

# Anusara Yoga

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Hatha Yoga in the Anusara Style

Third Edition

By Doug Keller

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# TABLE OF CONTENTS

<b>ANUSARA YOGA .....</b>	<b>7</b>
<b>THE PRACTICE .....</b>	<b>9</b>
A Matter of Principle .....	11
Three Elements of Practice .....	11
Form and Spirit .....	13
'Outer' and 'Inner' Body: Language of the Heart .....	17
<b>THE PRINCIPLES .....</b>	<b>19</b>
Principles of Action .....	21
Muscular and Organic Energy .....	21
The Focal Point .....	23
<b>THE SPIRALS .....</b>	<b>27</b>
Universal Principles of Alignment .....	29
The Five Principles Applied to the Legs and Pelvis .....	30
Your Foundation: Open to Grace .....	30
Muscular Energy .....	30
Shins In, Thighs Out .....	32
Inner Spiral .....	35
Outer Spiral .....	39
Organic Energy .....	42
An Example of the Spirals in Action: Trikonasana .....	43
The Four Corners: Your Foundation .....	47
Working with Your Feet .....	52
A Closer Look at 'Bunions' .....	55
Refining the Spirals .....	57
Refining Your Work with 'Shins In, Thighs Apart' .....	57
Of Inner Heels, Thighs and Sitbones .....	62
Taking Care of Your Knees .....	66
<b>THE LOOPS .....</b>	<b>69</b>
The Loops of Anusara Yoga .....	71
The Seesaw Principle .....	74
The Relationship Between the Loops, Focal Points and Spirals .....	76
The Ankle Loop .....	77
Loops in the Lower Body .....	77
The Shin Loop .....	82
The Thigh Loop .....	89
The Pelvic Loop .....	92
The Kidney Loop .....	96
Expressing Your Heart .....	99

The Psoas .....	101
The Effects of a Shortened Psoas on Posture .....	103
Spirals, Loops and the Psoas .....	106
The Focal Point Revisited: Finding Your Center .....	108
Envisioning the Focal Point .....	109
The Shoulder Loop .....	111
'Opening' the Shoulders .....	111
The Shoulder Loop .....	112
Basic Points for Aligning the Shoulders .....	112
The Universal Principles Applied to the Shoulders .....	117
The Actions of the Shoulder Loop .....	120
Practices and Applications of the The Shoulder Loop .....	122
The Head Loop .....	126
The Benefit of the Loops in the Upper Body .....	128
<b>REFINING THE LOOPS .....</b>	<b>129</b>
The Ankle Loop Revisited .....	134
The Shin Loop Revisited .....	137
The Thigh Loop Revisited .....	145
<b>THE BREATH .....</b>	<b>149</b>
The Breath and the Bandhas in Anusara Yoga .....	151
The Ujjayi Breath .....	152
Principles of the breath .....	154
The Bandhas .....	155
The Hatha Yoga Pradipika .....	157
An Anusara Exploration of The Bandhas .....	158
Uddiyana Bandha .....	158
Mulabandha .....	164
Jalandhara Bandha .....	169
Mahamudra .....	172
<b>THE INNER ARCHITECTURE OF THE TEMPLE .....</b>	<b>175</b>
The Heart .....	177
Chakras and the Prana Vayus .....	179
The Prana Vayus .....	179
Asana Principles and the Prana Vayus .....	183
The Chakras .....	184
Bibliography .....	187
About Doug Keller .....	188

# THE ANUSARA OPENING MANTRAS

**Om**

**Namah Shivaya Gurave**

I offer myself to the Light, the Auspicious Lord,  
Who is the true Teacher, within and without,

**Saccidananda Murtaye**

Whose form is Being, Consciousness and Bliss,

**Nisrapancaya Shantaya**

Who is transcendent, calm,

**Niralambaya Tejase**

Free from all outer support, and full of light

## Dedicated with Gratitude to John Friend

For setting forth the Anusara system for understanding and practicing yoga  
Beautiful in its simplicity and comprehensive grasp of the integrity of the body  
Highly refined in its application  
Always mindful of the spiritual significance of the inner work we do in yoga.

Also dedicated with Gratitude to my Students  
Whose honesty, earnestness and enthusiasm for yoga  
Make every class a fresh and mutual learning experience.

**Om saha Na-vava-tu**

May we, teacher and student be protected together

**Saha nau bhunaktu**

May we enjoy the fruits of our actions together.

**Saha vir-yam kara-va-vahai**

May we achieve strength together.

**Teja-svi na-va-dhitam astu**

May our knowledge be full of light

**Ma vidvi-sha-vahai**

May there never be discord between us

**Om shantih shantih shantihi**

Om. Peace, peace, peace.

# ANUSARA YOGA

This book offers an introduction to the practice of hatha yoga according to principles of Anusara Yoga. These principles express the wisdom and power inherent in the asanas or ‘poses’ of hatha yoga that awaits an awakening in your practice through the combined power of your own intention, understanding and effort.

Anusara Yoga is not limited to mere asana technique or technical instruction. At the heart of yoga there must be an inspiration – a feeling, an attitude, a ‘*bhavana*’ – which fills the practice with life, so that your yoga becomes a force that transforms your life in line with your own highest intentions – and in line with the intention of the Divine for you. Yoga begins with your choice to participate, your own intention – *pravritti* – which from the Sanskrit literally means a ‘turning’ of your heart toward your own highest good. Yet yoga is not simply an affair of human intentions; by turning toward your highest good, you draw closer to the greater, more inclusive divine intention by which we are all united.

The highest good we seek to experience through yoga is the abiding experience of our innermost Self. This Self is not the limited ‘I’ that we experience as doing, thinking, feeling and sensing. The Self is the abiding, expansive experience of ‘I’ that we have in moments of calm and peace, or in moments of mental focus, heartfelt compassion and service, and in the experience of unconditional love. The experience of the Self is always present and is at the root of our natural state of awareness; yet we are generally unaware of the presence of this expanded awareness as our minds become busied in the details of life. Our own awareness literally contracts as it adapts to and embraces our finite affairs, and we forget that we can step back and experience the glory and peace of our natural awareness even in the midst of our affairs. Yoga is the practice of ‘re-collecting’ and returning to this state again and again until we once again become settled in it as our home.

This state at its most immediate means to be fully in the present moment as the true and eternal reality. It is in this moment – the ‘Now’ – that Consciousness is present in its fullness, undiminished by the mental ideas and impressions of past and future, and fully potent to realize its creative freedom, its *svatantrya*. The inner state of yoga is not static; it is a state of being in the flow of the freedom of universal consciousness. In this state there is the quietude of being centered in the still point around which all things turn; it is a state of perceiving and realizing stillness in movement, as well as movement within that stillness, because we become stillness itself. A yogic asana or posture, a yogic breath, a yogic mind or heart, holds the experience of stillness and movement, one inside the other, one constantly transforming into the other.

The experience of being ‘in the flow of grace’ in your practice of yoga – which is the literal meaning of the Sanskrit term ‘Anusara’ – is a living experience not easily communicated through instructions in a book, since so much of the experience is the direct outcome of what you bring to your practice and how you participate in what the yoga has to offer. The technical details, though powerful and effective, are secondary, since yoga is an unfolding from your heart, from the fullness of your inner feeling, rather than from your head.

Just the same, technique is what I have to offer here, as a support to your own intention to unfold the beauty of your own heart through yoga.

# PRINCIPLES OF ANUSARA YOGA (IN A NUTSHELL)

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## TWO ENERGIES

Consciousness – as both inner awareness and outward physical manifestation – is experienced as a pulsation of two complementary energies:

**Muscular Energy:** inward-turning, contracting, centering

**Organic Energy:** outward-turning, expansive, expressive, creative

The essence of these two energies is Prana, which we experience in awareness, breath and physical movement. The pulsation of these energies is the pulsation of the one Divine Heart.

**The play of these two complementary energies in the body manifests as currents that flow according to the following principles, for the health of the whole, the embodied self:**

## TWO SPIRALS

The Spirals describe the balanced interplay of Muscular and Organic energy along the arms and legs that aligns and protect the joints, and integrates the actions of the limbs with one's energetic core or center – the central axis of the spine.

## SEVEN LOOPS

The Loops describe the balanced relationship of the flow of Muscular and Organic energy within and between seven sections of the body, and governs extension through the central core of the body, particularly in terms of the circulation of prana in both asana and pranayama

## THREE FOCAL POINTS

A Focal Point is a center of power or prana – the center toward which Muscular Energy draws, integrating the body, and from which Organic Energy expands and radiates, extending through the limbs.

**One** Focal Point is dominant or forms the energetic center of one's posture at a time, according to the body's relationship to gravity through its foundation.

## And Above All:

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## THE HEART

Yoga arises from the inspiration to become whole, to participate in the higher energy, awareness and purpose of life. This is the deepest desire of the heart.

Your feeling or highest wish is the true power behind your alignment, expression and experience of the pose, and your experience of the highest Self through yoga. To realize, experience and express that divine Self in one's own life, and to become established in that awareness, now and always, is the fulfillment of the heart.



# 1

## THE PRACTICE

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# A MATTER OF PRINCIPLE

Anusara Yoga, inasmuch as it treats yoga as an art no less than a science, teaches not according to rules or discrete instructions, but according to **principles**. In general, we can make the distinction in this way; a ‘rule’ dictates that ‘you must always do it this way;’ a principle advises that ‘experience shows that things usually go better if you do it this way.’

More specifically, a *rule* is relatively limited to its specific application; a rule or instruction for doing Trikonasana will have no clear application to a vastly different pose such as a backbend. But a *principle* is a general truth that is applied analogously – in a way both the same yet different, suited to the situation – in different situations. And so the same principle will apply with universal force and unique specificity to very different poses. Once you understand the **principles** of hatha yoga poses, you can do any number of different poses with deep understanding of the wisdom contained within them all, and benefit fully and uniquely from each.

## Three Elements of Practice

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*Anusara Yoga looks to three elements of practice that are distinctive of yoga, each of which has its own set of principles:*

### ATTITUDE

Attitude is the element of intention and will that is guided according to the teachings – both ethical and philosophical – of yoga philosophy.

Yoga as a practice of self-awareness begins with intention. Intention requires what is known in yoga as *sankalpa*. Sankalpa is the purest form of will; it is not self-will or narrow desire, but a pure wish for a positive good. Your sankalpa largely determines the fruits of your practice. The clearer your intention, the more definite and tangible the fruits. So it’s good to be clear from the start about the good that you intend in your practice, and to set your intention for yourself clearly. This isn’t necessarily a wish for personal accomplishment; many yogis offer their practice for a general good or someone else’s well being, directing the energy and good will behind their practice just as they would a prayer.

An intention introduces focus, not limitation. It should awaken and open you to the possibility of revelation and surprises. Hatha yoga has been since earliest times a spiritual practice by which we can attain greater spiritual self-awareness. Discoveries and insights come as unexpected gifts, as moments of grace.

And so Anusara Yoga urges that the first moment and highest principle of yoga is to open to grace. While this may at first seem abstract, ‘grace’ is not something unfamiliar to us. We recognize grace as that intangible element of beauty, of magical ease in art and all forms of self-expression that comes not as an automatic result of our calculated efforts, but as a gift, an unexpected radiance that rewards and blesses our practice. The best intention with which to begin your practice is to be open to the possibility of such grace, the promise that such beauty could reveal itself within you.

The invitation begins by taking a breath and softening with a smile, becoming open and receptive. Yoga begins when you allow your own sense of boundaries, limitation and difference to dissolve with the breath. This is the moment in which your practice becomes a spiritual endeavor. With this softening comes the opportunity to align yourself in the posture, to set your foundation in mind and body.

## ALIGNMENT

Alignment, in very simple terms, refers to the placement of the body in the pose. Instructions regarding alignment express relationships and set the shape of the pose, the vessel within which the alchemy of yogic action takes place.

- Alignment instructions prescribe the **placement** of the limbs relative to the central core of the body, and how the bones and joints line up relative to one another – how the foot is turned, how much the knee bends relative to the placement of the foot, how the sitbone lines up relative to the knee and so on. Such alignment instructions can also go deeper, to the placement of the inner organs. These kinds of alignment instructions are quite specific to the pose.
- On a subtler level, alignment extends to the **relation** between inner and outer body – most specifically, how harmoniously the movement of the breath or *prana* as an expression of mind and intention complements the posture. If breath and body are in conflict, your practice is missing the kind of inner alignment that really counts, regardless of how your posture appears outwardly.
- Awareness of alignment finally extends to your **‘inner posture’** – how harmonious your inner feeling and intention is with the outer posture, and how clearly the posture expresses that feeling. The postures of hatha yoga can be a tool for doing inner work if you are fully mindful of the connection between outer ‘posture’ and inner feeling. At this level, alignment expresses full Self-Awareness in the pose, which comes from steady, focused awareness of mind and dynamic symmetry within the body.
- The **Universal Principles of Alignment** serve to organize and integrate the various principles of alignment and action that are at work in each posture, bringing about the dynamic symmetry of the pose as a whole.

## ACTION

Action is the physical manifestation of our own power of will and intention that brings power, integration and balanced expression to each practice.

- The principles of action are those of **Muscular and Organic Energy**, organized around the idea of a **Focal Point** in each pose, which brings balanced action to the pose.
- These principles are vastly refined and powerfully articulated through the **Loops and Spirals** of Anusara Yoga. Most of this book is about the Loops and Spirals; but these are simply the natural unfolding of the fully conscious exercise of muscular and Organic Energy. They are the expression of the inherent wisdom of the body’s essential energetic form or pattern.

# Form and Spirit

The human body has its own unique form or energetic blueprint as the organizing principle that guides our physical and mental growth and development throughout our lives. Within this energetic structure we have tremendous freedom – more than any other creature on earth. Yet as we act or habitually carry ourselves in ways that are contrary to this energetic blueprint, the result is eventually the deterioration of our own free and healthy functioning – the aging process at its most un-graceful, the triumph of gravity over gusto.

Hatha yoga as a science and art of well being recognizes the power of time, unconscious habit and environment to wear us down, and offers its practices as ways of realigning ourselves with our own energetic blueprint in order to maintain optimal health on all levels. As strange as the postures of yoga may seem, they work to reestablish the flow of energies and physical processes according to their proper balance, as well as assist the body in its task of cleansing and refreshing itself from its labors.

When we align and work the body according to this ‘blueprint,’ the health of the joints is improved, and connective tissue and muscles become stronger, more resilient and flexible by being placed and exercised in proper relationship to one another. Overall body tone and the circulation of energy on all levels, even the subtlest or ‘pranic’ level, also improves. Through the actions of the bandhas, the subtler inner tone of the body – on the level of the inner organs such as the digestive organs, as well as the tone of the pelvic floor and diaphragm – is maintained, rather than allowing deterioration through age. Each posture and practice, in other words, is an opportunity for fine-tuning and adjusting ourselves from within. This is not necessarily something that the body can do on its own without some conscious effort on our part; gravity and unconscious habit are powerful forces that yoga is especially designed to overcome.

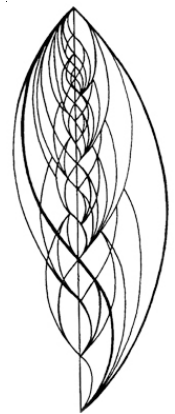
This ‘blueprint’ is neither static nor two-dimensional; what it describes is a field of energy. The body is formed and maintained by subtle energy fields that organize and direct its growth and regeneration, and there are fields within fields, one nested within another in subsystems that function by a kind of harmonic resonance. This fact is illustrated and articulated in its perfect mathematical expression as the ‘Golden Spiral,’ a logarithmic representation of the three dimensional nature of energy fields. Commenting on this Golden Spiral, Bruce Berger describes it in this way, suggesting a complementarity between more ancient yogic treatments of consciousness and the more contemporary treatments of energy in the unified field theory:

The fundamental features, structure, and function of all organisms are reflections of the fact that they are subsystems within the larger energy systems of nature and the cosmos from which they derive their energy and being...Such proportional harmonics of resonance from Spirit to matter are the basis of the unified field of nature and the cosmos.

Throughout all creation there is a step-down in vibration from the inner spiritual essence of the Life Field outward to a material manifestation. This step-down occurs through phases that reflect the Golden Spiral and sustain the theomorphic harmonics of force. The proportional harmonics of standing waves are fundamental to the organization of the body.<sup>1</sup>

As Berger suggests, if we were to look at the nature of energy itself – while acknowledging that *everything* is a manifestation of one energy – we would see a complex, spiraling unified field of infinite variety. Such a vision takes us beyond our everyday perception and conception of the physical universe. We would see beyond our own individuality to the greater field from which we derive our energy and being.

We as both spiritual and material beings emerged from, are sustained by, and ultimately merge back into this radiant, unified field of luminous energy that the philosophical traditions of yoga – Kashmir Shaivism in particular – call Consciousness itself, the Self, God. Yogic philosophy asserts that we are always at one with this Self because we are nothing other than That, regardless of how we may perceive ourselves at any moment. Each of us is a wave on this sea of spiraling, coruscating, shimmering energy whose very nature is freedom and self-

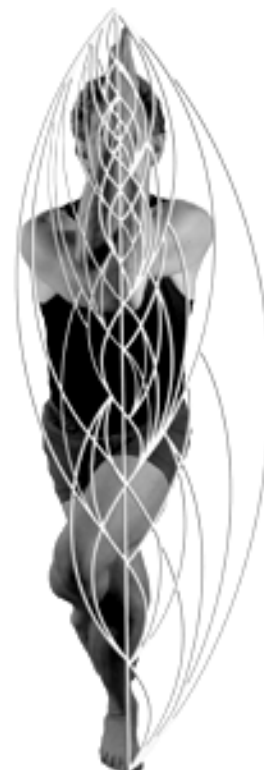
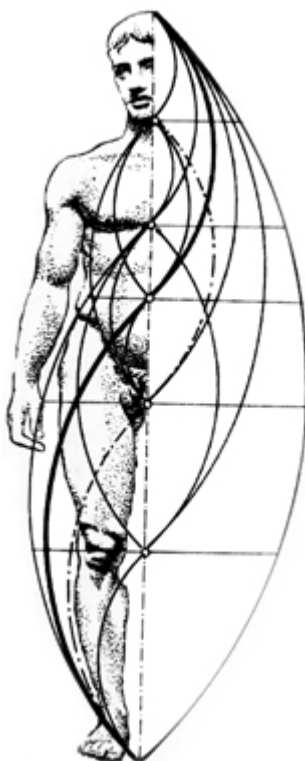


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<sup>1</sup> Esoteric Anatomy: the Body as Consciousness, Bruce Berger, North Atlantic Books 1998, p. 197

# SPIRALING

The energy of the body, like all other forms of energy, forms a field of energy which is a single, integral whole. All parts of the field are in harmonic relationship of resonances described by the mathematical model of the 'Golden Spiral.' The Spirals of Anusara Yoga express these energetic relationships in the body, connecting the many 'parts' of the whole in spiraling flows of energy into a single expression of the beauty of the embodied human spirit as a field of divine creative consciousness.



The resonance of the standing waves which define the energy fields of the body sustain a spiral helix whose center is the navel.

Spiraling from this center are the proportional harmonics which define the resonant organization of the energy fields of the body.

(Doczi, *The Power of Limits*)

## The 'Golden Spiral'

Energy fields nest within energy fields aligned by the harmony of the Golden Spiral.

(Doczi, *The Power of Limits*)

If you change the angle of any joint in the body, every other joint in the body compensates for this.

Thus, change the angle at the ankle, and the sacrum, pelvis, and every vertebra and joint in the body compensate to sustain the *harmonic of wholeness*.

(Berger, *Esoteric Anatomy*)

awareness. However we may rise and fall as waves upon this ocean, we are never anything other than the ocean itself.

This may seem like a huge leap beyond anything that science would allow. But the leap is not unjustified. Science describes and explains fact so that *we*, who are *not* merely detached observers, but actively engaged participants in the dance of life (as scientists are too), may take the natural and entirely intelligent step from fact toward meaning.<sup>2</sup> The Persian poet Ghalib long ago expressed the meaning behind this contemporary vision of the universe as a unified field in this way:

The world is nothing more  
Than Beauty's chance to show Herself.  
And what are we? –  
Nothing more than Beauty's chance to see Herself.  
For if Beauty were not seeking Herself,  
We would not exist.<sup>3</sup>

There are few more succinct statements of the meaning of life than this.

Hatha yoga is an entirely practical and amazingly effective exercise of this enlightened understanding of the body and of the fields of energy by which the body and mind function. More profoundly, hatha yoga presents an invitation to fully and to consciously participate in Life by actively appreciating (not in theory but in practice!) the Beauty that we are. We fully 'own' our true Beauty of body and spirit through practice, and hatha yoga is especially in this respect a thoroughly spiritual practice, a lived truth.

Yoga in all its forms is itself the endeavor of the creative power of the universe – Spirit – to see and know Her own Beauty through us, Her creation. Through yoga we awaken from our own individual and limited perceptions to the Beauty and Truth of the whole, of our selves as Spirit and the manifestations of that one Spirit in countless forms. Hatha Yoga is one such practice within the Pantheon of Yoga; its *asanas* or poses bring us to experience and express the integrity of the body as a whole according to its own energetic form, moving us from our immersion in our physical life toward experiencing the higher creative intelligence of the universe at work within us.

*How* do we come to experience this? We engage with this divine creative intelligence through alignment of and action within the body in ways that reveal and revel in the spiraling resonance of energies that sustain our body and maintain our harmony with the whole. Simply to *do* yoga consciously with this intention *is* to be connected.

How do we *know* we're connected? Through our own inner feeling. When we're 'in the flow,' we *feel* good on a deep and profound level, with the sense of ease that comes from experiencing harmony between mind and body, self and world. To be spiritual in yoga is to savor and express what and who *we* truly are – rather than attempt to become something 'else' that we think we're not, or to compare ourselves or compete with others. This is the way of being in harmony with the Truth; it is the enlightened appreciation and acceptance of our own innermost nature or Self. This feels good; it feels right, in mind and body. It liberates us from our struggles with false perceptions of ourselves and our relation to our world.

Yoga has from its very beginnings addressed the issue of false perceptions, labeling our ordinary perception of the world of stable 'objective' reality as illusion or *Maya*, with the recognition that the things in life in which we invest our hopes for happiness inevitably and painfully disappoint us by their very temporality. In the older, more ascetic yoga philosophy, we were advised to turn away from the illusion of the world and seek the experience of the permanent, unchanging Truth, the Self or *Atman*. This is how yoga is still commonly looked upon today,

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<sup>2</sup> One could easily make a case that we do not perceive facts or recognize their truth (read 'relevance' or significance) except in the greater context of our heartfelt interest in meaning. Factual knowledge becomes intelligence through the recognition of meaning, by which the facts are comprehended and related in a way that reveals their value or significance.

<sup>3</sup> The Inner Treasure, a collection translated by Jonathan Star, p. 141



as an otherworldly, even life-denying philosophy that devalues the world in favor of one's own self – yoga as noble narcissism.<sup>4</sup>

Yet at or around the 9<sup>th</sup> century A.D. a revolution in thinking took place that was the inspirational spark behind a vast emerging school of thought known as Tantra. Rather than turn away from the illusion of the world as false (i.e. impermanent), we were advised instead to look much more closely at the illusion to see the Reality that is behind (rather than apart from) the illusion. With that, yoga became a practice of wholehearted (and extraordinarily disciplined and enlightened) engagement with the world rather than the previous ascetic tradition of distancing oneself from it. With this shift in thinking, hatha yoga, because of its emphasis on the starting point of the physical as the foundation for the spiritual, flourished as the kind of practice of *asana* that we know today.<sup>5</sup>

The teaching at stake is that the physical is the portal to the spiritual. Our lesson in this life is to connect with God, the Creator, *through* His creation; and the only way to experience His creation is in and through own body. In this book, we'll be focusing on making this spiritual connection by means of bringing about physical balance and harmony within, through the practice of hatha yoga according to the principles of Anusara Yoga. Yet even in the thick of physical technique, we shouldn't lose sight of the spiritual significance of this practice, lest we risk exercising the heart while losing touch with our soul. Alignment and action in yoga are expressions of a spiritual intent and attitude that places physical work in a much larger perspective.

In the more technical mode of expression connected with bodywork, Bruce Berger makes the same point<sup>6</sup> in this way:

"If you watch a person running, you can witness the harmony and balance of the movement of the joints as a whole. This movement makes transparent our alignment with the energy fields of nature. The range of motion of the joints is the way the body reflects the standing wave patterns and aligns itself with the implicit order of nature and the cosmos. The entrainment of the standing wave patterns of the body is the way that the body receives energy, through sympathetic vibration, from the larger systems of nature.

Enhance the range of motion and resilience at the joints and you promote a receptivity in the body for resonance with a deeper level of harmony with the finer forces of higher intelligence. Much profound body therapy focuses on enhancing the range of motion and resilience of the joints, sacrum, spine and cranial sutures... This allows the sacrum and the cerebral spinal system to resonate with a finer harmony of receptivity to Spirit. The body can then come into harmony with the finer forces of higher intelligence, within the standing wave patterns which open the door to health and happiness."<sup>7</sup>

Similarly, *our* focus on the principles of the loops and spirals in Anusara yoga aims at promoting the same kind of mobility and alignment which, to put the same point in more classic yogic terms, attunes us at the very core of the body – the Sushumna nadi – to the wisdom and grace of the divine and intelligent creative energy of the universe – known in the yogic tradition as the Kundalini Shakti – as she unfolds through the *chakras* or energy plexuses of the body to bring about this same kind of resonance by which greater receptivity to Spirit arises.

Yoga also recognizes the obstacles to this process that are not merely physical. There are psychic blocks or 'knots' (*granthis*) that have formed in these centers in the course of our life's journey – ways in which we are 'stuck' – that inhibit true self-perception and self-expression. When they are 'opened,' these chakras become the medium of experience and expression between the mind/body and our innermost self as we walk the spiritual path.

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<sup>4</sup> This is of course an unfair popular interpretation of Vedanta that could be addressed on its own terms, but is an argument we won't get into right now.

<sup>5</sup> The long development of thought by which this vision came to pass is treated in my book, *The Heart of the Yogi*. See [www.Doyoga.com](http://www.Doyoga.com)

<sup>6</sup> It's worth noting that Berger's work concerns polarity therapy, which is directly inspired by the same philosophy of Kashmir Shaivism that provides the philosophical underpinning for Anusara Yoga. Here he makes the same point about the essential link between physical work and spiritual well being that Anusara Yoga recognizes.

<sup>7</sup> *Esoteric Anatomy: the Body as Consciousness*, Bruce Berger, North Atlantic Books 1998, p. 205



The practice of yoga is meant to untie these ‘knots’ on every level – not just the physical. For this reason, yoga is a practice not just of opening the body, but of opening the *heart*, and is an affair of the heart, not merely a physical practice. The challenge in a hatha yoga practice is to see *beyond* the body, perceiving these ‘knots’ that hold us back on the subtlest levels and approaching our practice with an attitude and understanding by which we can undo them. In the course of this unfolding, we raise our awareness to higher and higher levels to experience infinite Spirit as our true nature. To then become established in this experience while living our life in this world is the very summit of yoga practice.

## ‘OUTER’ AND ‘INNER’ BODY: LANGUAGE OF THE HEART

Traditionally in yoga — from the time of Vedanta — it was recognized that we have not just one body, but five ‘sheaths’ or layers of being, each layer having its own level of experience:

1. The *anna-maya-kosha*, or the physical level that was described as being composed of ‘food’ — flesh and bone;
2. The *prana-maya-kosha*, or the pranic sheath composed of the life force, the vital power or Prana that moves the breath;
3. The *mano-maya-kosha*, or the sheath of the mind or *manas*. ‘Mind’ on this level has simply to do with interacting with the world through interpreting sensory experience;
4. The *vijñana-maya-kosha*, or the sheath composed of understanding, which involves the higher functions of intelligence;
5. The *ananda-maya-kosha*, or the sheath composed of bliss. It is at this level that we participate in, feel and radiate the bliss, the essential nature of the Divine.

From one perspective, we could think of these as deeper and deeper levels of inner experience, to move from the merely physical inward and closer to the heart. From another perspective, each sheath is actually a larger envelope that encompasses the previous sheath. For example, the prana — the breath — is an experience of the self-as-breath that is even more expansive than the physical experience of the self-as-body; the mind is an even larger and more inclusive sheath of awareness than the breath, and so on. The sheath or body of bliss is the most expansive and radiant of all. The two perspectives complement each other; to go *deeper* inside is to become *more expansive* and inclusive at the same time.

In Anusara Yoga, our purpose is not simply to linger at the physical level. We work with the outer body so as to reveal and revel in the ‘inner’ body in its fullest expression. The teaching of yoga philosophy regarding the five ‘bodies’ helps us to understand this. It suggests that in our practice, the experience of the breath is even greater than the experience of physical alignment and action; the experience of the mind and understanding, which encompasses the many virtues that arise from a heart-oriented understanding, such as kindness, courage, patience, trust, integrity, purity, contentment, enthusiasm, devotion, compassion, and even playfulness, goes even beyond the simple power of the breath, making our expression of the poses uniquely human, divinely human. The experience of bliss goes beyond even such mental representations, and this bliss is our truest heart, shining forth and enveloping us in the wonder of our inherent unity with the Divine.

For this reason, our purpose and instruction in teaching and practicing Anusara Yoga is to evoke, express and celebrate these deeper, more expansive and inclusive experiences of our own self. If we go only so far as thinking in terms of physical alignments and actions, we may get stuck in our ‘smallest’ experience of self, the physical body. The breath is greater, and carries us through the poses, making a single integrated whole of the many ‘parts’ of the body we seek to align; yet there is an experience of heart qualities even beyond the breath that arise from our understanding and intention. And so when we contemplate and invoke these qualities in our practice, we go even beyond the breath.

Ultimately, if we stop even at these qualities, we can still get stuck in a mental world of thought and intention, still thinking in terms of our individual self in relation to the world, for these are yet only relative virtues. Yoga teaches that there is something even beyond this: it is the bliss of our innate oneness with the Divine even in the play of this world. Yoga is meant to evoke this bliss that illumines the world. For this reason, Jesus taught both that the Kingdom of God dwells within, and that we are the light of the world. We are not meant to hide that light under the ‘bushel’ of the body and mind. This has been the teaching of all the great enlightened sages.

This is the ‘big picture.’ It can be enough to evoke these deeper and more expansive experiences simply to remember to soften our outer (physical) body and let our inner ‘body’ be bright and shine. The breath makes us shine in our practice; the conscious qualities of a great heart and understanding makes us shine even brighter; and our inner bliss, our true nature, shines brightest of all.

The outer physical body can limit and dampen this light, especially when it becomes a preoccupation. The body must certainly be taken care of and healed, or else it is hard to get beyond it and the problems caused by physical ‘knots.’ The mind too can dampen the light — perhaps even more so than the body — as we become preoccupied with our psychic or mental ‘knots’ or *granthis*.

Yet these knots are only shadows, existing only because of the light of our own Consciousness, our own understanding of ourselves. The way to dissolve these knots is to see beyond them, invoking the light that is limited only by our own understanding, the light under which these ‘knots’ are only shadows that are dispelled in the full light of day, the full light of our own bliss. We begin our practice by softening our outer body (even while working with it in many challenging ways) and letting our inner body, our bliss, our *ananda*, shine. Then we realize our true purpose in our yoga, to live in our true body, to be our true Self.

# 2

## THE PRINCIPLES

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# PRINCIPLES OF ACTION

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## Muscular and Organic Energy

The currents of energy that flow in Spirals and ‘Loops’ in the body are composed of two kinds of energy that we work to keep in dynamic balance. Every hatha yoga pose demands that we actively exercise and consciously bring about a balance between the two:

- **Integrative** energy – ‘**Muscular Energy**’ – a current of energy that firms inward from the periphery toward the core. In its simplest sense, Muscular Energy is that which firms the muscles at work so that they draw close to the bone with a feeling of strength, support and assurance – a very different quality from ‘tightening’ or flexing the muscles for show.
- **Expansive** energy – **Organic Energy** – a current of energy that expands, flows and radiates outward from the core, bringing about extension with a feeling of lightness, freedom, suppleness and ease. We usually associate ‘stretching’ with the development of Organic Energy, but the qualities associated with the expression of Organic Energy in a yoga pose set it apart from the experience of just a good stretch.

The keynote of these two ideas is **balance** and **integration**, which comes about through awareness of a Focal Point or meeting place of the two energies. In a hatha yoga pose, to engage ‘**muscular**’ energy is to firm the muscles, ‘hugging’ them to the bones while directing the flow of this energy *inward* toward the core of the body. ‘**Organic**’ expansion complements that integrative force with a lengthening and extension *outward* from that core. The energetic core around and through which these energies play in a particular pose can be called a Focal Point. Thanks to this interplay, although a pose may *look* static and unmoving, we can experience it as a living, dynamic pulsation of energy, of fully integrated self-awareness expressed through the body. By contrast, *without* the awareness of the role of *both* muscular and Organic Energy organized around a Focal Point, hatha yoga can indeed amount to little more than stretching and ‘holding’ poses.

When both energies are incorporated into one’s practice, yoga is not only safer and more beneficial; it also transcends the merely physical experience of the practice. Muscular Energy brings self-awareness – receiving, embracing and drawing inward to the self, while Organic Energy is expansive, expressing our unique selfhood outward in a way that embraces and affirms the unity of self and world. The balance between the two fosters a strong and open heart.

**Muscular Energy** is extrinsic, moving from the outside inward. It is an intensifying energy that imparts firmness in the way that the bark of a tree gives it strength and integrity, providing the stability to grow and expand.

**Organic Energy** is intrinsic; it is a liberating current of energy that flows from the inside outward, like the flow of sap from the roots to the leaves in a tree. Organic Energy is the power of growth and expansion itself – softer, subtler, but in combination with Muscular Energy brings far greater strength than reliance upon the extrinsic strength of Muscular Energy alone. Imagine the force that drives the sap upward to the leaves of a 60-foot tree, or drives the roots to penetrate and split solid rock! Yet all too often when faced with a challenge we brace ourselves and try to ‘muscle’ our way through, rather than go deeper inside and balance outer strength with a deeper, expansive wellspring of power arising from the core. The word ‘organic’ when applied to yoga is meant to express this deeper core energy that is not found merely in the working of extrinsic muscles, but is the supple strength that is the essence of growth, youth and healing.

This is *not* to say that muscles are *not* involved in Organic extension. In the exercise given below, muscles are of course being used in the ‘organic’ arm – the difference is that through the *intention* behind organic extension, we access deeper supporting and postural muscles that are not ordinarily under our voluntary control. In the body overall, these more intrinsic muscles governing posture that are able to hold firm while in extension can be more steadfast than extrinsic muscles that work primarily by shortening through contraction (such as the bicep). For this reason, a relatively slight person can often hold a handstand far longer than a more ‘muscular’

person. She calls upon a deeper strength, which works in *conjunction* with Muscular Energy, but is not limited to it.

People by nature tend to have one or the other of these energies predominate in their physical makeup. Some are more hard and muscular, while others are soft and organic. If one of the two energies far exceeds the other, it can be a weakness. The overly muscular person is so tight as to be immobile – literally ‘muscle-bound.’ This kind of inflexibility is the result of a struggle; the muscles strongly contract, bunching up in opposition to each other without being balanced by a current of Organic extension. The muscles have only learned one action, which is to contract, and the predominantly Muscular person typically experiences ‘tightness’ from the muscles pulling up short.

‘Stiffness’ is something different, and is often due to a *lack* of Muscular Energy. A ‘stiff’ person, has both *weakened* and shortened muscles – usually through disuse – and actually needs to engage more Muscular Energy before attempting to stretch or extend them. Flexibility begins with strength. When we try to force the body to be flexible through ‘stretching,’ without engaging Muscular Energy, we risk injury and fail to bring about a healthy lengthening of the muscles. In other words, we cannot become more ‘Organic’ except by the path of Muscular engagement. By the same token, if we emphasize the development of muscular strength with little or no attention to Organic extension, we risk stifling the innate suppleness of our life energy.

At the other end of the spectrum, Organic Energy in the absence of Muscular Energy is sorely lacking in a particular kind of strength. An organic person may be strong – able to move into very flexible positions such as a deep backbend and hold them – yet can be so fluid as to lack core strength. She is so loose in the joints that she is challenged to pull herself together to protect the joints and integrate the actions of the body in a more balanced way. Yoga can actually be *more difficult* for the overly organic person, because her body does not provide a firm vessel for this energy that imparts a sense of a center, as well as of limits and of boundaries. An organic person can end up overextending in a stretch to the point of injury, not having a sense of where to stop. Flexibility ceases to be a virtue when one moves beyond the limits of what is healthy for the body; this is an important distinction between yoga poses and circus feats. Flexibility (Organic Energy) must be integrated and supported by strength (Muscular Energy), just as strength (Muscular Energy) must be unlocked and completed through flexibility (Organic Energy).

The *point* of yoga is to bring these two energies into *balance*. Each is distinct from the other, having its own distinct qualities.

# The Focal Point

While strength lies in this steadfastness, the texts of yoga<sup>8</sup> often point out that we come in contact with the source of that strength, the heart of the pulsation, as a direct and practical experience. This experience is available to us in moments of unexpected joy, surprise, wonder or even fear, and it comes in the form of a spontaneous stilling of the mind. In those moments the mind is at an impasse, stunned by the experience – for better or worse – and not knowing which way to turn. When the mind is stopped in such moments, our ordinary awareness is turned toward a deeper place of inspiration within.

The yogi – thanks to his practice and vigilance – is able to ride that wave, using that momentary arrest of the mind to enter the heart of awareness. That ‘place’ inside to which we turn for answers, for strength, inspiration, or to feel the throb of love bursting forth from within, is our true center. The yogic tradition calls this the *Madhya*, the ‘middle,’ the center between two thoughts. If are able to drop into this state of awareness when events throw us back upon ourselves, we can experience the strength, light, wisdom and bliss of our deeper, true Self shining forth. We touch this place in difficult situations when we just ‘know’ with absolute clarity and certainty what to do, or when we act spontaneously with love and wisdom ‘from the heart.’

Our practice of yoga is meant to take us to this place again and again until it becomes our home. This is the place where Muscular and Organic Energy meet, in a center we might call the ‘Focal Point’ for the experience, the ‘place’ where the yogi instinctively finds his power.

The very difficulties and challenges of a hatha yoga practice – such as our first encounter with a handstand – throw us back upon ourselves to find our strength and courage from within. The experience of tapping into that place of strength is exhilarating and empowering, and full of joy. But these are only extreme cases; yoga is not just a form of thrill-seeking. The practice teaches us to enter this place of power and awareness at every moment, in every pose. In Anusara Yoga, this yogic intention to enter the heart is given very concrete and practical application as the principle of the Focal Point.

The Focal Point is the epicenter of the pose. In its more physical application in the poses, the ‘location’ of this Focal Point in the body varies according to the nature of the pose. The **Focal Point** is that central point *into* which **Muscular Energy** draws, integrating the pose, and *from* which **Organic Energy** radiates, expressing the pose. In other words, when a pose is done with awareness of the appropriate Focal Point, the whole pose feels more integrated and whole, and the extension and expansive awareness by which the pose shines seems to radiate equally from all parts of the body. Yet while the Focal Point is spatial, the heart is not; in its deepest sense, the pose comes not from any particular place in the body, but from the Self, the heart of awareness.

As a practical principle for balanced expression of the pose, we can identify three possible Focal Points. *Which* of these three Focal Points is the center of power in a given pose is determined according to which section of the body is the most weight bearing – whether the pelvis (via the legs or sitbones), upper body (via the shoulder girdle and arms), or the head (via the neck).

<sup>8</sup> Such as the *Vijnanabhairava* in the tantric tradition of Kashmir Shaivism

## THE THREE POSSIBLE FOCAL POINTS:

1. The **Core of the Pelvis** – a point within the pelvis a few inches below the navel, in line with the bottom of the sacrum where the tailbone begins.
  - Active in standing and sitting poses, in which the pelvis is the most weight-bearing part of the pose.
2. The **Bottom of the Heart** – where the heart rests on the top of the diaphragm in the core of the chest.
  - Active in Downward Facing Dog Pose and in most arm balances
3. The **Center of the Upper Palate**
  - Active in inverted poses, in which the head is part of the foundation, such as the headstand and shoulder stand.



In each case, the Focal Point provides the center — relative to gravity — from which the greatest grounding through the foundation and extension through the core lines of the body takes place. If, for example, we were to try to extend from the Focal Point in the pelvis in a handstand, there wouldn't be as great a feeling of grounding and extension through the body as if we were to extend from the Focal Point in the heart, and the pose would be less stable. Thus the active Focal Point in a given pose is **determined** relative to the part of the body that is most weight-bearing in establishing the foundation, and the Focal Point itself is defined, as we shall see, by the intersection of the major Loops involved in that part of the body, whether in the area of the pelvis, shoulder girdle or head.



## MUSCULAR ENERGY

Muscular Energy literally pulls us together in a pose; it brings a masculine quality of firmness, strength, security and power. Muscular Energy, like the surface tension on a drop of water, establishes the firm sense of self by defining boundaries. This firmness is necessary if we are to expand while yet maintaining a sense of the integral whole of our being expressing itself through each part.

**Muscular Energy** flows in the following ways:

1. Hugs the **muscles** to the **core lines of the limbs** and torso evenly on all sides. For example, Muscular Energy in the thighs firms or ‘hugs’ the muscles on all sides of the thigh to the thighbone.
2. Draws the **limbs** toward the **midline of the body**. This centers the body energetically in the pose along its midline, as in Tadasana or the Mountain Pose.
3. Draws energy from the **periphery** of the body inward toward the **Focal Point**, compressing or ‘snugging’ the heads of the bones into the joints to provide stability and integration of the actions of the limbs with the torso, protecting the joints from injury. Muscular Energy is drawn in each muscle from insertion to origin, and ultimately toward the Focal Point, as all rivers ultimately run to the sea.
  - a. Muscular Energy also draws from the **Foundation** of the pose – that part of the body in contact with the earth, whether directly or indirectly through a prop – into the Focal Point. The dynamic relationship between the Foundation and Focal Point through the play of muscular and Organic Energy provides the rooting or grounding of the body in the pose that gives it freedom and power.

## ORGANIC ENERGY

Organic Energy plays upon the firmness of Muscular Energy; it expands and extends outwards from the core through the bones. The balance of Muscular and Organic Energy brings a deeper, stronger, more intrinsic energy that brings lightness, expansion and freedom of movement. Organic Energy is the force that sends roots into the earth even as they draw nourishment inwards and upwards. Because Organic Energy often expresses itself through deeper, more intrinsic postural muscles not under voluntary control, imagery is very powerful for initiating Organic Energy.

**Organic Energy** flows in the following ways:

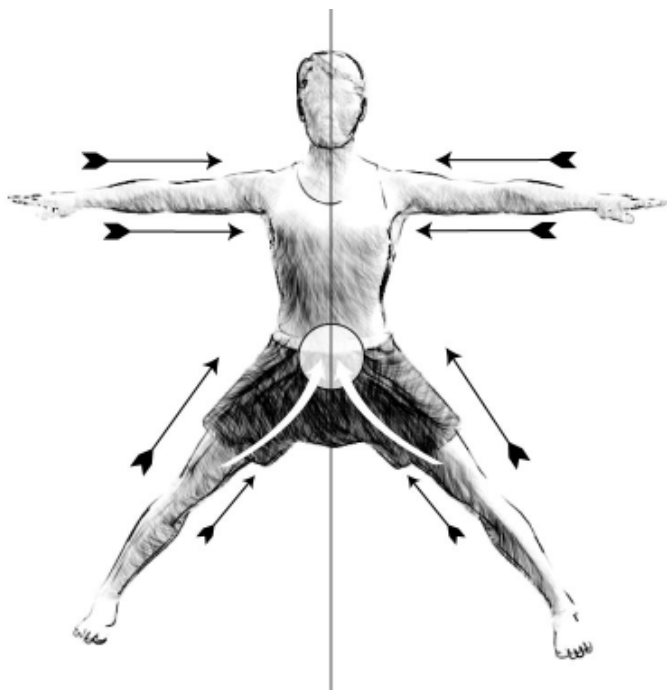
1. Flows from the **Focal Point** out along the core lines of the limbs to the extremities, bringing extension and freedom of movement in the joints.
  - a. Extends with a rooting action from the Focal Point down to the **Foundation** and through the central core or spine through the crown of the head (if the Foundation of the pose is the feet or pelvis). The rooting action is always joined with extension of the spine.
2. Expands the limbs away from the **midline**, creating space to move from the core or central axis of the body.
3. Shines from the **core lines** of the limbs out through the muscles to the skin. It is this organic expansion that makes the body and skin look radiant and full of light in the pose.

## AN EXERCISE IN MUSCULAR AND ORGANIC ENERGY

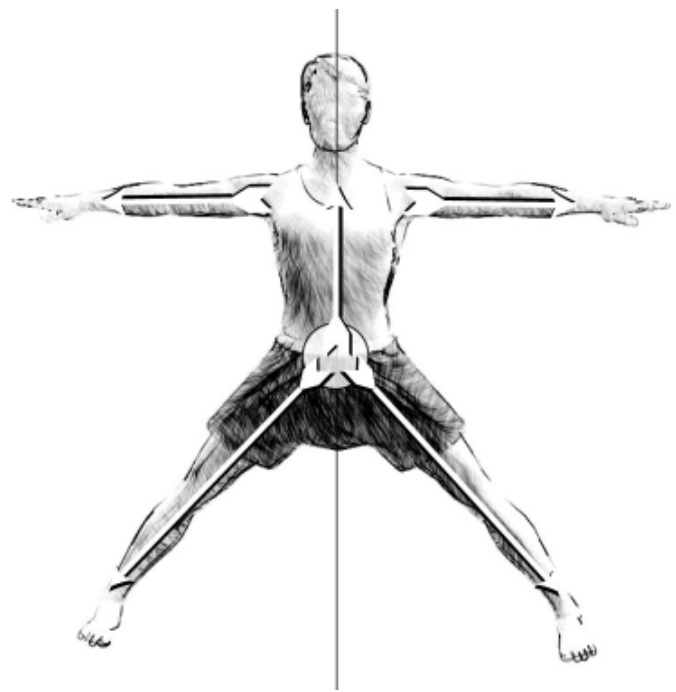
Stand with your feet wide apart – as wide as your hands with your arms outstretched – and turn your feet so that your feet are parallel with the ends of your yoga mat.

**Muscular Energy:** imagine you're standing on ice and your legs are about to do a split. Isometrically draw your feet toward each other; feel how the muscles of your legs firm – particularly the inner thighs – and energy draws up your legs toward the core of your pelvis, creating an inner muscular lift in this core.

**Organic Energy:** without losing this firmness and lift, extend from the core of your pelvis back down through your leg bones to root yourself firmly in the earth. Feel how energy can flow simultaneously in two directions – 'up' through the muscles and 'down' through the bones, as if you were pulling on long, tight boots. Also feel how, as you root firmly through your bones down into the earth, your spine releases and extends freely upward.



Muscular Energy



Organic Energy

# 3

## PRINCIPLES APPLIED: THE SPIRALS

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# UNIVERSAL PRINCIPLES OF ALIGNMENT

The Universal Principles of Alignment organize the various principles of action into five steps that can be applied specifically to the lower and upper body with a great deal of refinement in a way that is appropriate to each area.

The **five steps** to the Universal Principles of Alignment are as follows:

1. Setting the **Foundation** in Mind and Body
  - Physical alignment and inner opening to Grace
2. **Muscular Energy** / Engagement that creates stability in the joints
3. **Inner Spiral**
  - Refines alignment by positioning or placing the bones
4. **Outer Spiral**
  - Refines alignment by positioning the bones, balancing the aligning actions of the Inner Spiral
5. **Organic Energy** / Extension

These steps provide the logic for applying the principles progressively when practicing the poses. What actions the ‘**Spirals**’ specifically refer to depends upon the area of the body with which you’re working – whether the hips and pelvis, or the neck and shoulders.

The **Spirals** work primarily on the *horizontal axis* of the body to promote the health of the joints through proper energetic alignment as we open and extend in the pose – though the spirals do include a third dimension of extension, and so their actions naturally dovetail at key points with the actions of the Loops.

The ‘**Loops**’ further refine and articulate the basic principles of action on the *vertical axis* of the body, further promoting the health of the joints and particularly the health of the spine. The Loops go further to direct the upward flow of energy through the sushumna, the central channel of the subtle energetic body.

# THE FIVE PRINCIPLES APPLIED TO THE LEGS AND PELVIS

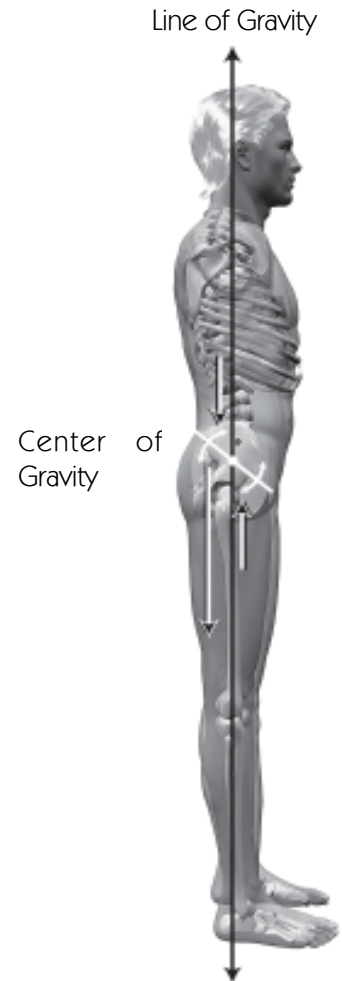
The Principles as applied to the lower body – the legs and pelvis – are primarily concerned with the energetic alignment of the bones of the feet, legs and pelvis in a way that best promotes the health of the feet and ankles, knees, hips and pelvis – including the health of the lower back via the actions of the hip bones, sacrum and tailbone.

## Your Foundation: Open to Grace

**Grace:** yoga begins with the heart. Inwardly, before making a physical effort, soften your sense of individual effort. Tension arises from a narrow sense of doership, and tension from a sense of doership will misalign you in every way. Instead, begin with a sense of opening and surrender, softening so that you can feel the alignment of the pose rather than imposing it mentally. Your relationship with gravity and with the *prana*, the life force, is something you have to *feel* first.

**Foundation:** the foundation of the lower body, whether the feet in standing poses or the pelvis in seated poses, has four corners which should be equally rooted in the earth. The work involved in achieving this will bring the body – the bones of the legs and particularly the central axis of the spine – not only in alignment with gravity, but with the overall energetic blueprint of the body.

The first moment in a pose is in both a profound and a practical sense a moment of aligning oneself – being open to experiencing a higher power at work, as well as checking in with exactly what is happening in your body. In this moment you connect the alignment of your bones with their rootedness through your foundation. It is a moment of coming home, of standing – literally and figuratively – squarely on your own two feet.



## Muscular Energy

Engaging Muscular Energy in the case of the legs sets up three progressive flows of energy:

### 1. Hug the muscles to the bone

With firmness and the secure feeling of a warm embrace, engage the muscles of the lower legs and thighs, so that on all sides the muscles ‘hug’ or squeeze in toward the central core.

Try the following to experience Muscular Energy, particularly to overcome hyperextension:

- If **standing**, bend your knees and lift your toes to engage the muscles of your legs. Feel your arches lift and your calves engage, hugging to the shinbones. Engage your thighs and hamstrings as well; with your knees bent, try to lift both feet off the ground at once (not that this will actually happen!) and feel your hamstrings and quadriceps engage. Without letting go of the engagement of the muscles, stretch your legs straight, extending through the bones. See how the balanced engagement of Muscular Energy supports and protects your knee joints, making it impossible to hyperextend.

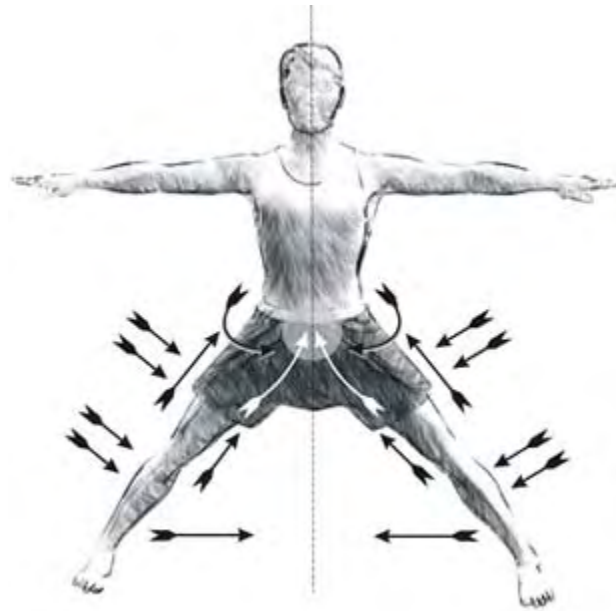
- If **seated** (as in a forward bend), bend your knee and isometrically press down and drag your heel toward you to engage your calf and hamstring muscles; maintain that firmness and straighten your leg by firming your quadriceps and extending through your heel. The calf and hamstring muscles resist, hugging to the bone and lifting at the inner knee; as you extend your leg straight with the strength of your thigh muscle, you'll be able to bring the back of your leg fully to the floor without locking or hyperextending your knee. Yet if your heel pops up off the floor, you know you've lost the engagement of your calf and hamstring, and hyperextended your knee.

## 2. Hug the Midline

toward the midline – the 'median plane'; this includes firming the muscles around the hipbones, drawing the energy of the legs and hips in toward the Focal Point at the core of the pelvis.

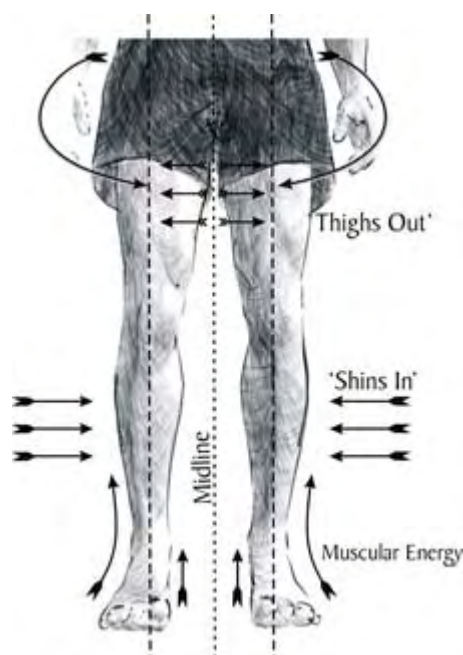
## 3. Focal Point:

- Muscular Energy draws from the feet through the legs into the pelvis, ultimately to the Focal Point in the core of the pelvis.



**Teacher's Note on Hyperextension:** beginning yoga students are often told to 'lift the kneecaps' as a way of encouraging them to firm their thighs. Although this is intended to prevent hyperextension of the knees, all too often it does not, because it encourages an imbalanced application of Muscular Energy. If the student's knees are *already* hyperextended, lifting the kneecaps can accentuate the locking of the knees, since the muscles at the backs of the legs cannot be engaged properly to support the joint against the hyperextension. The knees must first be bent in order to properly engage Muscular Energy.

## SHINS IN, THIGHS OUT



This dictum describes how to balance the work of the muscles of the outer and inner leg in order to support the proper alignment and tracking of the knee joint. It's a simple instruction that is specific to the work you do with the feet, knees and hips. Because of its specific application, it's not treated as a universal principle – but rather applies two of the universal principles in a particular way:

**'Shins-In'** is an application of **Muscular Energy** to the lower legs

**'Thighs-Out'** is a simplified description of the action that completes the **Inner Spiral** in the upper legs.

The 'In-Out' terminology can be confusing since we're used to hearing it applied to *rotations* of the thighs or arms, but it need not be so. 'Thighs-Out' can be confusing if we're in the habit of thinking that it means to **turn** the thighs out; but here 'Out' refers to the **lateral expansion** of the upper inner thighs pressing apart — i.e. away from the midline. By the same token, 'Shins-In' refers to the outer edges of the calves firming in toward the midline, rather than to any inward rotation.

### 'SHINS IN'

**'Shins In':** This describes a specific aspect of 'hugging the midline;' here we firm the muscles that run along the outer shins in toward the midline of the body, firming them to the bones of the lower leg. The end result is to create a kind of 'racing stripe' along the outer calves.

To practice engaging the outer shins, stand with your feet hip distance apart and bend your knees slightly:<sup>10</sup>

- Lift your toes, and particularly lift the little toe side of your feet, bringing weight to the mounds of your big toes. This creates the **'racing stripe'** up the side of your calf as the muscles of your outer shin firm in. The specific muscles involved are the peroneus muscles; a more detailed discussion of the actions and anatomy involved are given in the section of this book entitled 'Working with the Arches of the Feet.' For now, it's helpful to think of engaging the outer shins by **'stepping on the gas'** with the mound of your big toe, pronating the foot to lift and firm the muscles of the outer shin to the bone.
- While this action firms the muscles that run along the outer knee to protect it - particularly at the collateral ligaments - it also influences your knees to turn inward, making you more 'knock-kneed' by wrapping your outer calf muscles around toward the front. **This Muscular action of 'stepping on the gas' complements and naturally segues into the first action of the Inner Spiral**, which is to take the upper inner thighs back, deepening the groins.



'Stepping on the Gas' to (initially) firm the outer calves 'in'

<sup>10</sup> In most of the exercises involving the legs in this book, it's very helpful to bend the knees; this undoes the habit of locking the knees and allows more balanced engagement of the muscles. Moreover, it allows a clearer experience of the subtle changes in alignment and energy flow that take place in the exercise. In a word, it's easier to feel and see what's happening in the ankles, knees and hips.

<sup>11</sup> Abduction = the movement of a limb away from the midline of the body; Adduction, by contrast, draws the limbs toward the midline.



## ‘THIGHS OUT’

The **initial effect** of this upon the knees - that it makes you **‘knock-kneed’** - is **corrected by the second action of the Inner Spiral** - which is to take the upper inner **‘Thighs Out,’** broadening the pelvis at the sacrum. Here the muscles of the inner thighs firm and press out (away from the midline) against the thighbones, bringing the knees and ankles back into alignment. As this happens, weight is returned to the little toe mound, and to the degree that one extends out through the little toe, the peroneal muscle attached to the little toe activates, drawing the outer calf back, aligning the bones of the lower leg so that the knee tracks properly.

- With your knees still bent, firm the muscles of your inner thighs. If this is difficult to feel, place a yoga block between your inner thighs as high as you can. Firm your inner thigh muscles and draw the block back toward the back body, increasing the arch in your lower back while continuing to firm your shins in.
- Spread your toes, reach your little toes out to the side, and press your inner thighs apart until your knees are parallel. Think of the broadening as coming from the firmness of your inner thigh muscles pressing out against the bones; at the same time, there is an element of abduction<sup>11</sup> of the legs that takes place by isometrically pulling your feet and legs apart, bringing the knees parallel.

With the outer shins firming in, inner thighs pressing out until your knees are parallel, extend through the bones to straighten your legs. Notice that it’s more challenging (though not impossible) to maintain the actions of ‘shins in, Thighs Apart’ with your legs straight.

Maintain these two actions while bending and straightening your legs at the knees. Notice how the two energies of firming from the outside inward at the calves and broadening from the inside outward at the inner thighs help to track the knees so that they move in parallel planes, in line with the center of the foot.

These two actions are very important for maintaining the health of your knees, particularly when you are doing any pose that involves hip opening. Because the knee joint is a hinge joint, which does not allow for much twisting or torsion without injury to the ligaments. Firming the shin in while pressing the inner thigh out or apart supports the strength of the ligaments on either side of the knee, preventing twisting or torsion to the knee joint, especially when opening the hips.

### A Practice of Tracking the Knee with ‘Shins In, Thighs Out:’ Warrior 2 Pose

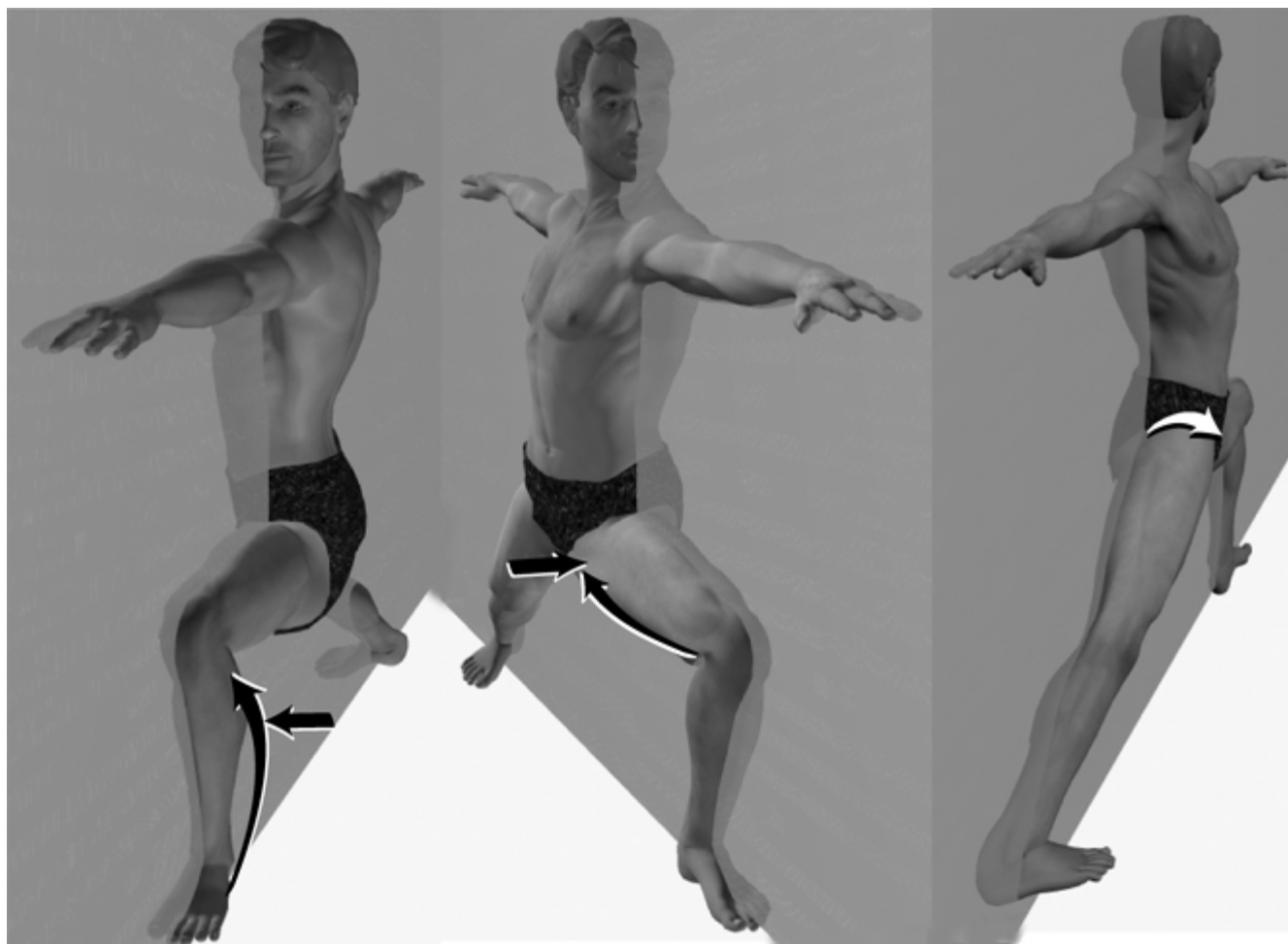
Stand with your feet apart wide and turn your right foot in about 45° and your left foot out 90°. Bend your left knee halfway, aligning the knee with the middle of your left foot.

Begin by drawing Muscular Energy equally up all sides of your legs, from your feet into your hips. Give special attention to firming your outer left shin in: lift the little toe side of your left foot, shifting the weight to the inner edge of the foot; this will firm the outer shin muscles to the bone (while also turning your knee inward somewhat).

To balance this action, also give attention to firming the muscles of your inner thighs: one way to feel this is to isometrically draw your heels toward each other, engaging the muscles of both thighs. Draw Muscular Energy back through your inner thighs toward your sitbones, deepening your groins and increasing the arch in your lower back. Keeping both your outer shin and inner thigh firm, spread your toes and press or broaden your inner thigh outward to the left, bringing your knee fully into alignment with the second toe of your left foot, and your weight is balanced between the inner and outer edges of your foot.

Bring your left hip down and forward toward the front body until your left sitbone is in the same plane as your left knee and heel. Allow your right hip to turn forward toward your front body just enough to accommodate this alignment of your front leg, but keep grounded through your right heel so that your right hip doesn’t collapse or drop forward.

Practice bending and straightening your right knee, coming into and out of Warrior 2 pose, while keeping your left heel, knee and sitbone moving in the same plane. Practice firming the outer shin ‘in,’ and firming your inner thigh and broadening it ‘out’ as you track your knee while bending and straightening it.

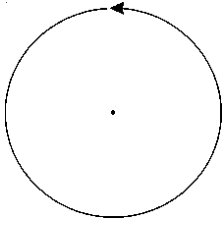


Firm your **‘Shin In’** by drawing Muscular Energy up along the outer edge of your calf — creating a ‘racing stripe’ — by lifting up along the little toe side of your foot.

Firm your inner thigh along the inner hamstring as well as at the adductors. Press or broaden your inner **‘Thigh Out’** so that your heel, knee and sitbone are in the same plane.

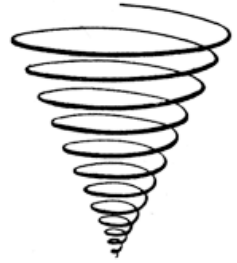
The **Inner Spiral** of your back leg will ‘wrap’ your hipbone forward, turning the hip just enough to allow you to align your front leg. Keep grounding through your heel to keep your hip from collapsing forward and down. The **Outer Spiral** balances the action of the Inner Spiral of your back leg, ‘opening’ your hips in a balanced way both at the back and front of your pelvis.

# Inner Spiral



A spiral is quite **different from a mere rotation**. A rotation is a movement around a center point or axis, but it does not by itself bring about extension or expansion.

A **spiral** does not simply rotate around a central axis, but also involves **extension** along the axis (either drawing-in or extending-out) and **expansion** (or contraction) relative to the axis.



A spiral provides a refinement of alignment that supports both the health of the joints and the full expression of the pose. The two principles of this spiraling of energy are: the Inner Spiral and the Outer Spiral. These are at the heart of the actions particularly of the lower body.

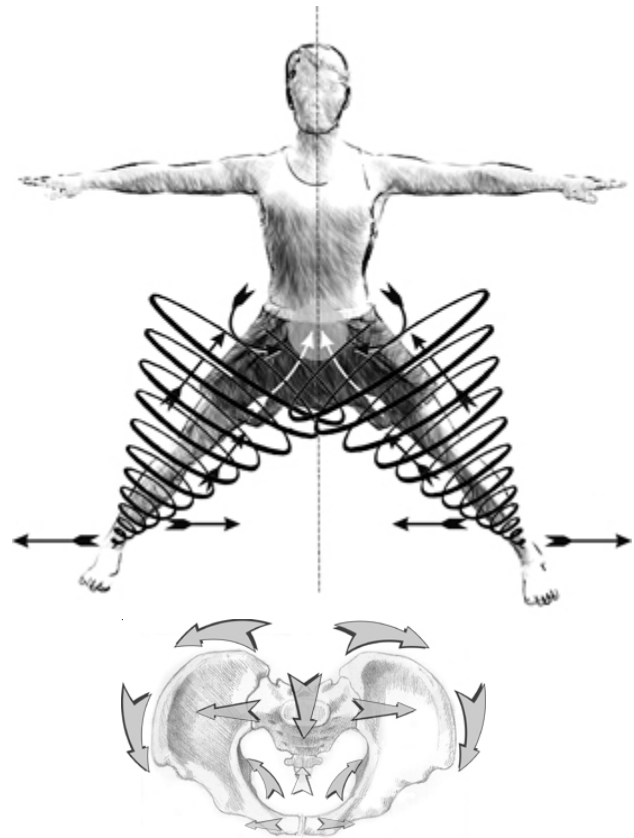
The first ‘Spiral’ – the **Inner Spiral** – naturally follows after **Muscular Energy** because the action of drawing in toward the core, stabilizing the bones in their joints, is the first step toward refining the alignment of the bones relative to the joints. The Inner Spiral is the first such refinement, because the Inner Spiral serves to center the bone in the joint before the Outer Spiral creates an opening.

## The Inner Spiral as an Expansive Force

This first spiral exerts an expansive force at the back body. The **Inner Spiral** of the lower body has a centrifugal, expanding force upon the sacrum at the back body.

As the upper inner thighs spiral inward toward the midline, deepening the groins, they move back and apart, creating **expansion** at the **sacrum**, which broadens as the hip bones wrap forward toward the Focal Point in the pelvis.

Through Muscular Energy — particularly the engagement of the inner thighs — the action of the legs is joined to the action of the hip bones, and they move more as a unit: as the thighs press apart with ‘Shins In – Thighs Apart’ the hip bones are caught up in the vortex and broaden apart as well. In this way the Inner Spiral as a whole draws upward from the foundation in the feet up to the tops of the hipbones, integrating many actions in the feet, legs and pelvis.



The pelvis broadens at the sacrum with the Inner Spiral as the hipbones ‘wrap’ forward.

## In simple terms, the Inner Spiral is this:

As you firm your thighs (Muscular Energy), turn your **upper inner thigh muscles** inward toward the midline, taking your inner thighs back. This is a ‘spiral’ and not a rotation because a broadening takes place: your upper inner thigh muscles *both* draw back and press apart (in keeping with the action of ‘Thighs Out’). This creates space to the inside of your hip joints, and your groins – the muscles at the hip crease (where your thighs meet your hips at the front body) deepen and soften. Your **sitbones** move back and apart with this action, increasing the **inward curve of your lower back** at the sacrum. Feel how your sacrum broadens as the front tips of your hipbones wrap forward toward the front body.

### **The biggest obstacle to doing the Inner Spiral effectively:**

Locking or hyperextension of the knees prevents the true action of the Inner Spiral, especially because the knees turn inward faster than the inner thighs when they ‘lock’ or hyperextend. As the inner knees push back, the tops of the thighbones are pushed forward, hardening the hip flexors (the muscles at the tops of the thighs as well as the groins). This is the very opposite of deepening and softening the groins as well as the expansion of the pelvis at the sacrum that is meant to take place with the Inner Spiral, and can cause an uncomfortable ‘grabbing’ of the muscles at the outer hips. To feel the true action of the Inner Spiral, it’s helpful – if not essential – to slightly bend the knees in order to ‘unlock’ them. Then the upper inner thigh muscles can spiral inward without the knees turning inward and making you ‘knock-kneed.’

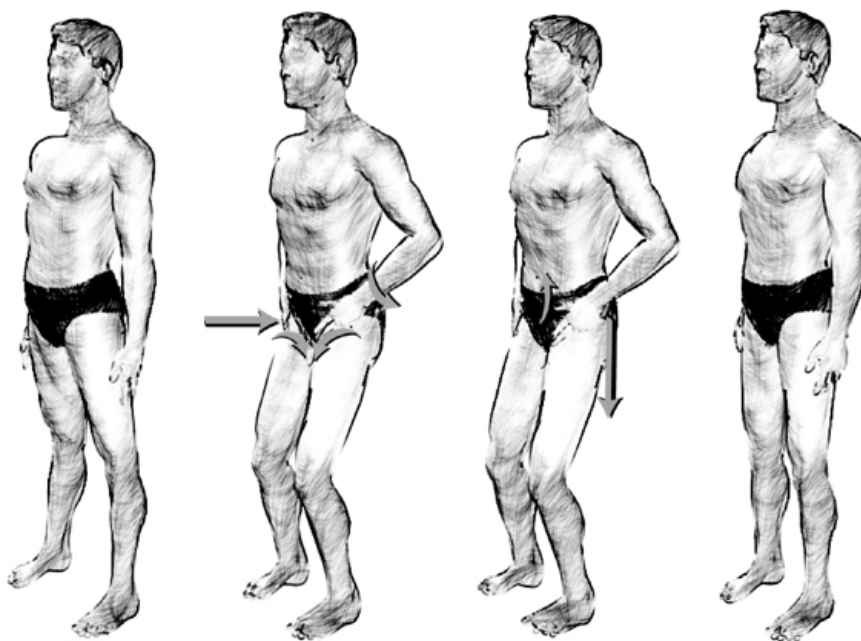
### **An Experience of the Inner Spiral:**

Stand with your feet parallel, about hip distance apart. Bend your knees slightly, so that the inner knees release forward, bringing your thighs and knees parallel to each other. Lift your toes to draw Muscular Energy from your feet up through your legs, lifting your arches in particular. Now shift your hips back so that your weight comes more into your heels, while arching your lower back inward (as opposed to ‘tucking’ your pelvis under). Feel how your groins – or upper inner thighs – soften at the hip crease and deepen or move back, spiraling inward. With this action you feel a softening or broadening at your sacrum, just below your waistline at your back body, as your sitbones move back and apart and your hipbones ‘wrap’ forward. The reason for keeping your knees bent is to prevent the knees from turning inward, so that you can feel these actions in your hips and lower back.

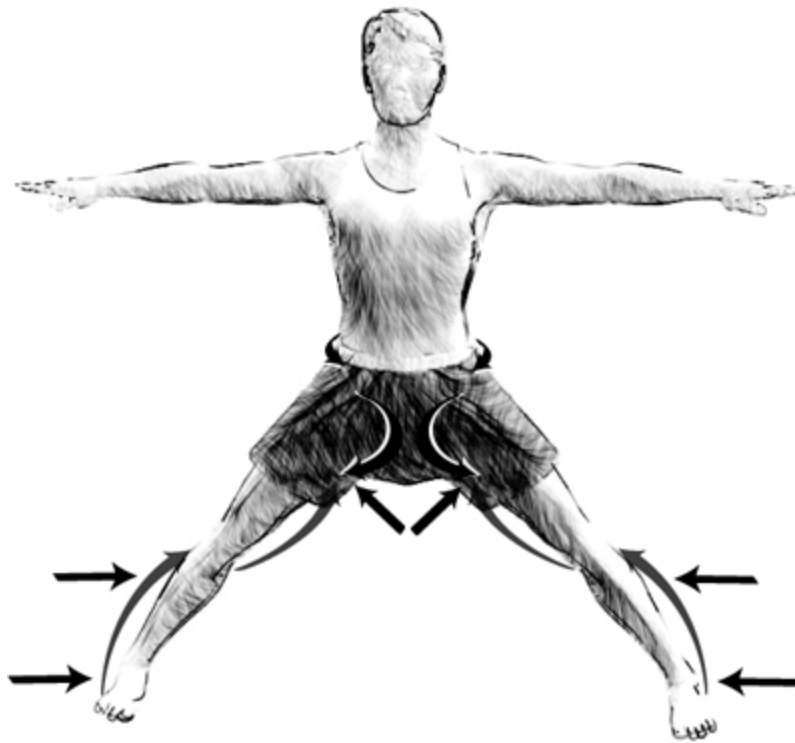
For comparison, try straightening your legs – even ‘locking’ your knees – and then turning the tops of your thighs inward. You may find that your groins at the inner hips feel tight or ‘stuck’ and there is not the same feeling of softening and broadening from the inside.

These actions of the Inner Spiral will be balanced with the lengthening action of the Outer Spiral, which will be explained in the next section. For now, you can complete the practice of centering by letting your tailbone become heavy so that it descends toward the floor; feel how the pit of your abdomen – your lower belly below your navel – tones and lifts. Keep your weight over your heels and your tailbone heavy, and straighten your legs while drawing Muscular Energy up on all sides; see how your weight feels more centered as you ground through your heels. With this grounding, your heart lifts and opens.

### **Other ways to experience the Inner Spiral:**



**With Muscular Energy:** stand with your feet **wide** apart and your knees slightly bent, turning your feet so that your inner heels are slightly wider apart than your big toes. Isometrically draw your feet toward each other to engage your inner thighs [Muscular Energy], drawing your legs toward the midline. Feel how this energy draws up through your inner thighs into the core of your pelvis, or lower belly. As you draw this Muscular Energy upward, draw your inner thighs back (turning the tops of your thighs inward), increasing the arch in your lower back as your sitbones move back and apart. Keep this inward tilt of the sacrum and your inner thighs engaged, and press your upper inner thighs apart. Feel the expansive force of this action, which broadens your sacrum at the back as your hipbones expand apart.



**With ‘Thighs Apart’:** In **Tadasana**, this can be practiced with a block placed high between your upper thighs. Start with a slight bend to your knees. Lift your toes to draw energy up on all sides of your foot to lift your arches (the mounds of the toes are still on the floor); give special attention to draw Muscular Energy up on the little toe side of your feet to firm your ‘Shins In.’ Firm your inner thighs by isometrically ‘dragging’ or pulling back through your inner heels. As you feel your inner thighs firming against the block, drawing the energy from your inner knees back toward your sitbones, spiral your upper thighs inward, taking the block back. This brings an arch into your lower back as your sitbones move back and apart. From the firmness of your inner thighs, press the thighs apart – you can help this action by isometrically pulling your feet and legs apart — as if trying to drop the block. Feel the broadening of your sacrum that takes place.

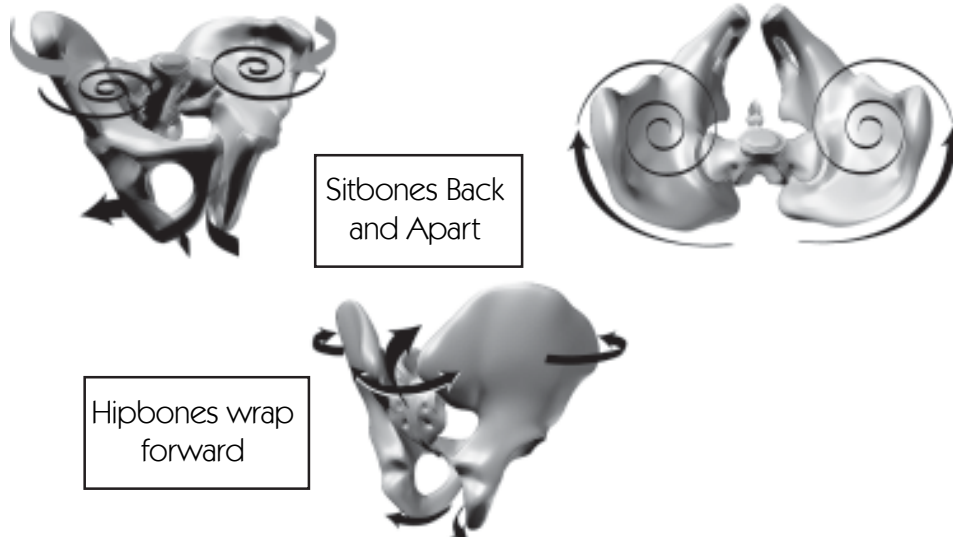


## Some characteristics of the Inner Spiral to notice:

1. The **connection between the inner heels and the upper inner thighs**: as you initiate the inner spiral, draw your inner heels back and apart (i.e. away from the midline) stretching back from the mound of your big toe back to your inner heel, and notice how stretching the inner heels back coincides with the deepening of your groins.
2. Your **front groins** (where the inner thighs meet the hips) **soften** and become hollow.
3. The inner edges of your **sitting bones** move back and apart, increasing the inward arch of your lower back. This inward arch comes from the sacrum tipping forward, which influences the curve in the lumbar spine (lower back) to increase.
4. The top of your **sacrum** tips forward (into the body).
5. Your **tailbone** moves away from the pubic bone, moving back as your lower back move inward at the top of the sacrum.
6. The **pelvic floor** opens and expands from this movement of the sitbones and tailbone.
7. The ‘points’ or front tips of your **hipbones** wrap forward, broadening the pelvis at the sacral (SI) joint. As your inner thighs press away from the midline (‘Thighs Apart’), the hipbones also expand outward, so that the front and back of your pelvis expand symmetrically.



The basic points encompassed by the Inner Spiral are not unfamiliar to most yoga students, since many teachers teach them, with some variation in the language. Simply put, the most common points are:



- the groins deepen
- an arch in the lower back (often called ‘Dog Tilt’) is created from the sacrum tipping forward
- the sitbones move back and apart
- the hipbones (or ‘hip points’ – the front tips of the hipbones) wrap forward toward the front body.

The *advantage* of conceiving these points in terms of the Inner Spiral is that all of the actions – and more – are united in a single integrated experience as if on a single thread or ‘*sutra*,’ from the feet all the way up to the hips and lower back. The end result is fully integrated action in the pose, and a feel for the action as a whole.

# Outer Spiral

The main function of the Spirals is to create a positioning of the bones relative to the joints in a way that refines alignment, bringing about the best balance between stability in the joints, range of motion and extension. The art of working with the Spirals is to find that balance through a process of fine-tuning the play between the Spirals. Both Spirals provide refinements of alignment in dynamic opposition; the balance between the two provides a precise fine-tuning of alignment that sets the stage for Organic Expansion.

The Outer Spiral has a lengthening or extending effect on the sacrum as the tailbone draws down and forward toward the pubic bone; it also lifts and broadens the hip points at the front of the body, balancing the action of the Inner Spiral that ‘wraps’ the hip bones forward. When it comes to the hip bones, the result of the balance achieved between the two spirals is to expand the pelvic girdle on all sides in a way that provides both stability and freedom (i.e. optimal range of motion with minimum compression). What follows the Outer spiral is **organic extension**, in which we send energy *through* the joints without locking them.

At the center of the actions of the Outer Spiral is the **tailbone**, which draws ‘down’ (away from the waistline) and ‘forward’ (toward the pubic bone), ‘scooping’ the tailbone in a way that brings tone to your pelvic floor and lower belly.

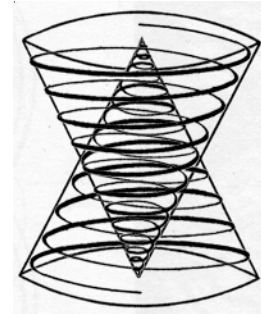
## In Simple Terms, the Outer Spiral is this:

While maintaining the Inner Spiral, firm the tops of your buttocks and draw the muscles down, ‘scooping’ your tailbone down and forward while drawing your lower belly in and up to lift and extend your spine. The tops of your thighs and knees will ‘spiral’ outward as your hip points lift and broaden at the front.

## Ways to Experience the Outer Spiral:

As with the Inner Spiral, this can be practiced in Tadasana with a block between your upper inner thighs. Begin with the Inner Spiral; then, *keeping* your inner thighs back and apart as much as possible [Inner Spiral], ‘**scoop**’ your tailbone down and forward while drawing your lower belly in and up toward your navel. Feel how Organic Energy moves powerfully from the **Focal Point** in the core of your pelvis down through your leg bones (at the back body), rooting you firmly into the earth; at the same time your spine lengthens freely upward (at the front body). *Too much* of these actions will press the lower belly inward, hardening it, while pushing the groins forward. The Outer Spiral is meant to create a lift and extension, without creating hardness, tension, or erasing the natural curve of the spine.

Another way of saying this is that (thanks to the actions of the Inner Spiral) the ‘scooping’ of the tailbone with the Outer Spiral **should not** result in ‘**tucking the pelvis**’ or ‘**tucking the tailbone**.’ The whole language of ‘tucking’ is an older way of speaking that, while it was meant to communicate extension, has the practical effect of creating a gripping in the hips and pelvis that works against that extension.



**Initiating the Outer Spiral**  
The Tailbone ‘scoops’ down and forward, lengthening away from the waistline

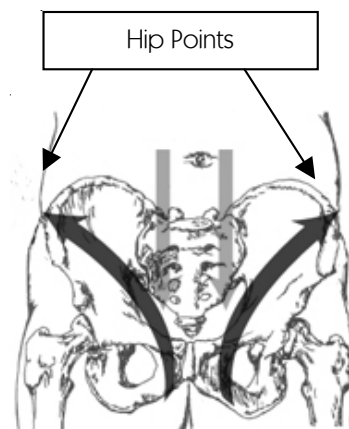


When we **‘tuck’** the pelvis or tailbone (in the way that you ‘tuck’ the sheets under the mattress on a bed) the sitbones narrow and your groins push forward, while the **pelvis as a whole tips back**, removing the natural curve of the spine. When the pelvis ‘tucks,’ there is not the same grounding action through your legs as in the Outer Spiral; moreover, ‘tucking’ locks your sacrum because the lower belly hardens and presses in, *without* creating any supporting lift and upward extension through your spine.

If instead of ‘tucking,’ you maintain a **balance between Inner Spiral and Outer Spiral**, you’ll be able to maintain freedom of movement in your hips and pelvis and extension of the spine with its natural curves intact.

### Some characteristics of the Outer Spiral to notice:

- As you **scoop your tailbone** down (away from your waistline) and forward, your (upper) **outer thighs and knees turn outward**. This creates a spiraling effect down to the feet, strongly grounding you organically through your legs. When initiated from the Focal Point with the action of the tailbone, the overall effect is quite different from simply rotating your thighs outward.
  - This is the action that truly ‘opens’ the hips; the Inner Spiral keeps the thighbones deep in the hip sockets, maximizing their range of motion, while the actions of the Outer Spiral open the hips by turning the thighs out without jamming the head of the bone against the front edge of the socket.
- Your **buttock muscles** draw down from your waistline toward your sitting bones. Note that the *bottoms and outer flanks* of your buttock muscles are *not* meant to grip or harden (Gluteus Maximus); rather, the **upper** part of the muscles firm and lengthen downward (Gluteus Medius).
- Your **sacrum** flows downward toward your tailbone and the top of your sacrum tips back, slightly decreasing the inward arch of your lower back, while creating a lift at the front of the spine. A subtle division of extension takes place here at the place where the tailbone meets the sacrum; there is a downward flow of energy in the sacrum from the tailbone down, while above the tailbone there is an energetic lift from the support that comes at the front of the spine from the toning and lift of the lower belly.
- The **sides of your hips** firm back in toward the core, and the **front tips of your hipbones** (‘hip points’) lift and broaden as the hipbones themselves wrap back and around toward your tailbone.
- The **connection between your heels and the spiraling action of your thighs**: as your thighs and the tops of your knees turn out with the outer spiral, your **outer heels press strongly down and in toward the midline**.
- If the ‘scooping’ of the tailbone is **overdone**, your **front groins** (where the inner thighs meet the hips) will tend to harden and push forward, pressing your thighbones forward in the hip joints, tightening your hip flexors. The toning and lift of the lower belly creates a lift at the core of the pelvis that ensures that the lengthening of the tailbone does not harden the groins. Moreover, a good Inner Spiral also counters this tendency by keeping the groins deep and the thighbones back in the hip joints. When the groins can’t poke forward, the energy generated from the Focal Point by the action of the tailbone is further **directed upward through the core of the body**.
- From the action of your tailbone, the outer edges of your **sitting bones** also tend to move toward each other and forward. This happens if the outer buttock muscles — Gluteus Maximus in particular — are overused





when firming in at the hips, since this overuse tends to overpower the Inner Spiral at the inner thighs. This can jam the hipbones together at the sacrum and tighten the lower back. Again, keep your inner thighs firm and pressing apart, as well as your sitbones moving back and apart with the Inner Spiral. This tempers the overuse of the buttock muscles, and maintains freedom in your lower back.

8. The **pelvic floor** tones and lifts. When properly balanced with the opening and leveling of the pelvic floor created by the Inner Spiral, the action of the tailbone in the Outer Spiral brings about a toning and energetic ‘lift’ of the pelvic floor, which is the essence of **Mulabandha**.

### **Balancing Inner and Outer Spiral**

Inner Spiral and Outer Spiral are meant to balance each other in every pose. In most cases, the buttock muscles are stronger than the action of the inner thighs, and so the buttock muscle – particularly at the sides and bottom – tends to compress the hipbones inward against the sacrum, locking and immobilizing the sacrum and lower back. When this happens, the Outer Spiral is overriding the Inner Spiral. In hatha yoga poses, this leads to strain, muscle pulls and problems in the lower back (particularly in Forward Bends) as well contributing to ‘pulls’ in the groins (particularly in ‘hip openers’ – e.g. Baddhakonasana). The **balance** between the two spirals creates a genuine opening without injury. It does so by:

- protecting your inner thighs by keeping the groins deep, and
- protecting your lower back by keeping the sacrum tipped forward into the body, so that it can move more freely and in harmony with the spine, as well as find support from the lower belly drawing in and up in conjunction with the scooping of the tailbone.

### **A General Rule for Inner and Outer Spiral**

As a **general rule** for asanas,

1. The leg that is toward the **back** body (such as the ‘back leg’ in a standing pose) needs **more Inner Spiral** (since the thighbone already tends to turn out);
2. The leg that is extended in **front** of the body needs more Outer Spiral (since the thighbone already tends to turn inward).

**Each** of the two legs, of course, needs **both** Spirals; the point is that one of the Spirals needs to be more consciously emphasized because in that particular pose, the leg naturally (and unconsciously) tends to rotate in the other direction. The end result of emphasizing the opposing Spiral (while also more consciously practicing the first) is that the two Spirals are brought into **balance**, taking the tops of the thighbones back in the joint – both inner and outer thighs – while aligning the ankles and knees.

# Organic Energy

## THE ENERGY OF EXTENSION

Organic Energy is an extension of a deeper, more intrinsic energy radiating outward through the core lines of the body, and from those lines, shining out in every direction. In the case of the lower body, Organic Energy extends out from the Focal Point through the core lines of the legs – through the bones – to the heels and out through the toes. This grounds you through your legs as you extend through them, and creates space in the joints of the hips, knees and ankles. Moreover, Organic Energy concentrically expands the muscles outward from the core lines, balancing its inherent softness and freedom with the hugging action of Muscular Energy.

The balance of Muscular and Organic Energies is at the heart of the power of the poses; this power is much more than simply the power of muscular contraction alone. Organic Energy moves from the firmness and stability of Muscular Energy to bring about extension and expansion that has the feeling of lightness and freedom joined with strength.

This quality of action is what places the practice of yoga in a very different realm than exercises or calisthenics designed to stretch and strengthen muscles. Yoga reaches a deeper level of experience and inner feeling. With Muscular Energy comes a healthy sense of self, of power and potential; this potential is fulfilled when joined with Organic Energy. Organic expansion has the self-transcendent quality of giving, of expanding and embracing what is beyond yourself, without losing your center. The two energies express the play of human love and growth: always beginning from a firm and secure experience of our own selfhood, we can reach out, expand and embrace our world in a way that transforms both.

# An Example of the Spirals in Action: Trikonasana

Stand in Mountain pose with your feet together. Step or jump your feet apart.

Turn your left foot in 30°, so that your outer left hip comes slightly forward [Inner Spiral]. Open your right foot and leg out 90°, turning your whole leg from the hip, so that your right kneecap is in line with the middle of your right foot [Outer Spiral]. Align your right heel with the center of your left arch.

## To deepen the two Spirals:

**Inner Spiral of the Back Leg:** Lift your left heel slightly and stretch it further back and down, pivoting on your big toe mound. Feel how this spirals your left thigh inward, taking your inner thigh back and your outer hip forward. Feel your sitting bones move back and apart, and your sacrum broaden. Ground through your heel to anchor your leg.

**Outer Spiral of the Front Leg:** Bend your right knee slightly and lift your toes, lifting the arches of your foot. Feel how, as you lift the inner arch of the foot with Muscular Energy, the inner knee firms and lifts too, bringing your kneecap more in line with the center of your foot as your outer hip moves back and in toward the midline of the body, bringing your right sitbone more in line with your right heel and knee.



Notice that as you increase the Outer Spiral of the front (right) leg, you naturally increase the Inner Spiral of the back (left) leg to accommodate the Outer Spiral of the front leg. Overall, the two Spirals create more space in your hips, allowing you to fold deeply into the pose as you take the pose.

As you inhale, firm your thighs, hugging the muscles to the bone and drawing energy up through your thighs into your lower belly and hips. Use that lift to lengthen upward through your spine.

Keeping both sides of your torso equally extended, fold at your right hip to take Trikonasana, extending your upper body out over your right leg. In the full pose, your right hand comes down to the floor to the outside of your foot; if this is too far to bend, bring your hand down to your shin, placing it there lightly, or to a block to the outside of your foot.

## Making the Spirals Work for You in the Pose

As mentioned earlier, a general principle is that the back leg usually needs to spiral in more, while the front leg usually needs to spiral out more.

Notice that the **Inner Spiral** of your **left** leg (i.e. your back leg) – your outer hip wrapping forward as your inner thigh spirals back – allows you to move deeply into the pose while keeping your upper body in line with your right leg. To increase the Inner Spiral, slide your heel further back, pivoting on your big toe mound; feel how this turns your hips slightly as your thigh spirals inward, giving you greater freedom to fold more deeply over your right leg.

By the same token, if you feel any compression in your right hip or pulling at the inside of your right knee, the **Outer Spiral** of your right leg (i.e. front leg) reduces the pulling at the back of your knee while opening your hip. To spiral the thigh out, bend your right knee slightly, draw Muscular Energy from your inner knee toward your outer hip and spiral your **right** thigh **out**, opening it out laterally until the center of your heel, knee and right sitbone are in line with each other. Then re-extend your leg. (These actions in Trikonasana will be further

explained in the section ‘Refining the Spirals: Working from your Foundation’ and again in the sections later in this book, ‘Shin Loop Revisited’ and ‘Thigh Loop Revisited’)

**Completing the Outer Spiral:** maintaining the Inner Spiral – particularly of your left leg – firm at the core of your pelvis as you lengthen through your tailbone; firm the tops of your buttocks and lengthen from your waistline toward your sitbones, scooping your tailbone down and in. Your ‘Hip Points’ will lift and broaden as you extend down through your outer heels, ‘spiraling’ your thighs out, as your spine unfurls and extends in the pose.

**Organic Extension:** As you scoop your tailbone to spiral energy out and down through your legs into the earth, feel how this action grounds you firmly through your legs to your heels. This gives you the freedom to turn your chest as you lengthen through your spine to the crown of your head.

Square your shoulders so that your bottom arm extends straight down. Draw your top shoulder back, opening your heart, and extend your arm upward, aligning your top arm with the bottom arm. Notice that the two spirals leave your hips turned at a slight angle; as you firm at your core, you need to bring a slight twist into your spine to open your upper body fully in the pose, bringing your left shoulder back and in line with your bottom (right) arm.

Look directly forward and draw your shoulders back, firming your shoulder blades onto your back to lift and open your heart. Keeping the back of your neck long and extended, turn your head to look up toward your hand. Extend from your heart through both arms evenly.

### **On whether the hips should be ‘square to the front’ or in the same plane in lateral standing poses:**

The ‘hip opening’ in poses such as Triangle, Warrior II, Half Moon and so on, is often conceived in terms of opening the back-leg hip by externally rotating the leg to take the hip back in line with the front-leg hip, as if pinning it back against a wall. But this, if not anatomically impossible, is at least not very good or beneficial body mechanics. To attempt to open the hips in a lateral standing pose by bringing both hips into the same plane has the effect of jamming the sacral (SI) joint and hip joints, not to mention its detrimental effect on the iliacus and psoas muscles, and tendency to tighten and ‘pull’ the inner groin of the back leg.

Instead, the **Inner Spiral** prepares the way for a genuine opening by wrapping the hipbone forward toward the front body **as** the inner thigh spirals inward toward the back body. Through Muscular Energy, this joins the action of the thigh with the movement of the hipbone, so that with the expansion of the inner thighs away from the midline comes also the balanced expansion of the pelvis. Thus the true ‘opening’ or expansion comes with refined alignment; the actions of the Inner Spiral of the back leg aligns the hips in a way that better suits their structure, and with that better alignment, expansion and extension in the pose happens in a more balanced way.

- And so, with the Inner Spiral, your back leg hip will *not* be in the same plane as your front leg; your hips will be slightly turned; it’s be a slight twist in your spine that your upper body faces forward.
- *Because* of this orientation of the hips, in which the hips are turned at a slight angle from the Inner Spiral of the back leg, you’ll be able to maintain the proper alignment of your *front* leg, keeping your heel, knee and sitbone moving in the same line [**Outer Spiral**].

The full ‘*opening*’ of the hips as well as extension through your legs and spine comes finally with the **Outer Spiral**, which follows upon the Inner Spiral.



## Opening the Hips in Standing Poses with the Outer Spiral:

By the practice of the two Spirals, the hips ‘open’ in the Standing Poses *not* by pinning the hip back, nor does the opening come by rotating the thigh outward.

Rather, scooping the tailbone and drawing the lower belly in and up toward the navel to initiate the Outer Spiral creates a lift and broadening at the inner surfaces of the wings of the hipbones. This is the opening of the hips/pelvis itself, that balances firmness and integrity with **expansion and extension at back and front body through the balancing of Inner and Outer Spiral**.

- **The hips do ‘open:’** the hipbones lift and broaden at the front of the pelvis, rather than the outer hip simply opening or pulling back. The result is extension through the legs and spine, while maintaining your freedom of movement in the pelvis.
- **The thighs do turn out:** yet this is *not* the *cause* of the opening of the hips, but rather the effect of an opening that takes place along the thread of the Outer Spiral. When combined with the lift and broadening of the hipbones, this creates a lengthening or extension along the core lines of the body.

The **Inner Spiral** brings a spiraling expansion of the pelvis, resulting in greater mobility for the sacrum, tailbone and the spine as a whole. It takes your thighbones more deeply into the hip sockets, providing you the opportunity to ‘open’ your hips without jamming your hip joints or sacrum. The **Outer Spiral** brings a spiraling extension of the spine from the action of the tailbone, while the thigh is free to spiral outward from the inner knee to the outer hip, ‘opening’ the hip. In the end, the opening of the hips is the result of the **balanced action** of the two Spirals.

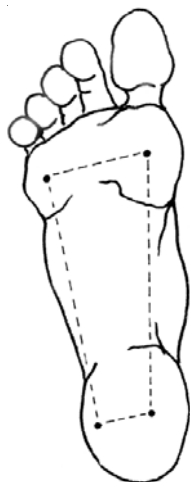




# THE FOUR CORNERS: YOUR FOUNDATION

We learn the Spirals of the lower body first through the action of the thighs, since that is the easiest to practice. Yet the full experience of the spirals comes when we practice them with an awareness of our **foundation** – the **feet** – fully integrating the actions of the lower body with the actions by which we establish our foundation.

**The Foundation** in any pose is that part of the body that is in contact with the earth. Your foundation always has **four corners** and those four corners should be equally rooted in the earth. Focusing on your foundation brings qualities of stability, security, and trust to your pose; you feel your own strength solidly rooted in a greater firmness and abundance.



The square is thus the symbol for your foundation. In terms of yogic symbology, the square is the symbol for the 'Root' or Muladhara Chakra,<sup>12</sup> whose ruling element is earth, and whose positive quality is the feeling of solidity and security. This emotional significance of the square is even reflected in our language – one is 'foursquare,' or has his feet squarely on the ground – or is just plain 'square' (a 'square' is dependable, even if uninteresting).

The whole system of the chakras expresses the insight that the unfolding of our emotional and spiritual being must have a secure starting point, a foundation. Without a fundamental feeling of security none of the other heart qualities can fully unfold. The unfolding of the positive qualities of any or all of the higher chakras can be compromised, contracted or even perverted by a fundamental fear and insecurity that comes from the feeling of being ungrounded.

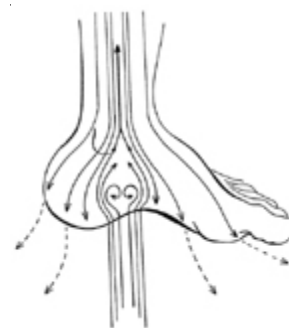
Thus one of the greatest services that hatha yoga can provide– from the very first class that you take – is to establish and confirm that sense of grounding in the poses, of being supported by and connected to the earth. That foundation of trust allows your heart to unfold through the practice.

We generally pay little attention to our foundation — particularly our feet, since they are usually the furthest thing from our mind — and we take the support they provide for granted. But the quality of your whole pose — physically, mentally and emotionally — flows from the foundation. It follows that a fundamental teaching in Anusara Yoga – which is shared by other traditions of hatha yoga – is that **all four corners should be equally rooted in the earth**. Muscular Energy draws up through each corner, and Organic Energy roots and expands equally through each corner. Each of the principles of Anusara Yoga, in fact, is present in and expressed equally through each corner.

While the whole idea of 'grounding' in this way seems simple, even disingenuous, the profound effect of working equally through each corner is to bring a quality of 'equal awareness' or *sama-sthithi* (a word often invoked to express the quality of *Tadasana* or the 'Mountain Pose') that is the essence of the meditative quality of hatha yoga poses. Moreover, the *actions* involved in this rooting can be quite refined, and in the end give greater lift in the arches and better alignment of the feet, knees and hips.

Your relationship to the earth through your foundation is a dynamic, living relationship. Through your foundation, you can both draw energy upward and extend energetically downward into the earth to draw energy in the way that the roots of a tree draw nourishment for growth.

When we engage **Muscular Energy** in the feet, the lift through the muscles draws upward from all four corners and on all sides of the legs, while at the same time, the most tangible lift is felt in the arches (especially since the four corners of the foot stay grounded on the earth).



<sup>12</sup> See the section on the Chakras.



When we extend **Organic Energy** through the feet, this lift of the arches is not lost, but is in fact enhanced, stabilized and strengthened by the extension through the bones — particularly by extension through your toes. Paradoxically, it *is* possible — and even necessary — to both draw energy up through the toes, heels and arches *and* extend outward and downward through these at the same time. If we only lift Muscularly, the muscles at the soles of the feet contract so much that they can cramp up in the arches; we must extend organically, stretching our heels — inner and outer — and toes away from each other to keep the muscles properly toned and our feet strong.

Moreover, organic extension into the earth has a ‘rebound’ effect; when we ground strongly into the earth, extending through the bones, the energy of this extension bounces back up through the bones to **support the spine in lengthening upward**. This is evident just in the fact that it’s much easier to ‘stand tall’ on a firm surface than on a mushy, cushioned surface. The **arches** of the feet have a key role in this rebounding of energy from our stance; the strength of their support allows us to ground all the more strongly, which in turn brings lightness and lift to our posture as well as cushioning our leg joints and spine.

For the arches to be strong, each ‘end’ of the arch must be equally grounded. Thus **the reigning principle is balance and equality; the principles of the legs work equally through all four corners of the feet, with no one principle predominating in any particular corner of the foot**. It’s important to remember this while looking more closely at the *experience* of working with your feet in the context of the principles.

### SETTING THE CORNERSTONES OF YOUR FOUNDATION

Setting your foundation begins with the placement of your feet, and both the placement and actions of your feet through the four corners are meant to support the central arches of your feet. This central arch has as its high point the center of your foot, which is at the cuboid bone. The line of this central arch runs from the center of your heel through the center of your ankle — at the cuboid bone — to your second toe. The shaded area in the illustrations at the right identify the cuboid bone and the center of your foot.

When setting your foundation in a yoga postures such as Tadasana or Uttanasana, in which you place your **feet parallel**, you determine what is ‘parallel’ by imagining a line running from the **center of your ankle to your second toe** on each foot; then place your feet so that **these two lines are parallel**.

When your feet are made parallel in this way, you will find that your **inner heels** (the inner edges of your heels) are placed slightly **wider** apart than the **mounds of your big toes**. This alignment of your feet supports a good **Inner Spiral** of your legs and pelvis, centering you in the pose.

If you were instead to bring your heels *together* when you stand in Tadasana, your foundation would work *against* the Inner Spiral of your legs. This stance is more likely to push your inner groins forward, compress your sacrum, and press the heads of your femurs forward. This especially limits your ability to fold forward into a forward bend such as Uttanasana, since your ability to take the tops of your thighbones back is limited by your foundation, and this in turn restricts your ability to tip your pelvis forward as you move into the forward bend. The end result is that you experience more of a pulling at your lower back than if you were to take your inner heels back and apart — i.e. bringing the feet to parallel — to support the Inner Spiral. This is an example of how the placement and use of your feet can profoundly affect your ability to practice the principles in your legs and pelvis.



*The lines through the center of the cuboid bone to the second toe identify the midline of the central arch; the arrows indicate the spread of the toes that create the transverse arch, which stabilizes the foot.*



Placement of the feet of course varies according to the pose. But in every case, both the alignment of the foot as it is placed in the pose, and the actions of the feet in grounding the four corners are meant to support the best lift and centering of the central arch of the foot — which in turn supports the best alignment of the legs and hips (and thus of the spine), giving the experience of being genuinely grounded in the support of the earth. This has tremendous importance for the health of your body as well as for your inner experience — and so it merits a very close look.

## A CLOSER LOOK AT THE CENTRAL ARCH

The central arch of your foot, which is supported by the four corners of your foundation, is actually the result of a combination of three distinct arches. One end of the central arch of the foot can be located pretty much in the center of your heel, though the steadiness of this foundation at the heel depends upon how you balance the grounding between the inner and outer heel. At the other end, the support of the central arch of the foot is spread between the big and little toe mounds.

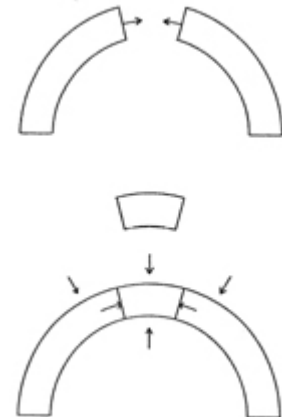


Three arches arise from this relationship between the heel and the toes, and these arches serve to support the main or central arch of the foot — particularly centering and supporting the high point of the arch at the cuboid bone:

1. the **inner arch**, which runs between the big toe mound and the inner heel;
2. the **transverse arch**, which distributes weight across the toe mounds; and
3. the **lateral arch**, which runs along the outer edge of your foot, from little toe mound to heel.

There are three arches to the feet that are organized around and contribute to forming this one central arch. The most familiar is the **inner arch**, which spans from big toe to inner heel; but there is also a **transverse arch** extending from the mound of the big toe to little toe, and a **lateral arch** extending from mound of the little toe to outer heel.

Each ‘arch’ is governed by a particular set of muscles. Because many of these muscles originate in your lower leg – as far up as your knee – working the arches of your feet via the four corners will profoundly affect not only the alignment of the bones of your foot and ankle, but of your knee as well.



The arches of your feet are constructed like the arch of a bridge. An arch provides strong support thanks to its two ends, which are like pillars that press toward each other by the force of gravity. This supports the central stones that make up the arch, and produces a structure that is capable of bearing a great deal of weight, distributing the burden throughout the arch. Because these pillars press toward each other with equal force, they counterbalance each other. Thus **each end** of the bridge must have a **firm and equal foundation** in the earth for the bridge to stand; if one end of the arch collapses, the bridge falls.

In the same way, the **relationship** between the corners of the foot as ends or supporting pillars of the arches will determine the strength of your arches as well as of your foundation. The four corners of the foot are not isolated from one another – they work in relationship to one another through a dynamic interplay of actions.

One way of thinking of such relationships between the supporting ‘pillars’ of your foot is to think as if you were wearing a **sandal**, with the one strap running from the mound of your **big toe to your outer heel**, and a second



strap extending from your **inner heel to your little toe**. The two opposing ‘corners’ of the foot defined by these ‘straps’ must ground equally, by first creating a **muscular lift** to the **arches**, and then **extending** and rooting equally and **organically** to each **corner**.

This is a dynamic relationship that takes some effort because of the mobile structure of the feet. Of all the bones in the body, about ¼ of them are located in the feet, allowing for freedom of movement so that your feet can conform to the terrain. The bones of the feet work like the links in a chain – they are relatively loose and malleable until you twist the chain; this twist ‘locks’ the chain, making it hard and strong.

The bones of the foot work in the same way. When walking or running, your foot first softens and conforms to the earth; yet when you propel yourself forward by ‘pushing off’ with your big toe in particular, a twist occurs that ‘locks’ the bones of your foot, giving it the strength to push off with firmness.

The **muscular action** that comes with ‘pushing off’ through the **mound of the big toe** as you ground through it is especially responsible for the ‘locking’ action of the bones that firms the central arch of the foot as the weight is dynamically shared between big toe mound and outer heel. And so in the case of walking, the relationship between your heel, which makes first contact when you take a step, and the mound of your big toe, where you finally push off through the big toe, is the key line of energy that determines the strength and proper functioning of your foot. It follows that in a hatha yoga pose, in which we want the foot to be firm and the arches lifting, the big toe mound will serve as the first and most pivotal point for the placement and actions of the foot.

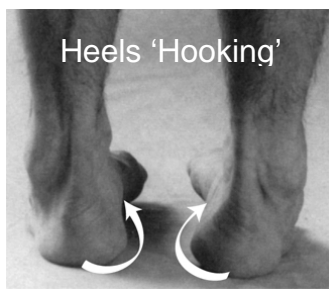
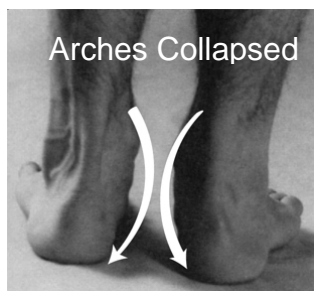
And so when you set your feet as your foundation in a hatha yoga pose, you

1. **Build** the **central arch** and balance the grounding action of your feet through these **two points** – the mound of your **big toe** and the bone at your **outer heel**.
2. **Stabilize** the foot by means of the **transverse arch** that arises as you ground your inner heel and spread and **extend** through your toes – your little toe in particular – grounding the mound of the little toe. This action further lifts or ‘domes’ the arch of the foot at its center.
3. Finally, the **lateral arch** along the outer edge of the foot naturally arises from this action at the little toe side of the foot as you draw muscular energy from your little toe back toward your outer heel, further grounding it, while extending out through the little toe organically.

In the next section we’ll be looking more closely at the reasoning behind these two points: that the **central arch** is **established** by balancing your weight between your **big toe mound and outer heel** (i.e. at the heel bone); and that the central arch is **stabilized** by grounding through your **inner heel and little toe** mound.

Arguably the most essential part of aligning the foot relative to the central arch is to establish a good balance to the grounding between the inner and outer heel; then there can be a stable relationship between the big toe mound and outer heel that supports the central arch. If there’s an imbalance in the grounding of your heel — particularly between your big toe mound and outer heel – your weight will fall either to the inner or to the outer edge of your foot, misaligning the foot relative to the central arch and straining the joints of the ankles.

*If your weight falls to the **big toe** side and your outer heel lifts, your **inner arch** collapses, leading to a host of problems, including knock-knees and hyperextension.*



*If you bring too much weight to your **outer heels** and your inner heels lift (this can happen especially in yoga poses if there is overemphasis on rotating your thighs out), then the **heels 'hook'** or '**sickle**' straining your outer ankles and contributing to 'bow legs.'*

This point is brought home in the illustration below, which demonstrates how the two most common imbalances or misalignments in the foot come about through too much weight being given to one or the other of these two corners:

## A CLOSER LOOK AT THE HEEL

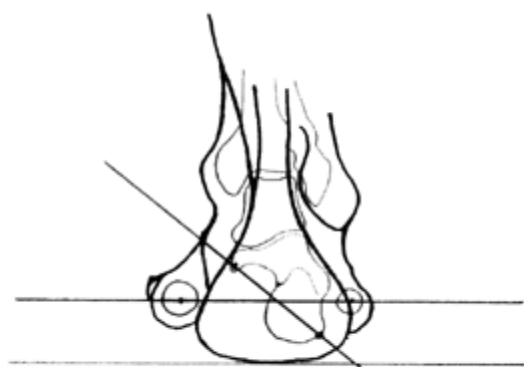
A closer look at how the heel of the foot is constructed reveals that while all four corners are meant to ground equally, the four corners of the feet are not created equal.

The **inner heel** of the foot is made of flesh, not bone, while the **outer heel** provides a solid connection to the earth through bone. Thus the **inner heel** does not provide the same kind of support to the foot and ankle as the outer heel. It follows that your experience of grounding through your inner heel will be different from that of grounding through your outer heel.

The arch at the inner edge of your foot is higher and especially needs the lift provided by Muscular Energy; moreover there must be a lift to the inner ankle bones — otherwise your foot can and all too often does collapse at the inner arch and heel, creating ‘**flat**’ feet. Because the joints of your legs — your ankles, knees and hips — depend a great deal upon the support of this inner arch if the bones of the legs are to be balanced and aligned as they rest on the talus bone in the ankle, such a collapse of the inner arch brings a host of problems in the ankles, knees and hips.

The primary muscles supporting the inner arch run between the big toe mound and inner heel; when you lift your toes and press through the mound of your big toe (as in ‘stepping on the gas’), you activate muscles that lift the inner arch. You can contract these muscles so strongly that the inner heel actually draws forward toward the big toe mound, shortening the foot and strongly lifting the instep of the foot. People with ‘flat’ feet are typically weak in these muscles, and the inner heel slides away from the big toe mound as the arch collapses.

The action of the muscles in the foot to lift the arch are actually completed and brought into full balance when you extend out through the toes — especially your big toe — while maintaining muscular engagement. When you draw back through your inner heel and anchor it, this is also an organic action that keeps the arch from cramping from too much muscular action between the big toe mound and inner heel.



*Because the heel bone is on the side of the outer heel, the lift of the inner heel and arch (rather than collapse) depends upon grounding the outer heel.*



*If the inner arch is not supported by the muscles — and/or if the inner ankle bone drops down, the foot collapses inward, turning the bones of the ankles and lower legs inward with this collapse.*



*The Muscular action that comes with lifting the toes and even pressing through the mound of the big toe activates muscles between the big toe and inner heel that creates a lift to the inner arch. Extending out through your toes — especially the big toe — completes and balances this muscular lift.*



In summary, the vital **first element** to lifting the inner arch and thus centering the foot is **Muscular Energy** — which in this case particularly involves the relationship between the **big toe mound and inner heel**.

### GROUNDING ACTION OF THE OUTER HEEL TO LIFT THE INNER ARCH

The lift of the inner arch also depends upon the *lift* of the bones at the inner heel (at the medial tubercle of the talus bone). The inner ankle must lift while the inner heel descends, or the foot faces collapse at the inner heel.

How does this lift take place? It's evident from the illustration that it is by **grounding through the outer heel** (i.e. extending downward through the bone) that the inner heel can both ground and lift at the same time, with proper balanced action.

Thus while the Muscular lift of the **inner arch** is established primarily by the muscles between the inner heel and big toe mound, and is assisted by spreading and extending through your toes, the central arch is firmly established when you balance your weight between your big toe mound and outer heel, while keeping your inner heel grounded or descending. Once your weight is centered in your heel by this balancing act between inner heel and outer heel, the actions of your toes can fine-tune the other two arches — the transverse and lateral arches.



*The inner heel needs to both ground or descend and maintain a lift to keep the weight balanced at the center of the heel. This is achieved by grounding through the outer heel as well, and doing so in direct relationship with the inner heel.*

## WORKING WITH YOUR FEET

From this we can identify some basic actions by which we set our foundation through the feet while building the arches by grounding through the four corners.

### Ground through the mound of your big toe.

When first engaging **Muscular Energy**, draw energy up through all four corners of your feet. Lifting your toes will help you to do this, and as you pay special attention to lifting on the little toe side of the foot to engage the peroneal muscles. This maintains the Muscular action of 'Shins In.'



### Ground your inner heel, lifting the inner arch.

Keep your big toe mound grounded and your inner ankle / inner arch lifting with Muscular Energy as you draw back and ground through your inner heel



— without allowing your inner arch to collapse. If you lose the lift of Muscular Energy, your ankle will turn in at the talus bone and your foot will flatten as the arch collapses.

**Begin to lift and spread your toes, extending through your little toe.**



As you extend out through your fourth and fifth (little) toe, this balancing of support between big and little toes establishes the **transverse arch** across the mounds of your toes.

**As you spread your toes, ground your outer heel, centering the heel by balancing the weight between the descent of your inner heel and the grounding at your outer heel. This centers your weight on the heel while lifting your inner ankle, thus centering your ankle as well.**



Maintain the dynamic relationship between your big toe mound and outer heel; this aligns the central arch of the foot by turning the ankle/cuboid bone out enough to bring it into alignment with the second toe. This completes the first ‘strap’ of the foot.

**Having placed all four corners of the foot, ground equally through all four corners by way of the relationship of the ‘straps.’**

Complete the second ‘strap’ by maintaining the grounding of your inner heel while extending and grounding through your little toe, activating the peroneal muscles of your outer shin (see next section). This is the stage at which you refine the energetic balance between all four corners of your foot, paying attention to the relationships between each of the four corners — inner and outer heel, big and little toe mounds, as well as the relationships between inner heel and little toe, and big toe and outer heel.



Draw back Muscularly through inner and outer heel, while extending organically and equally through all the toes, with the toes spreading, expanding and extending outward like rays of light. Pay special attention to the relationship between the grounding (and drawing back) of your inner heel and the

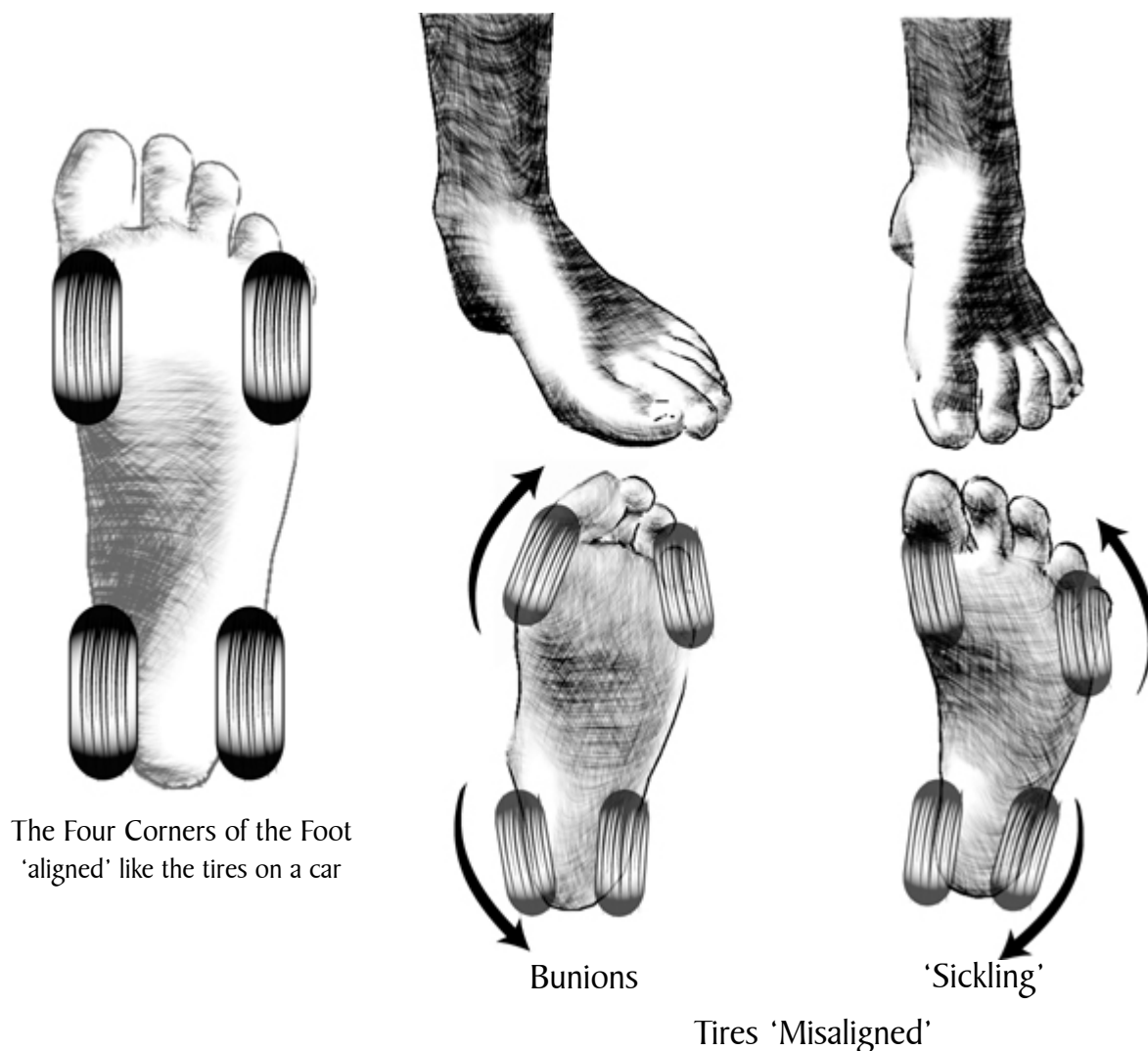


grounding of your little toe mound as you extend organically through your little toe. Feel how with this action your outer calf draws back, finalizing the alignment of your ankle and knee. Moreover, this action of the peroneal muscles helps you to draw your outer heel back; the balance between drawing your inner and outer heels back as you ground them prevents ‘sickling’ of the foot.

Think of the four corners of the foot as being like the four tires of a car; it’s clear that all four tires must be ‘grounded’ or weighted equally upon the road, just as we ground the four corners of the foot equally.

But of course there is more to it than that: each tire must be ‘balanced’ and ‘aligned’ individually and in relation to the others. Placing and grounding each corner equally is one thing; aligning each corner is another. Both are necessary and closely related. We know from cars that if one or more of the wheels is slightly off (the technical term is literally ‘toeing in’ or ‘toeing out’) the tires wear more quickly and there can even be damage to the frame. So it is with the feet, too, and bunions are a prime example of this.

Thus we’ve given particular attention to the *actions* at each corner of the foot as well as the relationships between the corners to ‘align’ them energetically. We can see this especially when treating matters such as bunions. Because many of the muscles governing the foot and its arches connect all the way up to the knee, there is a close relationship between the work in the foot and the principles of the lower body — those principles that refine the alignment of the legs and hips.



## A CLOSER LOOK AT 'BUNIONS'

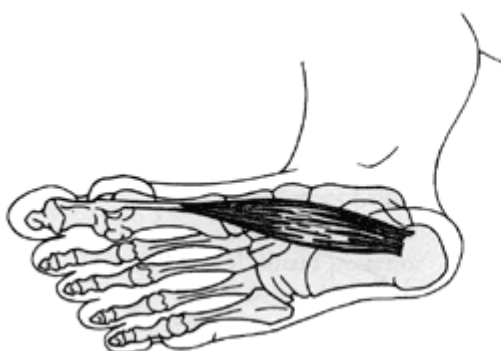
Stretching out through your little toe is an organic action that is complemented by an equal organic extension through the big toe. The result is to create the third arch – the transverse arch – of the foot across the mounds of the toes.

**Adductor hallucis** is a set of muscles at the sole of the foot that plays an important part in creating the transverse arch of the foot. But when these muscles are hypercontracted (i.e. tight because its action is not balanced by organic extension out through the toes) it is also responsible for 'bunions' because it pulls the big toe in toward the midline of the foot, encouraging the arch to collapse as well. Working with the four corners of the feet in asana (and by massaging your feet to release this tightness) can help to release these muscles and to strengthen the opposing muscle, abductor hallucis.

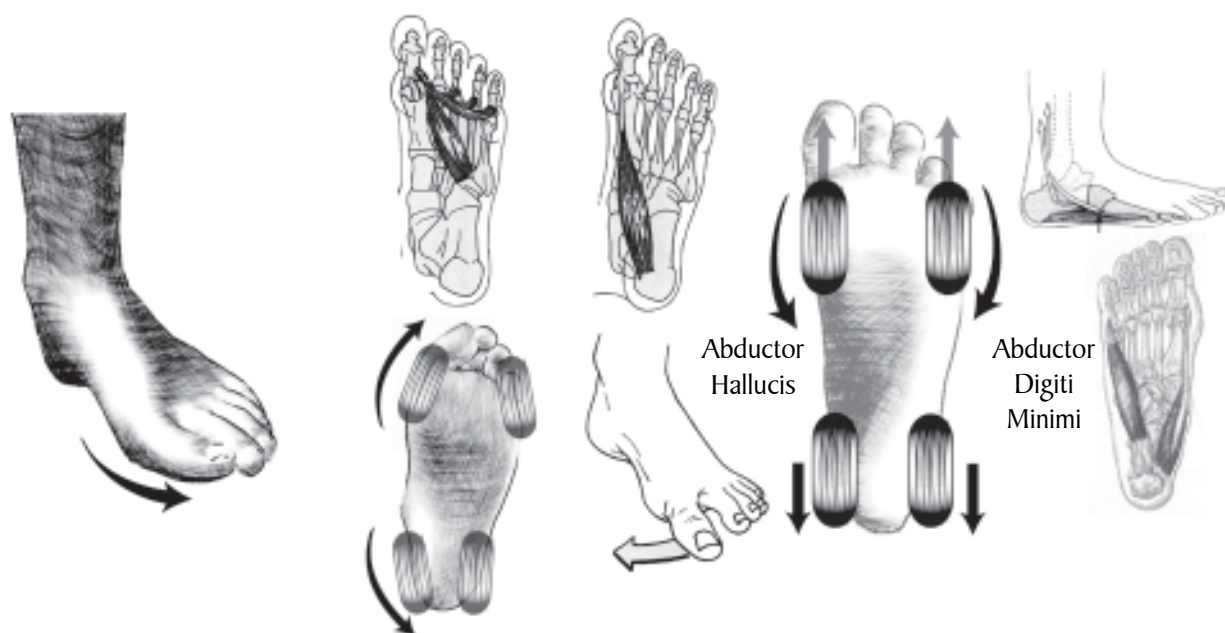


Tightness in these adductor muscles leads to Bunions

**Abductor Hallucis** is a powerful muscle that plays an essential role in keeping the big toe properly aligned during walking. When it is *underdeveloped* it can nevertheless be overpowered by the permanent adduction of the big toe by 'Adductor Hallucis' – the result, again, is 'bunions'. Abductor hallucis is activated when we **organically spread and extend** our toes – from big toe to little toe – and **through the big toe in particular**. Thus working with Organic extension through the toes after creating a Muscular lift to the arches can do a great deal to overcome the imbalances in the foot that lead to bunions.



The work of spreading and extending through the toes — through the big toe in particular — engages these abductor muscles, helping you to reverse the trend toward bunions.



We can place this discussion in the context of the grounding of the four corners of the feet, and see the specific actions for ‘aligning’ the tires that corrects the tendency toward bunions.

When you extend organically through your big toe while keeping Muscular Energy engaged to keep the arches lifted, you begin to work (among other things) Abductor Hallucis, which ‘pulls’ the big toe back into alignment. Because this muscle attaches at the inner heel, it’s important to keep the inner heel grounded and even drawing back — or else the muscle will pull the inner heel forward, excessively shortening the foot at the inner arch and causing cramping in the arch.

When you extend organically through your little toe while spreading your toes and keeping Muscular Energy engaged, Peroneus Brevis ‘pulls’ the little toe side of the foot back into alignment. *Along* with the action of Peroneus Brevis, another abductor muscle — Abductor Digiti Minimi — is activated, which attaches at the outer heel. *Because* this muscle attaches at the outer heel, it’s important to keep your outer heel grounded. In this case excessive engagement through working the little toe without grounding both inner and outer heel will pull the outer heel both back and in toward the midline of the body, causing ‘sickling’ of the foot, because of the action of Peroneus Brevis, which runs behind the ankle bone. Try extending your little toe out to the side (spreading the toes) and down, and see how the outer heel ‘hooks’ in toward the midline. This happens if there is not sufficient grounding of the heel — both inner and outer heel.

Thus the work that takes place in the foot — particularly when you extend out through the toes after placing and grounding the four corners of the foot — work to keep the four corners energetically ‘aligned’ with each other. You will find that the diagonal relationships between the corners — between inner heel and little toe, and big toe and outer heel — are especially important in achieving this balancing act, and that both sides of the heel must be firmly established and grounded in order to work well with the toes, refining the actions in the arches and aligning the toes themselves.



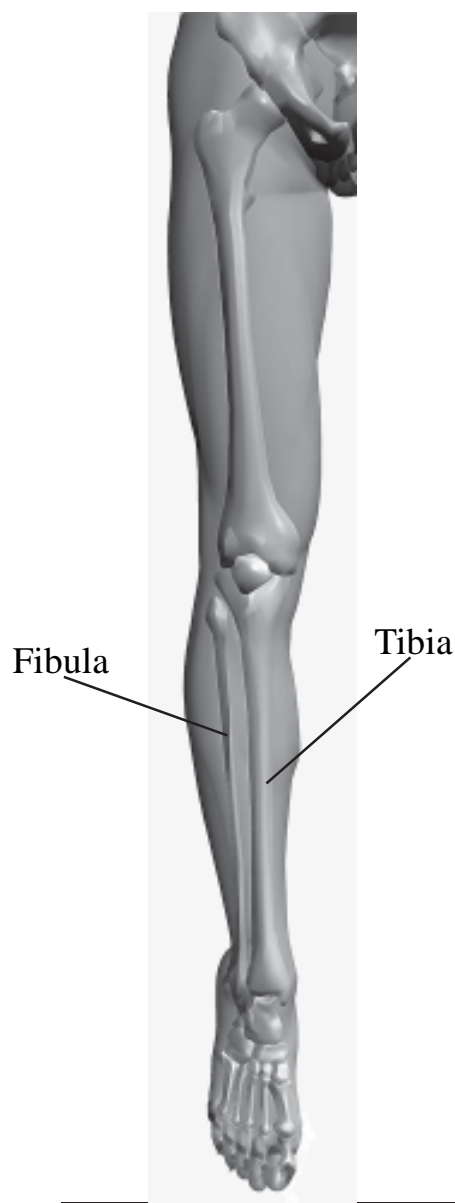
# REFINING THE SPIRALS

## REFINING YOUR WORK WITH ‘SHINS IN, THIGHS APART’

Now that we’ve paid particular attention to how we set the foundation with the four corners of the feet, we can better appreciate how this refines the actions of the legs and hips. Again, because many of the muscles of the lower legs have their insertion in the feet – particularly in the soles of the feet – the work we do with the feet affects alignment and action in the calves, shins and knees. The actions, which establish the foundation through the feet directly, affect the health of your knees in particular and are governed by the principles for the legs from the feet on upward.

The work we do through the **toes** particularly relates to the principle of ‘**Shins In – Thighs Apart,**’ which works to align the bones of the **lower leg** and firm the muscles on either side of the knee, ensuring that the knee tracks properly.

### THE ANKLES



The alignment of both the **ankles and knees** is determined by the relationship between the ‘**shinbones**’ of the lower leg – the **tibia** and **fibula**. When you engage Muscular Energy in the outer shins, you engage **two muscles** in particular that are attached to the **fibula** (outer shinbone) and influence the rotation of the shinbones relative to each other. The action of these muscles affects both the alignment of your ankles as well as how your knee tracks in the joint while being bent or extended, and is thus very important for maintaining the health of your knee, particularly when stress is put on the knee in poses such as hip openers.

In the ankles, the **talus** bone – the hinge joint of the ankle – is at the center of the ankle. The navicular bone – the crest of the arch at the middle of the foot – is just in front of it.

– **The orientation of the talus bone determines the orientation of the foot and the strength of the arches.**

– **The orientation of the shinbones determines the orientation of the talus bone, and vice versa.** Since in yoga poses we work from the feet up, the actions involved in setting our foundation will profoundly affect the orientation of the bones of the leg, particularly the bones of the lower leg or ‘shin.’ But by the same token, the actions of ‘Shins In, Thighs Out’ and of the Spirals will also affect the orientation of the bones of the feet, particularly of the talus bone. Hence both aspects — your foundation and the leg principles — are equally important. It’s no wonder that in the Sanskrit it’s sometimes ambiguous whether ‘pada’ refers to the foot or the leg — since they are so closely intertwined!

In the previous section we looked at how the actions of the feet — particularly grounding the outer heel in relation to the inner heel — affected the lift of the arches as well as how the foot is centered. Here we can look at the same issue from the other ‘end,’ namely from the perspective of how the knee is turned.

When your **knee turns inward** — as with hyperextension — the fibula turns the talus bone inward, making your inner arch collapse, and weight comes to the inner edge of the foot. This is all the more likely to happen when the muscles of your feet are not engaged

When you rotate your leg so that your **knee turns outward**, the fibula turns the talus bone outward, and your **arch lifts**. However, this action has to be supported from the ground up, by activating your feet while keeping your inner heel grounded — otherwise the weight falls too much to the outer edge of your foot.

As we’ve seen, if you keep your **big toe grounded and arches lifted (Muscular Energy)** and shift your weight to your **outer heel while keeping your inner heel descending**, your **arch is strengthened** because of the lift at the inner edge (medial tubercle) of the talus bone, ‘turning’ the talus bone out. This supports the alignment of your shinbones as well, allowing your knee to track properly as you bend and straighten it.

When it comes to the related actions of the leg, so far we have spoken in terms of ‘turning the knee’ in or out; yet it’s not just an external rotation that helps the knee or hip (it doesn’t), but the dynamic balance of ‘Shins In, Thighs Apart,’ which may give the *appearance* of an external rotation, but is something more refined.

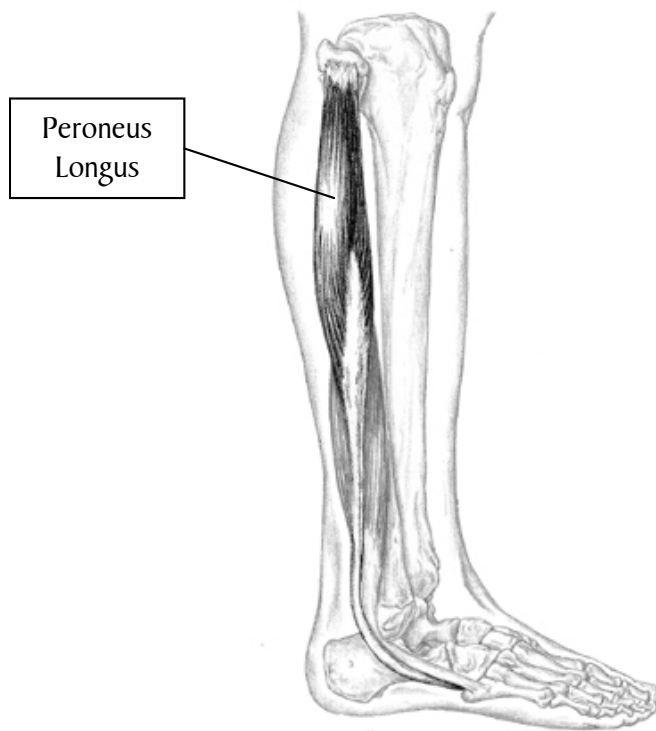
With regard to the feet, we have talked more in terms of the Muscular lift of the arches and the grounding of the heels. But the particular refinement that comes into play with the actions of ‘Shins In, Thighs Out’ depends especially upon the actions of the peroneal muscles running along the outer edges of the shins, which are most directly related to the actions of the toes — the big and little toes in particular. To this we turn in the next section.



## 'Shins In'

The muscles involved in firming the outer calves in – the **Peroneus Longus** and **Peroneus Brevis** – create **two distinct actions**. These actions follow after initially engaging Muscular Energy by lifting your toes to lift the arches.

### Peroneus Longus

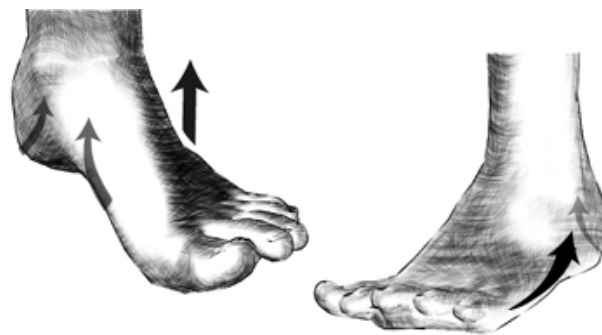
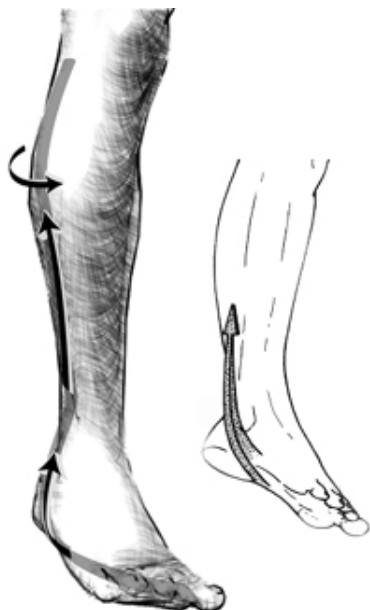


As you engage Muscular Energy by lifting your toes, keep the mound of your big toe grounded while lifting the little toe side of your foot. This activates **Peroneus Longus**, which firms the outer shin in up to the knee; notice that this action also rotates your outer calf – and fibula – forward toward the front body, turning your knee inward, especially as you keep the big toe grounded. This first action of engaging Peroneus Longus stabilizes the fibula while grounding the first corner of the foot.

It is important to ground through the big toe mound precisely because Peroneus Longus attaches to the base of the big toe. If you let the big toe lift, then other muscles such as Tibialis Anterior (at the front of the shin) are activated instead.

For the same reason, in poses in which the leg is not weight-bearing, such as in an inversion, we can firm the outer shin by 'stepping on the gas' — flexing the foot to firm the front of the shin (Tibialis Anterior) and then against that

resistance, pressing through the mound of the big toe while drawing Muscular Energy up on the little toe side of the foot toward the knee.



Pressing through the mound of the big toe ('stepping on the gas') firms the outer calf in, stabilizing the fibula; this action also influences the fibula to rotate forward, turning your knee – and ankle – in.

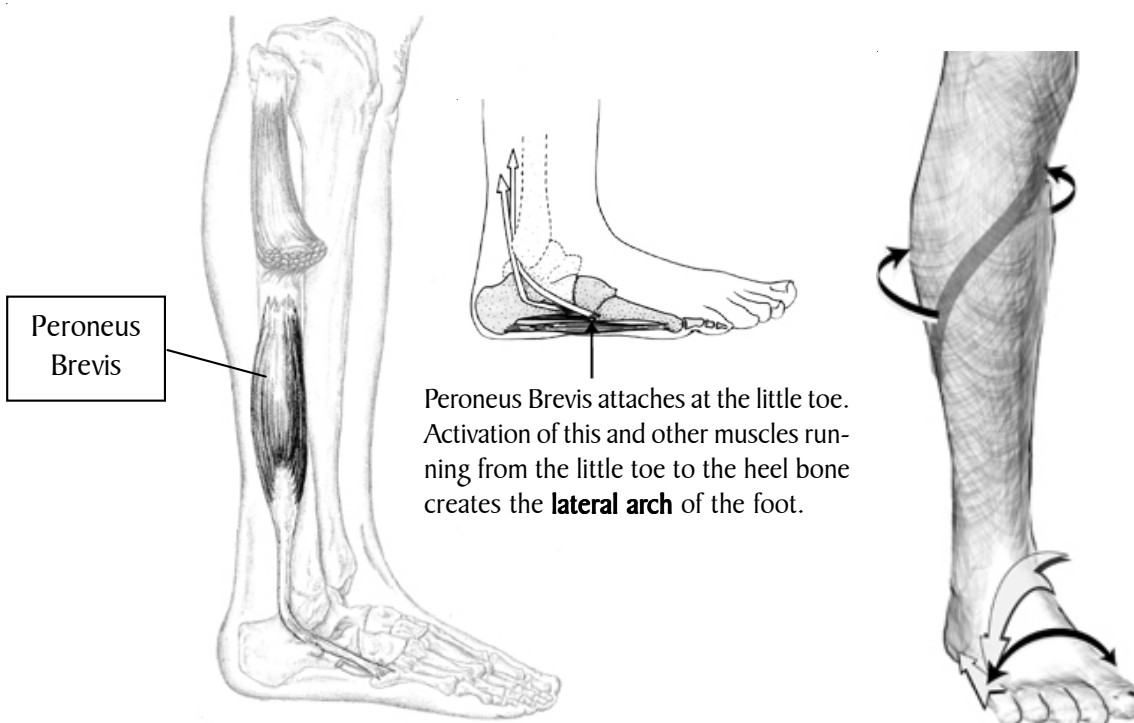
## Peroneus Brevis

Because Peroneus Longus influences the knee to turn in, its actions need to be balanced by the action of Peroneus Brevis. Peroneus Brevis attaches at the base of your little toe, and runs behind the ankle bone to attach at the middle of the fibula. When it is activated, it pulls the outer calf ‘back,’ balancing the action of Peroneus Longus. To activate Peroneus Brevis, keep the mound of your big toe anchored, then spread your toes and extend out through your little toe to bring the mound of your little toe down.

This lifting and spreading of your toes and the extension out through your little toe (*after* stepping on the gas to activate the calf and firm the outer calf in) creates the **transverse arch** and **draws your outer calf back** at the fibula, realigning your ankle and knee to further lift and support the central arch of the foot, while countering the tendency toward hyperextension. **This completes the action of ‘Shins In,’ balancing the action of the two peroneal muscles.** This also activates the outer edge of your foot — the muscles running between your little toe and outer heel, creating the **lateral arch, completing the three arches of your foot.**

**Both** the **grounding** of the **big toe mound** and **extension** through the **little toe** are necessary. **Both** Peroneus muscles must be engaged by working the toes – big toe and little toe, and all the toes in between.

1. The big toe mound initiates Muscular Energy, leading into the Inner Spiral while stabilizing the outer calf
2. Extending through the little toe draws the outer calf back and spirals the bones of the lower leg out, aligning the knee. **Notice that the effect of extending through the little toe while spreading the toes is quite different from simply pressing down through the little toe mound.**



## THIGHS APART

Working your toes as described above involves muscles that firm your outer calves in, aligning your ankles and shinbones while creating a force that **firms your lower legs in toward the midline** of your body as well.

Against this force your **inner thighs can press laterally outward**, creating space in your hips while balancing the muscles on either side of your knees.

**Between** the two actions of ‘Shins In’ and ‘Thighs Apart,’ the **upper inner thighs must move back with the Inner Spiral** as the inner thighs activate.

The actions of ‘Shins In, Thighs Apart’ can best be felt when you keep a slight bend to your knees – then it is easier to feel the action of the muscles of your outer calves and upper inner thighs without your knees turning or locking.



1. As you ground through your big toe and inner heel, lift the little toe side of your feet to **firm the outer calves in** toward the midline, creating a ‘racing stripe’ up the outer edge of your calf;

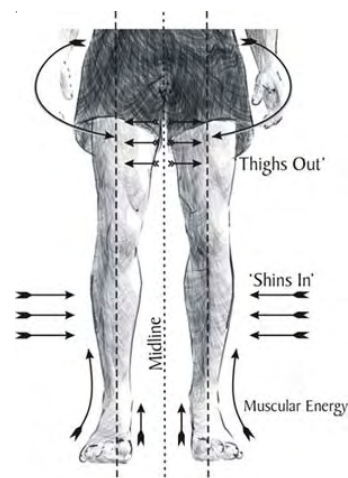
2. Take your **inner thighs back, increasing the arch in your lower back** and softening your hip creases; draw your inner heels back and slightly apart as you ground them, and notice how this action parallels the action of drawing your upper inner thighs back and apart.

3. From the firmness of your inner thighs, press your upper inner thighs and inner heels laterally apart until your knees are in line with the center of your ankles. With the action of the upper inner thighs, feel how your pelvis broadens at the sacrum, so that the top of your sacrum tips easily into your body. With the action of your inner heels expanding apart, feel how your inner arches lift further and your weight shifts to both the little toe side of your feet and your outer heels. The actual **movement** of the inner heels, pivoting on the big toe mounds, is very **small** – only enough to make the feet parallel (as we described earlier); and the movement of the inner heels is *not* the *cause* of the thighs expanding apart, but rather goes hand in hand with that action. But *energetically* the action of taking the inner heels back and apart strongly supports the lift of the inner arch, centering the foot. As you move your inner thighs back and apart, draw

your inner heels (at a place just below the ankle bone) back and apart to energize your arches.

Notice that during the process, ‘Shins In’ may have influenced your knees to turn inward (making you ‘knock-kneed’) due to the influence of Peroneus Longus. The complementary action of ‘Thighs Apart’ brings your knees and thighs back to parallel, particularly as you extend out through your little toes to activate Peroneus Brevis.

This correction gives the **appearance of an outward rotation** of the thighs, but is not really the same thing, for two reasons. First, the action of the little toes, activating Peroneus Brevis, influences the bones of the ankle and lower leg to turn out, stabilizing and aligning the knee from below. This is quite a different thing from turning the thighbone out. Second, the ankles, knees and hips are further aligned by a **lateral expansion of the inner thigh outward**, particularly from the upper inner thighs, just behind the thighbone. This too is quite a different thing from rotating the thighbone outward, particularly because this expansion has to be preceded by taking the inner thighs back, increasing the arch in your lower back. *Without* this inward spiraling of your thighs, your thighs *would* indeed turn or rotate out, and you would most likely feel an uncomfortable gripping in your outer hips with the action of ‘Thighs Apart.’ With the Muscular action of the inner thighs, the hip rotators (the muscles used to turn or rotate the thighs out) are to some extent neutralized and cannot grip; instead, the thighbones move ‘out’ laterally, expanding the pelvis uniformly, and centering the heads of the femurs in the joint.



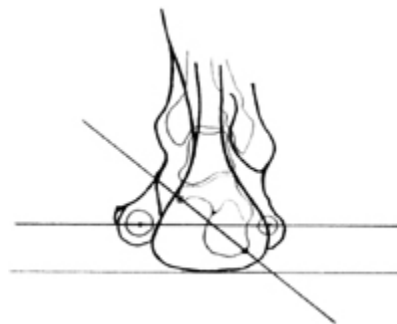


All of these actions are indeed followed by the Outer Spiral, in which the thighs **do** turn out, but by virtue of the lengthening that takes place, not by simply rotating the thighbone in its socket and gripping with the hip rotators and buttock muscles, which often pinches the sacrum. The important preliminary actions of ‘Shins In, Thighs Out’ and the Inner Spiral ensure that when you *do* initiate the Outer Spiral and your thighs turn out, they don’t do so in a way that jams your hips and sacrum.

## OF INNER HEELS, THIGHS AND SITBONES

### PERSONAL OBSERVATIONS

In my own experience, I find a clear relationship between what I do with my inner heels and what I experience in my inner thighs and sitbones. Just as the inner heels are in a very real sense ‘empty space’ (there is no bone there), the inner heels are the place in our foundation where we *create* space – or collapse and lose it.



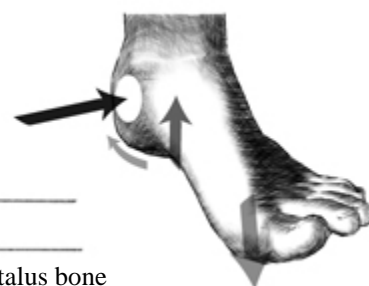
1. As we **draw the inner heels back, the inner edges of the sitbones move back** as well, as if there is a direct relationship between the bone of the heel and the sitbones (assuming that the knees are not locked or hyperextended). You can feel your inner thighs move back in a way that you do *not* feel if you draw your *outer* heels back.

For example, when sitting in Dandasana, if you turn your thighs so that your big toes come together, and you draw your inner heels down toward the floor and slightly apart (making the feet ‘parallel’), you feel the inner edges of your sitbones descend toward the floor and even draw apart. If you rotate your legs out so that your inner heels move up toward the ceiling and in toward each other, you also feel your sitbones do the same thing.



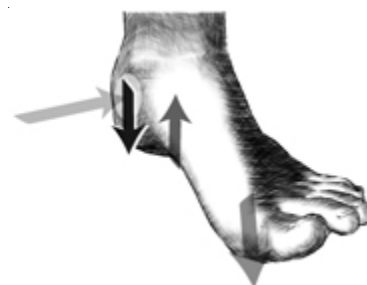
In general, when you stabilize the foot by grounding through the mound of your big toe and activate your inner arch, just as you activate your inner thighs, you find a strong connection between taking your inner heels back (toward the back body) and taking the inner edges of your sitbones back.

2. As we take the inner heels apart – away from the midline – the upper inner thighs broaden apart. The specific place from which you move at the inner heel is just below the anklebone<sup>13</sup>; the specific place from which you broaden the thighs apart at the inner thigh would be toward the back edge of the thigh, in the area of the adductors. As the inner heels lift and press apart – with the inner arch lifted and activated – so the inner thighs and sitbones broaden apart at the back with the action of the Inner Spiral.



<sup>13</sup> At the medial tubercle of the talus bone

3. As we emphasize the descent of the inner heels – without collapsing the arch or losing any of the other actions – the groins or inner thighs deepen. You can feel this especially in a bent knee standing pose such as Virabhadrasana II (Warrior); as you ground through your inner heel, your inner thigh becomes heavy, dropping toward the floor. There’s a subtle play at work between deepening the groins by grounding through the inner heel and broadening the inner thighs laterally by taking the inner heels and inner thighs apart.



## APPLICATION OF 'SHINS IN, THIGHS APART': TRIKONASANA

Take **Trikonasana** (Triangle Pose) to the right.

Misaligned



One of the most common misalignments of the front leg is that the kneecap is turned in the direction of the big toe – in other words, the thigh rotates in too much and collapses toward the midline. Also notice how your weight is distributed on the four corners of your feet; when misaligned in this way, the weight tends to fall to the inner edge of your foot and your arch collapses.

Properly Aligned



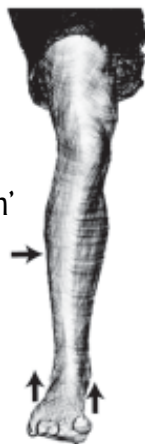
When **properly aligned**, your right knee should be lined up with the middle of your foot – second or third toe – and your heel, knee and right sitbone should all be in the same line or plane. Your weight should be distributed equally on all four

corners of your foot.

To correct or refine the **alignment of your right leg** – particularly if your right knee is hyperextending, or you feel 'stuck' in your right hip – do the following:

### 1. 'Shins In'

'Shins In'

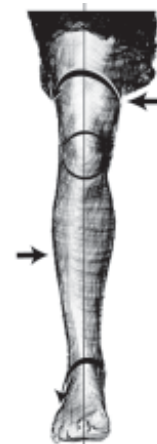


– **Bend** your right knee slightly. This 'unlocks' the knee, undoing any hyperextension and allows you to work more effectively with realigning your leg.

– Lift your toes – particularly the little toe side of the foot, while grounding through the mound of the big toe – to engage **Muscular Energy** and lift your arches; lift your inner arch as well, while keeping your inner heel grounded, so that Muscular Energy draws up through all four corners of your feet.

– This action begins to firm the outer calves in toward the midline, particularly if you 'step on the gas'

'Thighs Out'



**2. Inner Spiral:** draw your **inner heel** back and even slightly to the right as you ground your it: as you draw Muscular Energy up through your inner thigh in particular, spiral your upper inner thigh inward; take the inner thigh back (toward the back of the leg), deepening the groin and setting the thighbone more deeply in the socket. Notice that your grounding through your inner heel complements these actions, and that the Inner Spiral increases the inward arch to your lower back.

**3. 'Thighs Out'** – while keeping your outer calves firming straight in toward the midline, broaden your inner thighs out laterally, directly away from the midline. Feel how this shifts weight back out to the outer edge of your foot as you extend out through your little toe, creating the transverse arch across your toes, and grounding through your outer heel to align the central arch of your foot. In terms of the alignment of your leg, as your thigh opens to the right (moving from the upper inner thigh), your knee ends up aligned with the middle of your foot (i.e. second toe).

Notice that the effects of these actions in opening the hip are quite different from simply rotating the thigh externally (i.e. turning the thigh out).

Notice also that when you realign your front (right) leg in this way, your back (left) leg naturally spirals inward – your outer left hipbone turns forward, while your inner thigh spirals inward toward the midline, grounding through your heel. This makes space for the alignment of the front hip that takes place through these three actions.

- Straighten your leg, extending from the core of your pelvis through the bones of your legs, down through your heels. Ground through all four corners of your feet with this organic extension.

## PRASARITA PADOTTANASANA

### WIDE-LEGGED FORWARD BEND

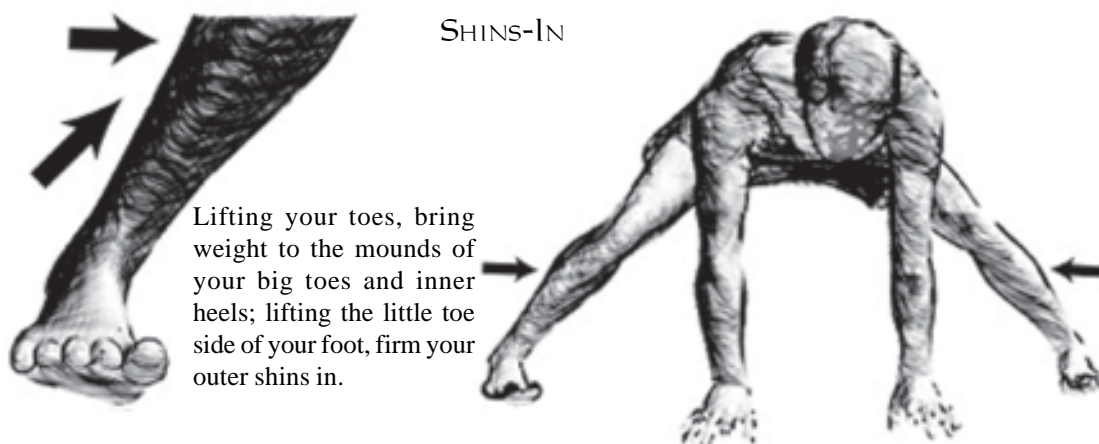
Take a wide stance. Turn your feet inward so that your inner heels are slightly wider apart than your big toes, and the outer edges of your feet are parallel to each other.

Firm your thighs so that your kneecaps lift, and turn your thighs so that the kneecaps face straight forward. Extend through the outer edges of your feet so that all four corners of your feet are evenly in contact with the floor.

Place your hands on your hips and draw your shoulders back. Inhale and lengthen upwards through your spine, lifting and opening your chest. As you exhale, bend forward at your hips, keeping your thighs firm. Bring your fingertips to the floor, keeping your hips in line with your feet.

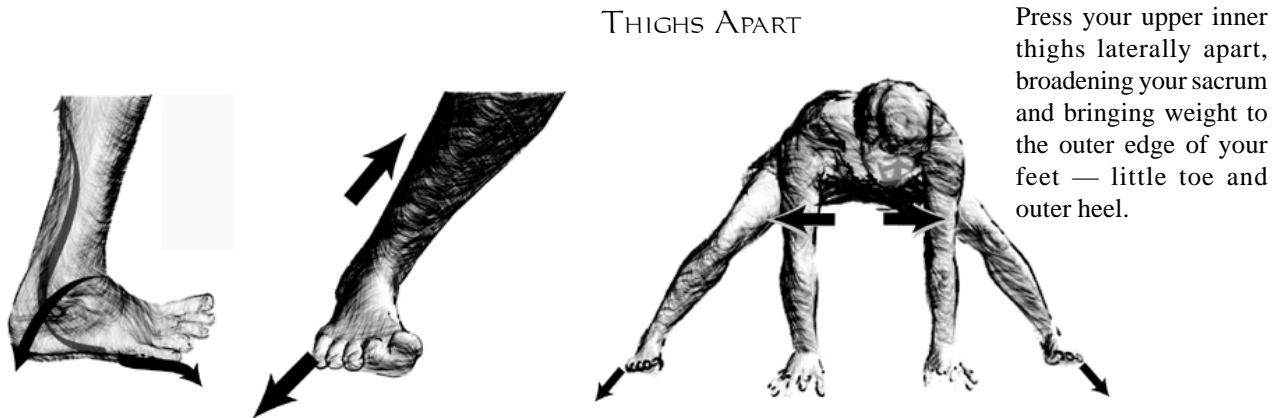
To work with the feet and legs, particularly to experience ‘Shins-In, Thighs-Apart’ try the following:

1. Bend your knees.
2. Lift your toes — and thus your arches — engaging Muscular Energy all the way up through your thighs. Firm your outer shins firm inward from lifting the little toe sides of your feet — you’ll find this brings more weight to the inner edge of your foot — big toe mound and inner heel.
3. Stretching back through your inner heels, draw your upper inner thighs back, taking your sitbones back, up and apart. This will arch your lower back inward by tipping your sacrum inward, making your back flat.





4. Keeping your knees bent and back flat, firm your inner thighs and press your inner thighs laterally apart; spread your toes and extend out through your little toes as you bring weight to your outer heels, grounding all four corners of your feet.



As you press your thighs apart, extend out through your little toes and bring weight to your outer heels; this will turn your ankle and shinbones out through the actions of the peroneal muscles, aligning your ankles and knees with the center of your foot. Feel how your outer shin draws back (rotates externally) with the firming action of extending through the little toe.

6. Firming and drawing energy up through your thighs, straighten your legs, keeping your knees facing straight forward. Drawing Muscular Energy up through your legs, lifting your arches and firming your calves as you extend out through your little toes will keep your knees from turning inward or hyperextending.

Notice that if you bring too much weight to your outer heels, your inner heels ‘hook’ inward and you begin to feel excessive strain to your outer ankles; to correct this, ground through your inner heels, and bring your outer heels down by pressing your inner thighs apart, rather than rolling onto the outer edges of your feet.

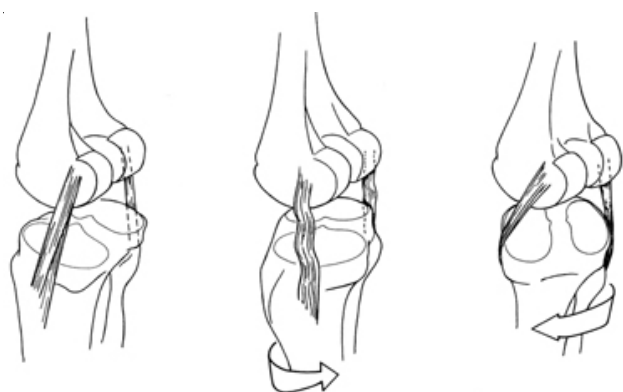
If you have too much weight to your inner heels, this can also contract your outer ankles, causing a sharp pinching. To correct this, balance the weight between the heels by working with ‘Shins-In, Thighs-Apart’ – mindful of grounding big toe mound and outer heel equally – rather than by turning your ankles excessively inward or outward.

7. To complete the pose, walk your hands back in line with your feet. With an exhalation, bend more deeply at your hips to bring the crown of your head toward the floor. Keep your shoulders broad and your shoulderblades flat on your back as you bend your elbows and descend. Bend your elbows straight back so that your arms remain parallel to each other. Breathe smoothly and evenly.

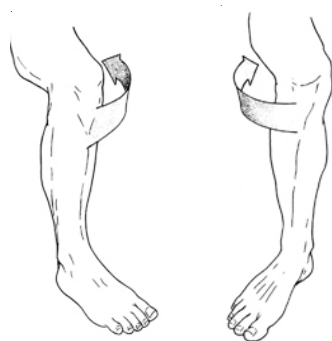
## TAKING CARE OF YOUR KNEES

Because of the influence of the calf (Gastrocnemius), hamstring and quadriceps muscles on your knees, it's important to stretch these muscles in a balanced way – which, as a matter of fact, most hatha yoga poses are designed to do. Imbalances in the flexibility and strength of these muscles exert pulling and tensions in your knees – as well as weakness or slackness in key places – that misalign them and leave them vulnerable to injury.

In particular there are collateral ligaments on either side of your knees that protect you knee joint by helping it to track properly. These are weakened by hyperextension of the knees, making the knees more vulnerable over time. Moreover, these become slack when you rotate your lower leg inward (medially – turning your foot and lower leg in toward the midline), and so the protection they offer is compromised in such actions. When you rotate your lower leg out (laterally – turning your foot and lower leg away from the midline) they become taut and resist that kind of twisting in the joint.

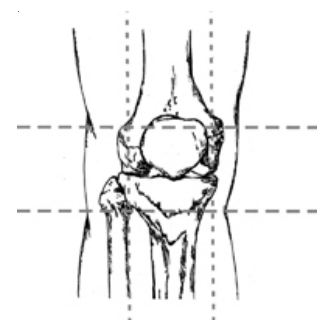
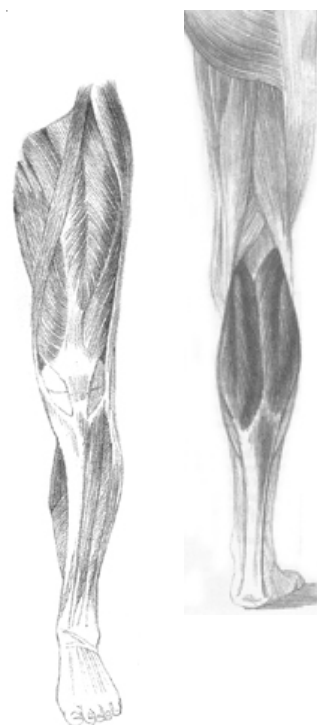


Medial Rotation: limited resistance is offered by the collaterals, and so your joint is at risk



Lateral Rotation: the collaterals tighten and resist, so your joint remains relatively safe

The moral is that while we should be careful to track our knees properly whenever bending and straightening them, we must be **especially careful** when our shins are influenced to rotate inward.



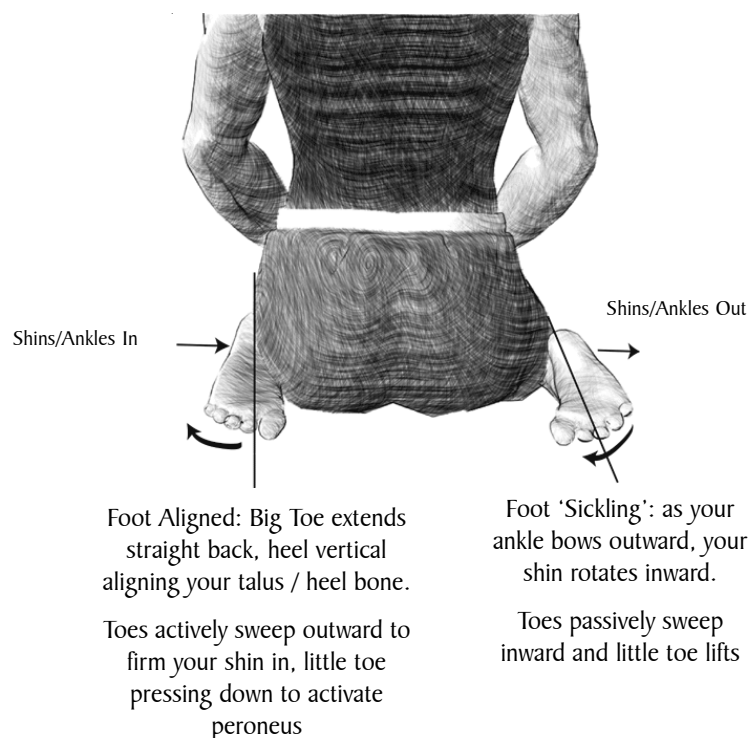
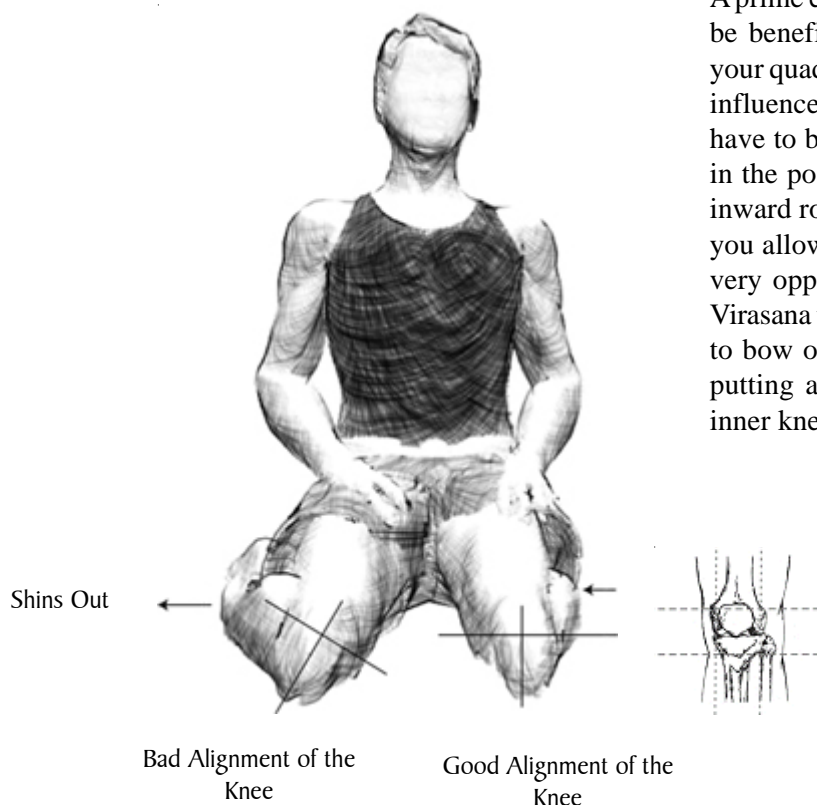
The Knee, when tracking properly, forms a kind of square shape when viewed from the front, with four corners to the knee

An example would be hip stretches, in which there is a tendency to grab and pull your toes toward you, rotating the shins inward. The work we do with the feet, ‘stepping on the gas’ to engage the muscles of the outer shin and extending out through the little toe (actions of ‘Shins In – Thighs Out’) while rotating the foot and shinbones *out* resists this medial (inward) rotation and so gives added protection to your knee joint. (Note that it is possible to rotate the shins out *too* hard.)

This principle also becomes important when doing ‘thigh stretches’ — poses or stretches in which you bend your knee to stretch your quadriceps, since the collaterals offer much less resistance when your knee is bent than when it is extended and your knees can be weakened or progressively injured by the kind of twisting that takes place as a result.

## VIRASANA

A prime example is the pose Virasana, which can be beneficial to your knees in that it stretches your quadriceps and other upper leg muscles that influence how your knee bends. However, you have to be careful of your alignment and action in the pose, since the pose strongly encourages inward rotation of your shins, particularly when you allow your feet to 'sickle.' The result is the very opposite of 'Shins In – Thighs Apart': in Virasana the tendency is for your shins and ankles to bow out, while your thighs collapse inward, putting a lot of pressure and twisting on your inner knee.



The remedy, of course, is mindful practice of **‘Shins In – Thighs Apart’** while paying attention to how you work your feet.

**In Virasana, the basic alignment of the feet relative to the shins is the following: the middle of your heel is in line with the second toe; the foot itself is in line with the shin, so that the foot is an extension of the shin.**

# 4

## PRINCIPLES APPLIED: THE LOOPS

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# THE LOOPS OF ANUSARA YOGA

## FREEDOM

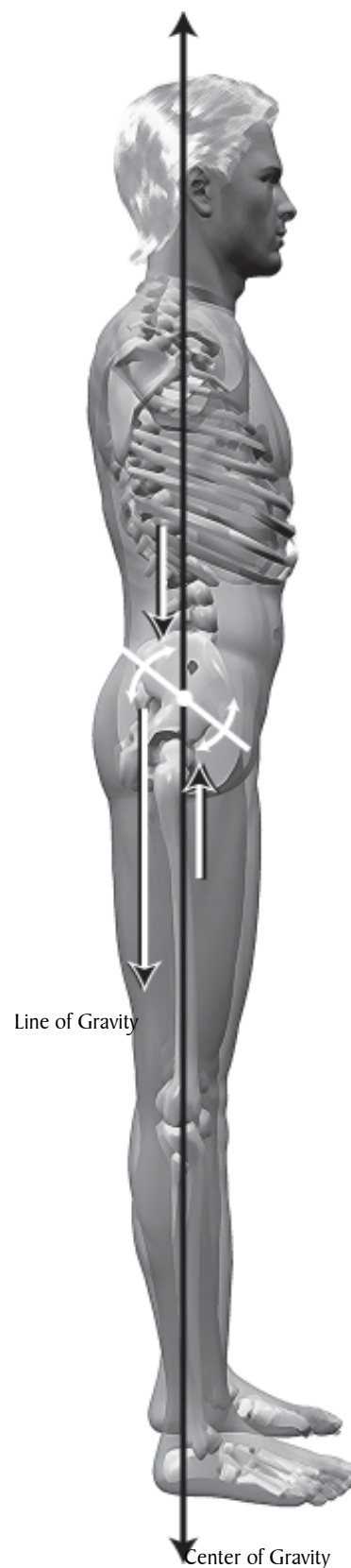
Our freedom of movement in the pelvis, particularly for distinctively human movements such as walking, dancing and etc., is largely due to the fact that the line of gravity establishing our foundation through our legs is distinct and even separate from the line of gravity running through the axis of the spine. The separation is thanks to the structure of the pelvis. The weight of the upper body through the axis of the spine as it rests on the sacrum is significantly 'behind' the axis of the legs. Thus the pelvis is free to tilt in various ways to support freedom of movement while maintaining extension of the spine throughout.

## GRAVITY

Yet that same freedom comes with a price, since it also leaves us free to be *out* of alignment. It takes firmness and tone in the thighs to keep the tops of the thighs in place (thigh loop), and firmness and tone in the lower belly to support the lumbar spine (pelvic loop) if the proper alignment is to be maintained. Otherwise, the force of gravity downward through the spine makes it all the more likely that we will either allow our hips – our center of gravity – to shift forward, or the pelvis to tilt excessively forward, to bring the weight of the spine directly over the line of gravity through the legs.

Initially, it would seem to take *less* effort to maintain an upright posture with this alignment than it does to maintain 'ideal' alignment – and most of us do unconsciously surrender to the pull of gravity toward this alignment. Yet the outcome involves a great deal more trouble. The adjustments and compensations that take place in the pelvis and spine to accommodate the shift lead to overuse of some muscles and abandonment of others. The end result is various forms of collapse, rigidity, stress upon the joints and overworking of particular muscles, even if it *feels* like less work overall to keep the body upright.

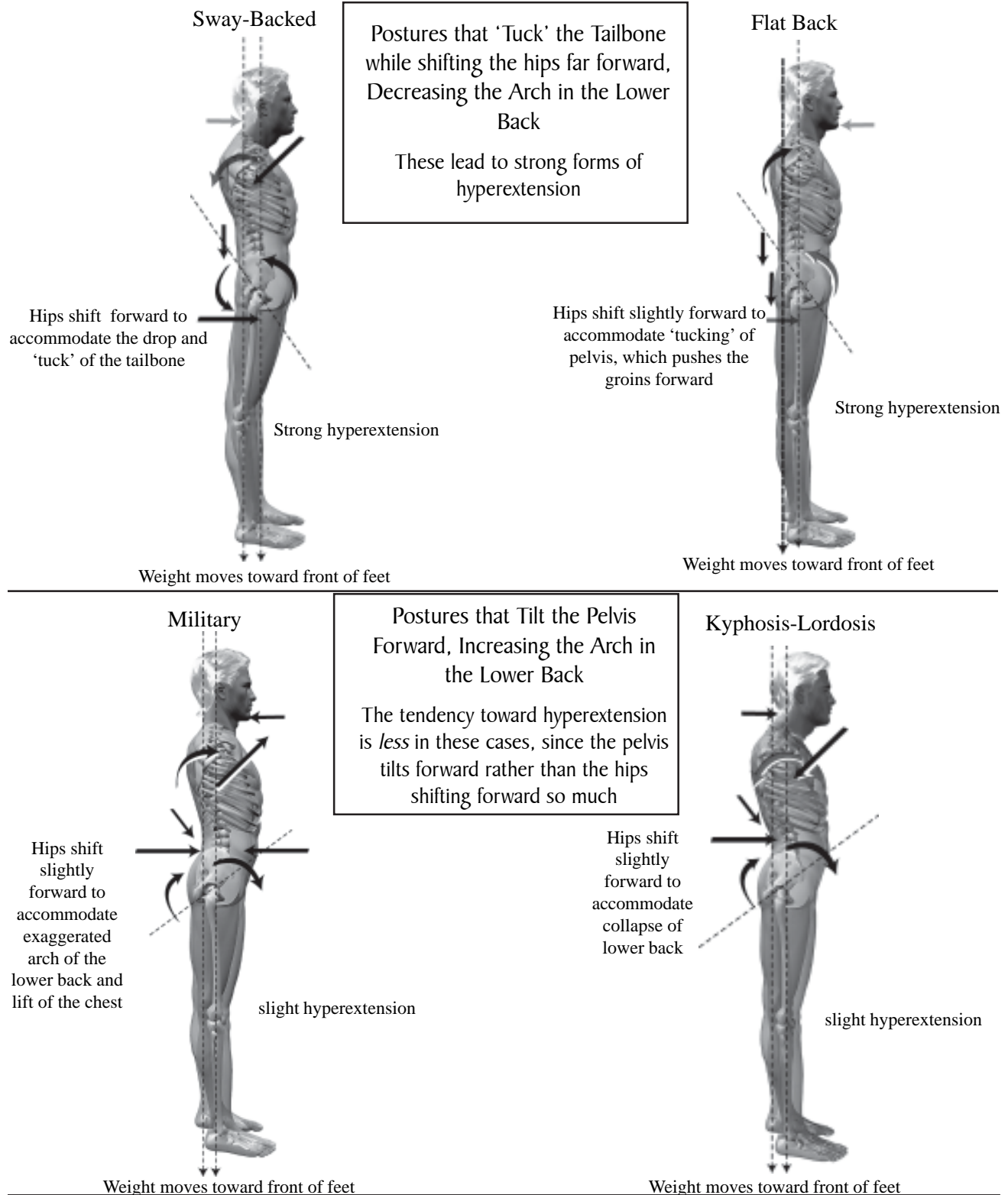
The body finds countless strategies for accommodating this shift, adjusting the curvature of the spine and alignment of the knees to bring the body into balance. The strategies are of four general types, which mix in various ways to provide countless variations. In every case, the strategies reduce balanced extension through the body and increase stress in the muscles and joints.



## THE LOOPS

The Loops offer a way to overcome these tendencies. Simply put, the Loops provide a description – and prescription – for how the muscles, when properly engaged, naturally prevent ‘locking’ and collapse at key joints in the body and so protect them from harmful stress. Along with that, they reestablish proper alignment with gravity and culminate in organic extension through the energetic core of the body.

### Types of Posture Relative to the Center of Gravity





The Loops operate in the sagittal plane of the body, meaning that actions in the front and back of the body influence one another to create extension through the core. Viewed from the side, the relation between actions in back and front can be envisioned as wheels or ‘loops’ of energy. With the exception of one pair of loops – those governing the thighs and pelvis, which are in dynamic opposition to each other – the turning of a loop in one direction is matched by the turning of the one above it in the opposite direction, like gears.

**What exactly is ‘moving’ through the Loops?** Both the upward lift and the downward flow of energy in each loop is created by the actions of complementary muscles. Two examples are:

- The **pelvic loop**: which is created as the muscles at the tops of the buttocks firm and draw from the waistline downward toward the tailbone, while the lower belly (below the navel) draws in and up toward the navel, lifting and supporting the lumbar spine. In this way, energy flows down through the tailbone as it ‘scoops’ down and forward toward the pubic bone, toning the pelvic floor, and travels up at the front as a lift through the lower belly up toward the navel. The pelvic loop is like a pinwheel of energy, with organic extension traveling through the body in two directions – downward through the legs as a grounding force, balanced with upward extension through the spine.
- The **shoulder loop**: which is created as the muscles around the shoulder blades draw down toward the waist and press forward at the lower tips of the shoulder blades to open the heart, opening and broadening the top chest and lifting and opening the upper palate – better aligning the head and neck relative to the spine and shoulders – and looping back to the shoulderblades. The end result is to center the torso, neck and head on the axis of the spine.



Overall, there are **seven** sections in the body in which loops operate. Each ‘loop’ envisions how Muscular and Organic energies should flow in a specific area of the body in a way that provides the best alignment as a whole when integrated with the actions of the other loops. The loops work *together*, like gears turning upon one another, fine-tuning the core strength of the body and extension through that core from head to toe.



A basic insight behind the mechanics of the Loops is what we can rather simply call the ‘Seesaw’ principle.

## THE SEESAW PRINCIPLE



This informal principle simply recognizes that, like a children's seesaw, when one end of a bone is moved in one direction, the other end of the bone is moved in the opposite direction.

This is most obvious in cases of hyperextension, particularly of the knees. When hyperextension pushes the top of the shinbone and bottom of the thighbone back past vertical, this pushes the other ends of the bones – bottom of the shinbone and top of the thighbone – forward. When the knee joint 'locks' in hyperextension, all of the joints are affected, with one side of the joint being compressed while the other side is overstretched and weakened. The overall effect of this on posture, relative to the centerline of gravity, has already been treated above. Once we get into the Loops, we get into micromanaging each part of the body to bring ourselves back to our center.

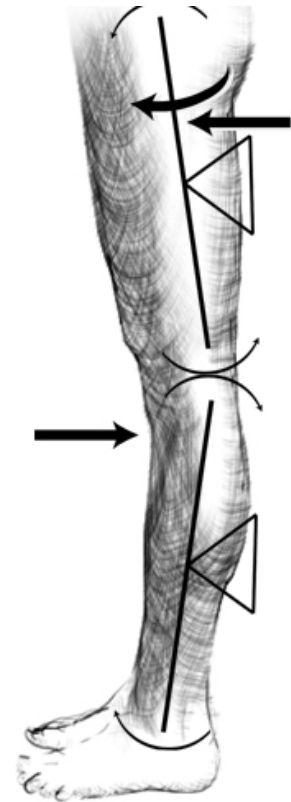
The Loops address this problem by following the movement of energy along the lines of the 'seesaw' to see how the muscles, when properly engaged, can work in opposition to bring the seesaw into balance. We can envision the Loops as circles or cycles of pranic energy that through the engagement of Muscular Energy bring greater muscular support to the side of the joint that is being overstretched by being pushed 'back' beyond the centerline. The Loop brings that end of the bone 'forward', relieving the overstretching, while righting the other end of the bone as well.

The Loops, as we'll see, interpenetrate one another, and so (starting from the foundation), working with each Loop profoundly influences the next, progressively bringing the whole body into balance.

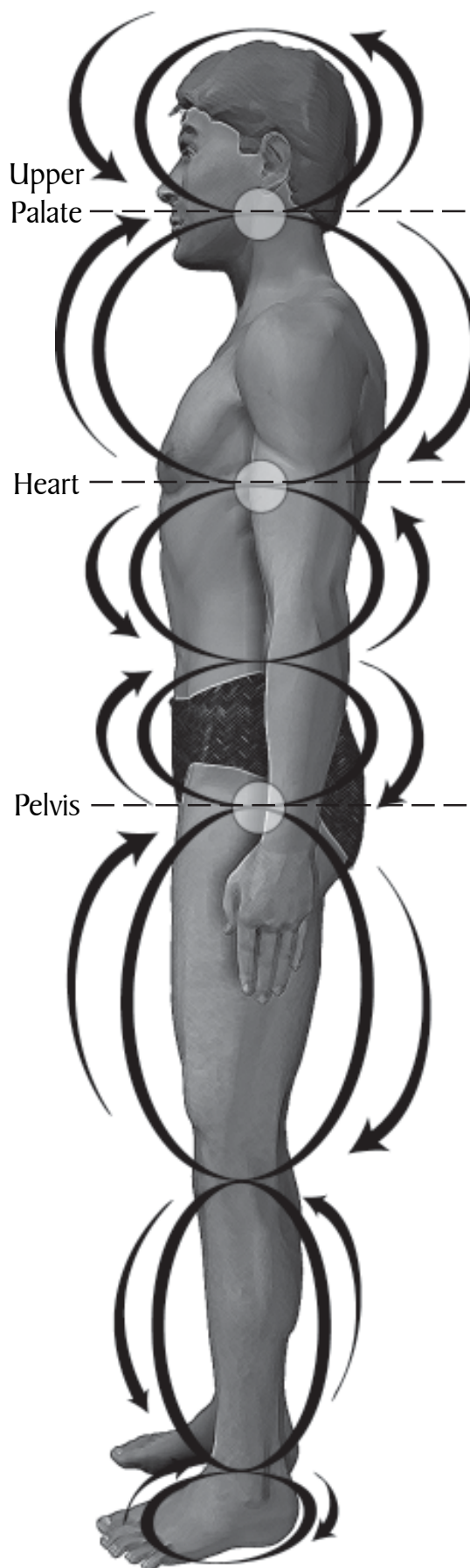
The **organizing energy** behind this is the **Organic Energy** of extension and expansion, which brings the whole body into line like a magnetic field that snaps iron filings into formation.

The **driving energy** behind this is **Muscular Energy**, which **unifies and integrates** the body; **Organic Energy** gives this unity **form and expression**.

Muscular and Organic Energy is the play of masculine and feminine energies – in the iconography of tantric schools of yoga this is expressed as the inseparability of **Shiva** (the formless One) and **Shakti** (the expression of the One as form – in endless variety, but always One, an integrated and Organic Whole). The dance of this inseparable pair is expressed in the spiraling cycles of energy of nature that endlessly turn in upon themselves (in a 'loop' of energy) for renewal. These Spirals are the embrace of Shiva and Shakti.



# FOCAL POINTS



# LOOPS

## Head Loop

The Head Loop starts from the Focal Point at the center of the upper palate and moves back, releasing the base of the head upward while following the curve of the cervical spine. It flows up and over the top of the head and softens down through the face as it returns back to move through the Focal Point. The Head Loop in combination with the Shoulder Loop creates extension of the thoracic and cervical spine up through the crown of the head.

## Shoulder Loop

The Shoulder Loop starts at the Focal Point in the Upper Palate and draws down the back of the neck and upper back to the bottom tips of the shoulderblades, then forward through the Focal Point at the bottom of the Heart, where the heart rests upon the diaphragm. From there it moves up through the chest, creating lift and expansion in the top chest and an opening and softening in the throat as it returns to the Focal Point in the upper palate.

## Kidney Loop

The Kidney Loop starts in the core of the abdomen just below the navel, and lifts up and draws back from just below the kidneys, taking the lower ribs back while creating length in the side body. With this action, the Kidney Loop makes room for the expansion of the diaphragm in the back body. It moves upward to the bottom tips of the shoulderblades and forward through the Focal Point in the Heart. From there it draws downward through the Xiphoid Process (bottom tip of the sternum) and Solar Plexus as it returns back to the point just below the navel. The Kidney Loop in combination with the Pelvic Loop creates extension of the lumbar and thoracic spine.

## Pelvic Loop

The Pelvic Loop starts in the core of the abdomen just below the navel and moves down through the lumbar spine to the bottom of the sacrum, then forward following the curl of the tailbone through the pelvic floor, through the Focal Point in the core of the pelvis where the Thigh Loop and Pelvic Loop meet, to the top of the pubic bone. From there it moves up through the lower abdomen toward the navel, supporting the grounding and extension of the lumbar spine as it returns to the point in the abdomen just below the navel.

## Thigh Loop

The Thigh Loop starts at the tops of the thighbones and the level of the Focal Point at the base of the Pelvis. It moves down through the backs of the legs to the tops of the calves, and forward through the tops of the shins and up the fronts of the thighs as a strong muscular lift, returning to the tops of the thighs at the level of the Focal Point in the Pelvis.

## Shin Loop

The Shin Loop starts at the base of the shinbone just above the ankle joint, taking the base of the shinbone back as it draws muscularly up through the calves to the tops of the shins just below the knees. Here it moves forward through the top of the shins and flows organically down through the fronts of the shins and back to the base of the shins.

## Ankle Loop

The Ankle Loop starts at the base of the shinbone just above the ankle, creating a muscular lift through the arches and tops of the feet. It moves back and down through the heel and forward organically through the sole of the foot, returning up through the center of the arch to the base of the shin.

## THE RELATIONSHIP BETWEEN THE LOOPS, FOCAL POINTS AND SPIRALS

The **Loops** describe the movements and flows of energy that interpenetrate and overlap to support and protect the joints while creating extension through the length of the body. The **Focal Points** are key points of overlap, from which this extension radiates; as such, the **Focal Points** are like vortexes of expansive energy created by the interweaving currents of the **Loops**, much like the **chakras** are spinning centers of energy created by the opposing currents of the **ida** and **pingala nadis**.

The **Spirals** work primarily on the *horizontal* plane to govern healthy alignment and *expansion* at key points in the body – expansion in the pelvis to create freedom of movement with stability for the hips and lower back, and expansion in the shoulder girdle to create freedom of movement with stability for the shoulders, neck and upper back.

With expansion also comes extension through the work of the spirals, and it is around these key points in the torso – at the **Focal Points** in the pelvis and in the heart – that the **Loops** and **Spirals** overlap in their functions. For the **Loops** work primarily along the *vertical* axis to govern *extension* through the core of the body.

The overlap takes place primarily around the **Focal Point in the Pelvis**, where the **Thigh Loop and Pelvic Loop** correspond roughly to the **Inner Spiral and Outer Spiral**.

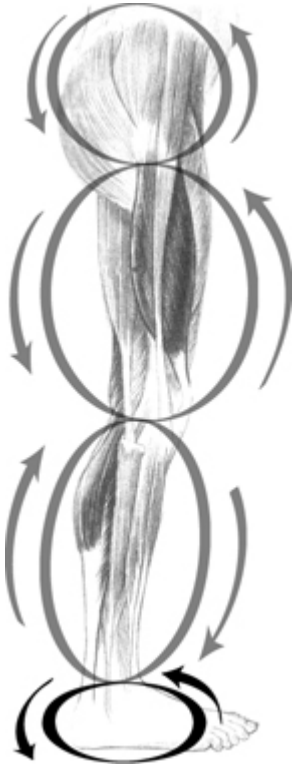
In the upper body, centering around the **Focal Point in the Heart**, the complex actions of the **Expanding and Extending Spirals of the arms** join in the expression of the **Shoulder Loop**.

In both cases the consequences of the **Spirals** are mainly lateral expansion and compression, while in the case of the **Loops**, the consequences are vertical extension, albeit in a ‘curvilinear’ fashion, in keeping with the balance of energies that creates both grounding and extension.



# LOOPS IN THE LOWER BODY

## THE ANKLE LOOP



The Ankle Loop lifts the arches, 'opens' the ankle joint, and grounds the heel

on all sides of your feet and legs. This shifts your weight back into your heels while lifting your arches.

The Ankle Loop is completed when you extend organically through your toes without losing the lift of your arches.

The Ankle Loop assists the Shin Loop in taking the base of the shin back, while releasing and grounding the heel. Organic extension through the toes balances the actions of the muscles, completing the Loop, and prevents hypercontraction of the muscles in the sole of the foot.

Notice that the feeling is entirely different from the common tendency to grip or 'scrunch' our toes. Gripping with the toes tightens the soles of the feet, encourages the arches to fall, and promotes hyperextension in the knees. The Ankle Loop gives a feeling of softness and lightness in the feet, a feeling of grounding into the earth, and releases tension in the soles of the feet while lifting the arches from both above and below, and resists hyperextension of the knees.

The difference between these two experiences is a great example of the qualitative difference between Muscular engagement and tension.

### EFFECT

The **Ankle Loop** addresses issues tightness in the soles of the feet, Achilles tendon and calf that contribute to hyperextension of the knees, as well as tightness and immobility in the fronts of the ankles that contribute to fallen arches.

The Ankle Loop grounds your leg by extending organically downward into the earth through your heel, while engaging and lifting your arches and taking the base of your shinbone back to align and open your ankle joints.

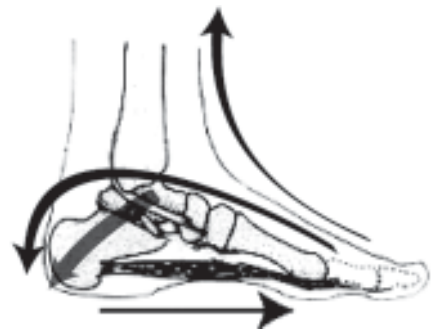
### DESCRIPTION

The **Ankle Loop** begins at the base of the shinbone above the ankle. The Loop grounds your leg by extending organically downward into the earth through the back of your heel, while engaging and lifting your arches and taking the base of your shinbone back, opening your ankle joints.

### ACTION

Creating the Ankle Loop is as simple as lifting your toes to energize your feet.

While standing, bend your knees slightly and lift your toes, drawing up through the muscles equally



The Ankle Loop creates a lift through the fronts of the feet, a descent through the heel, and a toning and lift at the soles of the feet, all of which supports the lift of the arches. It also assists the Shin Loop in moving the base of the shin back.



The Ankle Loop can start simply with a lift to the toes, lifting the arches and energizing the feet.



## THE MUSCLES AT WORK IN THE ANKLE LOOP

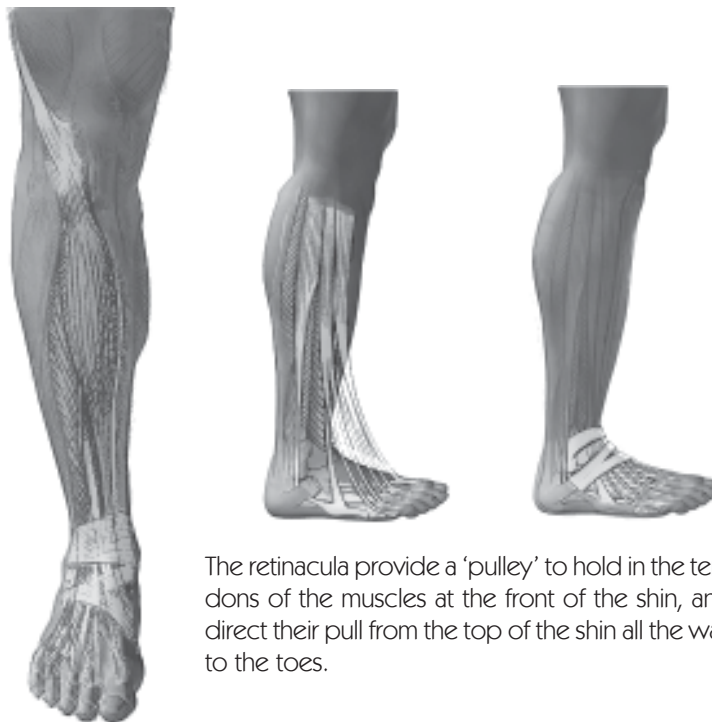
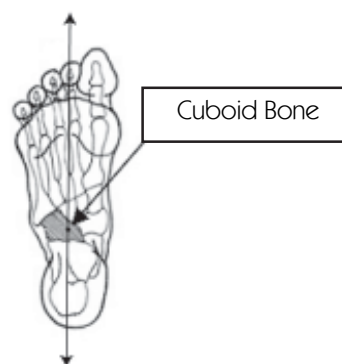
Lifting your toes is a very simple action to engage Muscular Energy. The practice of the Ankle Loop greatly refines this action, bringing greater awareness and intelligence to how we work with our feet.

This muscular lift, when it initiates the **Ankle Loop**, draws energy up the front of the foot and ankle, takes the base of the shinbone back and brings more weight to the heel, so that the **center of gravity** in your foot is just forward of the heel (at the **cuboid bone**, the keystone of the foot). As you extend organically through your toes, you complete the 'Loop'.

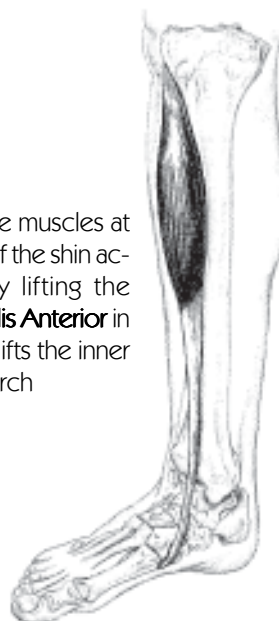
The muscles at the *tops* of the feet involved in the Ankle Loop do not stop at the ankle itself, but rather — as the illustration shows — continue up the *front of the shin* to attach at the head of the shin. They run through a band of fascia at the ankle (the 'retinacula'), like ropes running through a pulley that connect the muscular action at the front of the shins to the lift of the arches.

So when the top of the ankle — this fascial band — is tight, this tightness limits the actions of these muscles, making it hard to lift the toes as well as hard to lift the arches. This is one reason why stretching the tops of the feet in poses such as Vajrasana and Virasana help to build the arches of the feet — by freeing up the actions of the muscles that create the Ankle Loop.

Interwoven with this network of muscles is one muscle in particular — the **Tibialis Anterior** — which attaches directly to the inner arch and inserts at the head of the shin. It plays the central role in lifting the arch, and is intimately connected with the action of lifting the toes — the big toe in particular.

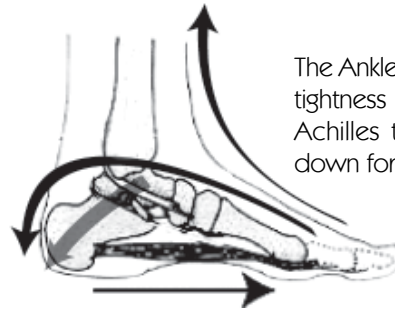


The retinacula provide a 'pulley' to hold in the tendons of the muscles at the front of the shin, and direct their pull from the top of the shin all the way to the toes.



Among the muscles at the front of the shin activated by lifting the toes, **Tibialis Anterior** in particular lifts the inner (medial) arch

By the same token, the muscles at the *soles* of the feet are intimately connected with the condition of the calf muscles at the *backs of the legs* — especially through the fascial connection that runs through the heel and Achilles tendon. In general, when these muscles, both at the soles of the feet and in the calves, are tight and shortened, they press the heelbone forward into the ankle joint, taking the base of the shinbone (tibia) forward as well. This is what causes both pinching at the back of the ankle of the forward leg in Trikonasana, as well as collapse and compression at the fronts of the ankles, and excessive pulling in the Achilles tendon (and soreness in the Plantar Fascia) in Downward Facing Dog Pose — Adho Mukha Svanasana. The Ankle Loop seeks to remedy this situation by getting the heel bone to release down into the earth and ground as the arches of the feet are lifted.



The Ankle Loop promotes a release of the fascial tightness through the sole of the foot, heel and Achilles tendon, releasing the heel back and down for proper grounding.

## THE ANKLE LOOP AND HYPEREXTENSION OF THE KNEES

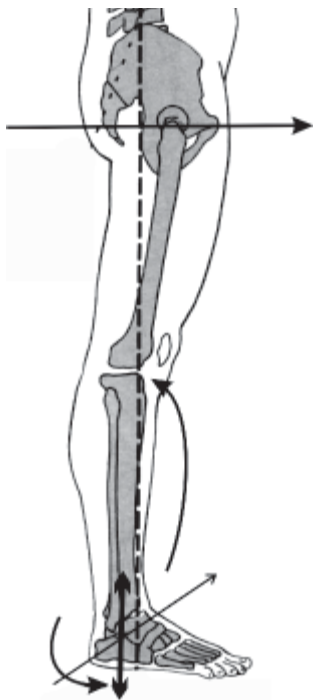
This connection from the soles of the feet to the backs of the knees shows up especially in cases of hyperextension of the knees. This hyperextension is addressed more directly by the Shin Loop, but a source of the problem also lies in what is going on in the ankles.



**Hyperextension** most often happens when the knees ‘lock’ and the head of the shin is pulled back behind the center line of gravity. The arches are quite often collapsed, and the tops of the feet are disengaged, while the muscles at the soles of the feet can tighten from the toes gripping — especially in balancing poses.

The photograph to the left shows a fairly common example of hyperextension. We can see that although one might even try to lift the toes to create an Ankle Loop, as long as the knees stay ‘locked,’ this action would have little beneficial effect, and tends to only tighten the fronts of the shins. The knees must be ‘unlocked’ — by bringing a slight bend to the knees at least, to bring the base of the shin back as well as the head of the shin forward — if a proper Ankle Loop is to be created.

As you can see in the picture, in cases of hyperextension, one is indeed ‘back’ on one’s heels, but this is very different from being ‘grounded’ through one’s heels. Here the heelbones are actually being pulled *away* from the earth through the pull of muscles at the back of the leg, from the back of the knee through the sole of the foot. This is not a genuine grounding, since the bones of the leg are out of alignment with gravity. A good Ankle Loop will release the heelbone back and down into the earth, aligning the legbones with gravity, while lifting the arches.



The above illustration illustrates how the tightness through the heel — which presses the ankle bones forward while the head of the shin moves back — prevents any lifting action through the top of the foot. The arches tend to fall inward, while the muscles at the front of the shin shorten without lifting. The problem can only be righted once the knees are unlocked.

The wrinkles are the result of the base of the shin being pressed forward, collapsing the ankle joint at the front. This comes from the pull that runs from the sole of the foot through the heel to the calf. Tight students usually grip with their toes the more they try to press their heels down.

To reverse this by creating a proper Ankle Loop, lift your heels slightly, and lift your toes to engage Muscular Energy (this works, even if your toes don't come up off the floor). This draws energy up the top of the foot, bringing space to the bones in your ankles while taking your shinbone back, erasing a good deal of the wrinkles. Keep this lift going and stretch back through the soles of your feet while extending forward through your toes.

See how the pull in your Achilles tendon lessens, while the stretch in the middle or 'belly' of your calf increases. Then you are better able to extend back and down through your heels, while keeping the lift of your arches.

## APPLICATIONS

### ARDHA CHANDRASANA

The problem of grounding when the knee is hyperextended shows up especially in the pose **Ardha Chandrasana** — which is why, as a balancing pose, it is so effective in teaching one to ground properly through the standing leg by overcoming the hyperextension. Quite often in the pose when the knee is hyperextended, the toes are white-knuckled in gripping the floor as they work to maintain balance, only causing further hyperextension in the knee — as well as collapse of the arch, tightness in the sole of the foot, tightness at the front of the shin, and jamming in the standing leg hip (because the thighbone is being pushed forward in the joint and is rotating inward from the hyperextension of the knee). The problem *starts* in the foundation — from a lack of a proper Ankle Loop.

When coming forward into Ardha Chandrasana, try lifting the toes of your standing leg (while your knee is still bent) to create the Ankle Loop before lifting into the pose. You'll find your weight is shifted back into your heel and you will feel more grounded through the leg. Coming into the pose with a good Ankle Loop will help you to resist hyperextension (with the help of the Shin Loop), and you will be able to extend through your toes for balance without gripping. If your toes grip, it's a sign that your knee has locked, or your weight has shifted too far forward — beyond the center of gravity through your leg.

### DOWNWARD FACING DOG POSE

The lack of an Ankle Loop can also show up in **Adho Mukha Svanasana** (Downward Facing Dog Pose), particularly when your knees hyperextend, or when you try too hard to press your heels to the floor.

Notice how in such cases, the fronts of your ankles collapse (along with the inner arch), causing a lot of wrinkles at the front of your ankle. Also notice the feeling of pulling at the Achilles tendon (and at the back of your knee).

#### Downward Facing Dog Pose



'Pushing' the Heel down in Dog Pose:  
— tightness through the heel pulls at the back of the heel and Achilles tendon as the heelbone presses up against the talus bone;  
— the pull through the fascia from the inner heel to the base of the big toe collapses the arch, pulling at the soles of the feet;  
— the base of the shin moves forward, causing wrinkles as the front of the joint is pinched



## TRIANGLE POSE

In **Trikonasana** (the Triangle Pose), notice how at the **front leg** (over which you are extending your torso) you may feel a compression at the back of your heel in the area of your Achilles tendon; at the same time, notice how the top of your ankle may be bulging from your shinbone being pushed forward in the joint.

As heavy as the heel may feel on the floor, the Achilles tendon is actually shortening and pulling up, compressing the joint at the back, rather than allowing you any real organic grounding through the heel. (The compression at the back of the ankle is particularly a complaint in cases of chronic hyperextension) Bend your knee slightly and lift your toes to engage the Ankle Loop; feel how as you draw energy up the front of the foot, taking the base of the shinbone back (this only happens when the knee is at least slightly bent), your heel actually can release downward, organically grounding your heel while creating space at the back of the ankle joint.

Keeping the mound of your big toe grounded as you maintain the Ankle Loop, extend your leg straight again, extending out through your toes. If you still feel compression at the back of your ankle, try shortening your stance.

Notice that your **back leg** foot in Trikonasana may be collapsing in the same way as in Downward Facing Dog Pose. The remedy is the same to create the Ankle Loop, and extend especially back and down through your outer heel to maintain the inner arch of your foot. This will help you to open your hip properly with the Outer Spiral as well.

Trikonasana



In the Trikonasana pictured on the left, we can see how lack of an Ankle Loop causes both pinching at the back of the ankle (and the heel is pulled away from the earth) and bulging at the front of the ankle as the shinbone and ankle bones are pushed forward in the joint. Engagement of the Ankle Loop (center illustration) reverses this, allowing the heel to ground (right illustration).

## THE SHIN LOOP



The Shin Loop takes the base of the shin back and the head of the shin forward

The **Shin Loop** directly addresses issues of locking or hyperextension of the knee. It generally provides support for proper alignment of the shin bone(s) relative to the thighbone, and is important especially when students experience pain ‘inside’ the knee (under or behind the kneecap), which can be caused by misalignment of the head of the shinbone — where the shin is too far back behind the thighbone.

The Shin Loop prevents hyperextension in the knees by taking the head of the shin forward, while drawing the base of the shin back. It builds upon the actions of the Ankle Loop; both Loops involve many of the same muscles at both the front and back of the leg. Thus a good Ankle Loop is part and parcel of a good Shin Loop, and just as with the Ankle Loop, the Shin Loop supports grounding and extension through the bones or core lines of the legs.

The **Shin Loop** begins at the base of the shinbone above the ankle, where it meets the Ankle Loop. Muscular Energy draws up the back of the calf and forward to take the top of the shinbone forward; from there the energy flows downward along the front of the shin, and the base of the shin moves back.

The **benefit** of the **Shin Loop** is that it works

1. To prevent compression and/or hyperextension in the ankle joint, in conjunction with the **Ankle Loop**.
2. To prevent hyperextension of the knee by balancing the actions of the muscles of the lower legs, in conjunction with the **Thigh Loop**.

The **action** to create the Shin Loop involves a dynamic interplay between the muscles of the lower leg:

### Muscles at the Back of the Shin

#### Gastrocnemius

- originates above the knee at the thighbone
- attaches at the heel, running over the Achilles tendon
- used to bend and straighten the leg, and point the toe



#### Soleus

- originates at the shin below the knee
- attaches at the heel via the Achilles tendon
- used to push off when walking; the Soleus is disengaged when the toe is pointed or the foot is fully flexed



#### Deep Muscles

- originate in the sole of the foot and run underneath the Soleus and Popliteus
- used to push when walking, and provide support to arch and to the back of the knee
- Popliteus and Plantaris affect the rotation of the knee joint (for further discussion of this issue, see ‘The Shin Loop Revisited’ later in this book)



## Muscles at the Front of the Shin



Tibialis Anterior supports the inner arch from the Muscular lift at the front of the shin



The intimate relationship between the Ankle Loop and Shin Loop at the front of the shin becomes clear when we remove the fascial sheath across the front of the ankle. When we lift the toes to engage the Ankle Loop, the same muscles that lift the toes and arch exert a 'downward' pull that draws the head of the shin forward, resisting hyperextension of the knee.

At the **back** of the leg, this involves a complex of muscles that includes the Gastrocnemius (generally thought of as the 'calf muscle'), the Soleus, as well as the Popliteus at the back of the knee and a number of deep muscles that run behind the Popliteus. These deeper muscles are especially active at the 'push-off' stage of walking and support the inner arch of the foot (medial arch) as well as the back of the knee. Thus **'stepping on the gas'** or pressing through the mound of the big toe plays a significant role in activating these muscles for the Shin Loop.

At the **front** of the leg, this involves the same muscles as those used in the Ankle Loop - notably Tibialis Anterior. As we saw, the muscles involved in lifting the toes and arch attach to the head of the shinbone; through the 'pulley' of the ankle, the contraction of these muscles influence the head of the shin to move forward and the energy of the muscles draws downward, from the head of the shin toward the ankle.



The muscular action (from lifting the toes) at the front of the shin with the Ankle Loop encourages the head of the shin to move forward, and the base of the shin to move back.

The firming at the back from 'stepping on the gas' puts muscular power behind the Shin Loop.

## TO CREATE THE SHIN LOOP

The basic effects of the Shin Loop are that the head of the shin moves forward, and the base of the shin moves back. The actions that create these effects involve both the front and back of the leg, and are closely related to the actions of the Ankle Loop — and so a good Ankle Loop is part and parcel of a good Shin Loop.

Moreover, the knee should not be hyperextended; if the knee is already misaligned through hyperextension, then the very muscles that would resist the hyperextension through the Shin Loop are disengaged, and the hamstrings pull to create more hyperextension — especially when the calf muscles are weak. So if the knee is hyperextended, the knee must first be bent slightly to allow realignment of the bones and engagement of the Shin Loop.

The basic actions involved:

1. Begin with the **Ankle Loop**: lift your toes to draw energy up the front of the foot, releasing the heel down. This takes the base of the shin back while encouraging the head of the shin to move forward. This paves the way for the Shin Loop by releasing the kinds of tension in the feet and lower legs that otherwise work against it.
2. Engage the **Shin Loop**: press through the mounds of the toes (without ‘scrunching’ the toes, and without lifting the heel / losing the Ankle Loop). This firms the **calf** at the back of the leg, pressing the head of the shin forward. The mound of the big toe is especially important because the Shin Loop involves both the calf muscle and deeper supportive muscles that attach at the base of the big toe — so ‘stepping on the gas’ with the mound of the big toe (while still grounding and extending through the little toes) plays a significant role in engaging the Shin Loop.

### THE ‘CALF’ PART I: GASTROCNEMIUS

The ‘calf’ is more complex than we give it credit for being: the muscles involved in what we generally think of as the ‘calf’ include both the **Gastrocnemius**, which originates *above* the knee at the base of the thighbone, and the **Soleus**, which originates below the knee at the back of the shinbone.

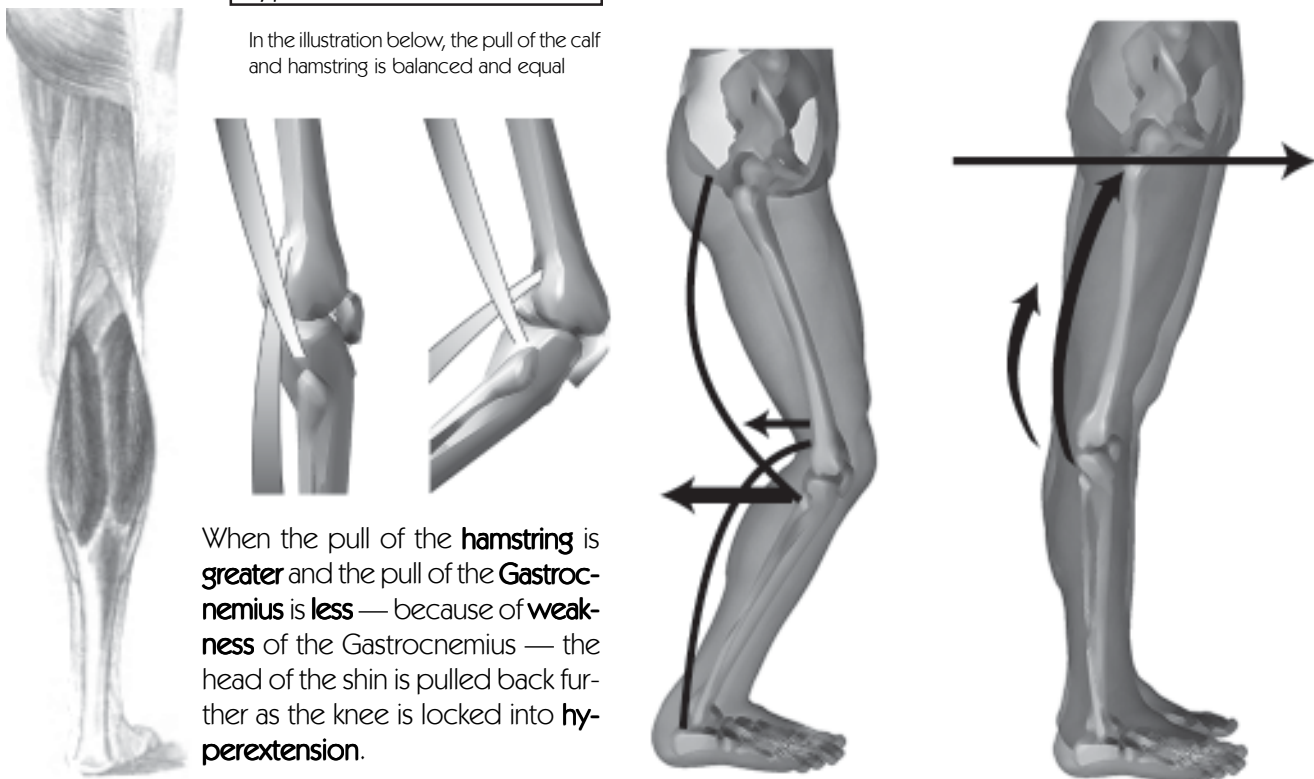
The **Gastrocnemius** has more to do with bending and straightening the leg at the knee. It works to

1. **point** the foot,
2. **rotate** the knee inward.
3. **bend** your knee (when your foot is free, as when your leg is *not* weight bearing); since the lower leg is free to move, the pull of the calf muscle bends the knee.
4. **straighten** your leg (when foot is fixed, as when your leg *is* weight bearing); since the lower leg is not free to move, the pull of the calf muscle — along with the pull of the hamstrings — draw at the back of the knee to straighten the knee.

**Straightening the Leg:** The gastrocnemius and the hamstrings have a special relationship: when the foot is fixed in place, they work together to straighten the leg, since they cross over each other at the back of the knee, attaching to the leg bones above and below the knee. This fact brings us immediately to a pressing issue of great practical significance in yoga: hyperextension of the knee.

#### Hyperextension of the Knee

In the illustration below, the pull of the calf and hamstring is balanced and equal



When the pull of the **hamstring** is **greater** and the pull of the **Gastrocnemius** is **less** — because of **weakness** of the Gastrocnemius — the head of the shin is pulled back further as the knee is locked into **hyperextension**.

## WHAT CAUSES HYPEREXTENSION?

Hyperextension of the knee arises primarily from the relationship between the hamstring and gastrocnemius, though it does have secondary causes, including simply the habit of ‘locking’ the knees in one’s everyday posture — usually unconsciously.

When the relationship between the hamstrings (especially the hamstrings at the inner knee) and the gastrocnemius is **imbalanced** — **if the Gastrocnemius is weak** — the hamstrings exert a greater pull, yanking the head of the shin back and taking the knee into **hyperextension**. Hence a good Shin Loop — one that resists the pull of the hamstrings at the back of the knee — requires that the muscles of the lower leg be engaged.

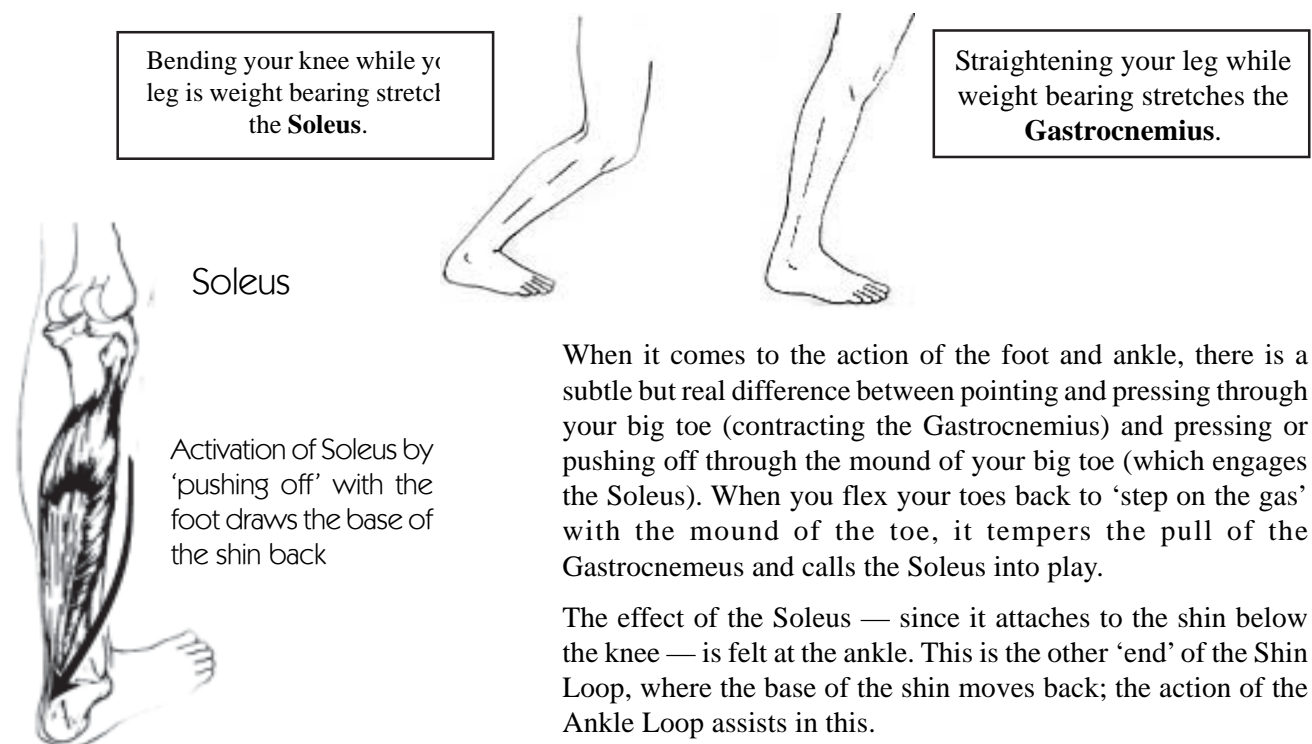
When it comes to the Gastrocnemius, the **tendency toward hyperextension** is at its **worst**

1. When the **toes are fully pointed** — limiting the ability of the gastrocnemius (by hypercontracting it) to balance the hamstring. This can be seen in dancers and gymnasts who point their toes when the leg is fully extended: the pull of their powerful quadriceps as well as of their hamstrings tends to draw the knee into hyperextension. The calf muscles are not in a position to resist the hyperextension, and the fronts of the shins (tibialis anterior) are disengaged as well.
2. When the foot is excessively flexed, which disengages the gastrocnemius (as well as the Soleus muscle), allowing the hamstrings to pull back at the head of the shin, drawing the knee into hyperextension and weakening it. This can be seen in Downward Facing Dog pose, when the heels are pressed to the floor without proper engagement of the calf muscles.

## SOLEUS

Yet there is more to the Shin Loop than simply the Gastrocnemius. The strength of the ‘calf’ required for a good Shin Loop involves both the Gastrocnemius and Soleus muscles — each of which plays a significantly different function in terms of their action on the shin — as well as of even deeper muscles.

While the gastrocnemius plays its role at the back of the knee; the **Soleus** has more to do with the **ankle**. The Soleus is activated to **push off with the foot** (as in walking or climbing the stairs) through the Achilles tendon. The ‘calf stretch’ used by runners is actually more of a stretch to the Soleus.

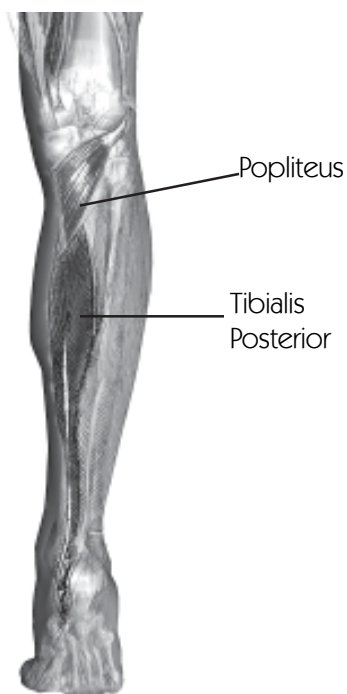


When it comes to the action of the foot and ankle, there is a subtle but real difference between pointing and pressing through your big toe (contracting the Gastrocnemius) and pressing or pushing off through the mound of your big toe (which engages the Soleus). When you flex your toes back to ‘step on the gas’ with the mound of the toe, it tempers the pull of the Gastrocnemius and calls the Soleus into play.

The effect of the Soleus — since it attaches to the shin below the knee — is felt at the ankle. This is the other ‘end’ of the Shin Loop, where the base of the shin moves back; the action of the Ankle Loop assists in this.

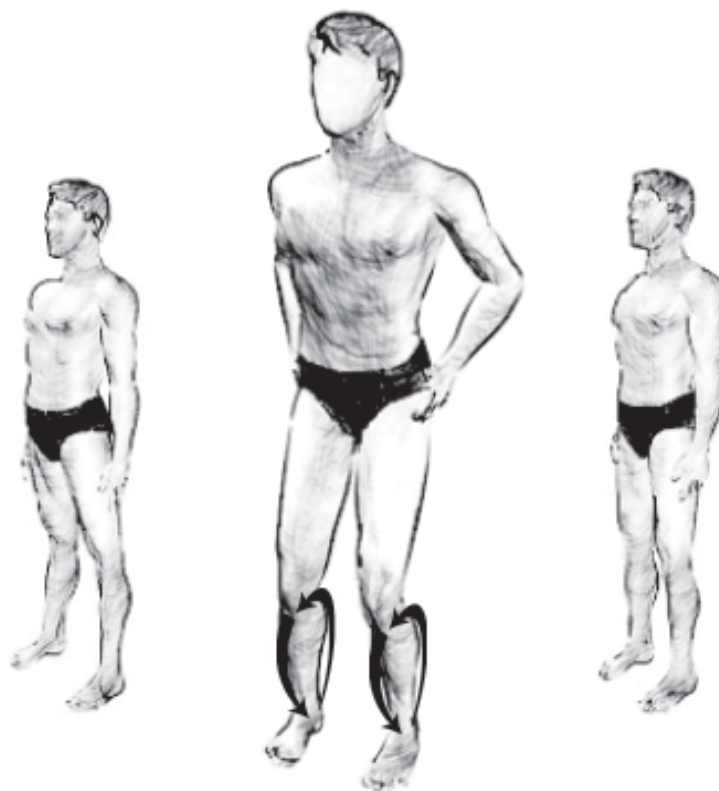


The deeper muscles — beneath both the Gastrocnemius and Soleus muscles — that also support the Shin Loop are the Tibialis Posterior and Popliteus. These muscles affect the rotation of the knee and also provide support to the tissues at the back of the knee against injury to the meniscus (an injury that is both common and serious).



You can feel the actions of the Shin Loop in **Tadasana**:

1. First (as an example of the opposite) stand up straight and ‘scrunch’ your toes — the tips of your toes — into the ground; see how it is easy to lock and hyperextend your knees, and notice how you may feel a pulling at the back of the inner knee.
2. Now bend your knees and lift your toes to energize your arches, drawing energy up through the fronts of your shins (Tibialis Anterior) with the Ankle Loop. This also draws the head of the shin forward, resisting hyperextension, because of the connection through Tibialis Anterior.



Press lightly through the mounds of your toes, as if trying to lift your heels, and feel how the middle of the calf firms (Soleus) — this adds to the action of lifting the toes, and encourages the base of your shins to move back. As the Soleus engages by ‘stepping on the gas,’ you can feel how energy draws up the back of the ‘calf’ deep and close to the bone. Keep this muscular firmness as you begin to straighten your legs.

3. As you straighten your legs (while still pressing through the mounds of your toes), you will feel the upper part of your calf (the Gastrocnemius) firm and press forward. You will feel how this action of the Shin Loop at the upper part of the shin resists hyperextension of the knee from the pull of the hamstring.

As you straighten your legs while grounding through your heels, soften and extend through your toes, keeping your arches lifted. You can feel a subtler flow of energy downwards through the fronts of your shins, even while keeping the muscular engagement and lift that keeps your arches lifted.

### **Why make it so complicated?**

It’s worth feeling the actions of the different muscles at play in the Shin Loop, particularly because in different poses you have varying degrees of how much the foot is flexed (eg. Downward Facing Dog Pose) or extended (eg. Triangle Pose) as well as degrees to which the knee is bent or straightened. The actions of the Shin Loop will be nuanced in the different poses — as well as the actions by which you create the Shin Loop — and this does have bearing on the health of the knees as well as of the ankles.

### THE SHIN LOOP IN **TRIANGLE POSE**.

1. First take a wide stance and — with your front foot — point your toe and press the tip of the toe into the ground: feel how the calf muscle contracts. Though you may feel the calf muscle (gastrocnemius) firm, you will also feel a distinct pull at the back of the knee from the hamstring, drawing the knee into hyperextension particularly at the inner knee. In this case, the Gastrocnemius — though engaged by pressing through the (pointed) toes — is not enough to resist the pull of the hamstring.
2. Now bend your knee slightly to unlock the hyperextension. Lift your toes and feel how the top of the shin moves forward, resisting hyperextension from the Muscular Engagement at the front of the shin, connected to the lift of the arches. Now press through the mound of your big toe (not so much that the heel lifts); feel how the middle of the calf muscle firms. This is the Soleus. Notice how this engagement in the middle of the calf resists the pulling at the back of the knee, and actually resists hyperextension until and unless you lock your knee. Begin to straighten your leg, feeling how the upper part of the calf firms, creating a ‘lift’ particularly at the inner knee. As you draw Muscular Energy up through your thighs on all sides, ‘hugging’ the muscles to the bone while straightening your leg, you can now balance the energy of the calf and hamstrings and extend organically through the bones without any collapse at the inner knee.

In the case of the **Triangle Pose**, it is challenging to keep a proper Shin Loop because of the degree to which the toes of the front foot are ‘pointed.’



## THE SHIN LOOP IN ADHO MUKHA SVANASANA (DOWNWARD FACING DOG POSE):

1. First take Downward Facing Dog Pose and press your heels down to the floor. It's likely that you'll feel a pulling or excessive 'stretch' at the back of your knee, as well as at your Achilles tendon. You may also find your arches and the fronts of your ankles collapsing, a tightening at the fronts of your shins, and your knees turning in and hyperextending. All of these are the result of excessive pulling of the hamstring against the Gastrocnemius from your attempts to push your heels down.
2. Now lift your heels an inch or so, bending your knees slightly to 'unlock' the hyperextension. Lifting your toes slightly, press down through the balls of your feet, energizing your arches. Feel how 'stepping on the gas' in this way firms the middle part of your calves (i.e. the Soleus). Press through your arms and lengthen back through your upper body, and stretch *back* through your heels and extend forward through your toes – without losing the firmness of your middle calves – and see how your heels come down toward the floor, but without the problems that came from pushing the heels down.

In the case of the **Downward Dog Pose**, it is challenging to keep the Shin Loop engaged because of the degree to which the foot is **flexed**. This disengages the Gastrocnemius in particular, so that the hamstring is able to pull strongly at the back of the knee. Working with the engagement of the Soleus first enables you to better maintain the muscular engagement of the whole calf as you straighten your leg. Pressing through the mounds of your toes keeps your Gastrocnemius engaged as you fully straighten your legs, keeping the stretch in the 'belly' of the muscle, rather than allowing a pull at the Achilles tendon.

### STRETCHING WITH THE SHIN LOOP



As the Shin Loop engages your Gastrocnemius along with your Soleus muscles, the Gastrocnemius can lengthen (i.e. 'stretch' in a healthy way) without pulling at the attachment points above your knee.

To **experience** the play between the two muscles in a 'calf stretch,' try the following:

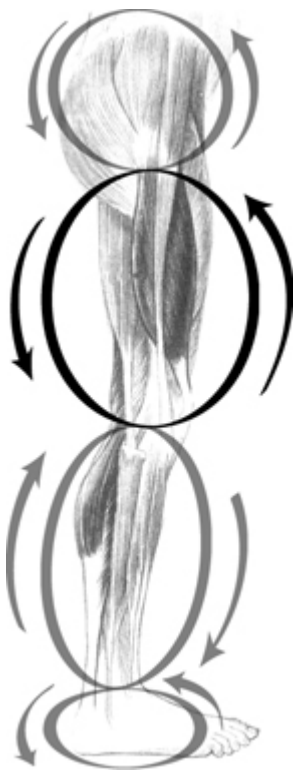
Roll up a blanket or sticky mat into a tight roll. Step onto the roll with the mounds of your toes on the roll and your heels still on the floor, your feet about hip distance apart. **Keep your knees bent.** Hold onto a chair or use the wall to help you keep your balance; for a deep stretch, bend forward at your hips, bringing your fingertips to the floor.

Lift and spread your toes, again keeping your knees bent. Gently press the mounds of your toes – particularly the mound of your big toe – into the roll, 'stepping on the gas' (without your heels lifting off the floor). This activates the Soleus muscle and in general the Shin Loop: energy draws up the back of your calves, taking the top of your shins forward. At the same time, the muscles at the fronts of your shins draw downward.

— **Notice** how the energy flows if you do the **opposite**. Try to flex your foot, lifting the mounds of your toes up off the roll, and feel how there is a downward pull through your calves (pull of the gastrocnemius). If you straighten your legs while doing this, your knees lock and hyperextend.

Keeping the Shin Loop activated by bending your knees, lifting your toes and 'stepping on the gas' (activating the Soleus and fronts of the shins), draw energy up through your thighs (Thigh Loop) and slowly straighten your legs to stretch your calves.

— **Notice** also that if you start with your legs already straight when you place your feet on the roll, it's difficult – if not impossible – to properly engage the Shin Loop, particularly if your knees are already locked or hyperextended. This situation involves a pull through the gastrocnemius, without your being able to engage the Soleus. In this case, only the gastrocnemius is being stretched, and not very pleasantly for the knee!



## THE THIGH LOOP

The **Thigh Loop** addresses the misalignment of posture that comes from the heads of the femurs moving too far forward. With the Thigh Loop, we take the heads of the femurs back into alignment with the center of gravity through the legs. This does much to overcome tightness in the hips and lower back.

At the front body, the flow of energy through the Thigh Loop contributes to both the energetic lift that supports an open heart, as well as a grounding through the back body that gives a sense of ease and centeredness while reducing tension in the backs of the legs and lower back. At the back body, the Thigh Loop lessens the pull of the hamstrings that contributes to hyperextension of the knees, as well as to injuries to the hamstring attachments at the sitbones.

The Thigh Loop builds upon the actions of the Shin Loop, and the muscles involved in the two Loops overlap at the knee. Thus a good Shin Loop is part and parcel of a good Thigh Loop. With the Thigh Loop we pay attention to what is happening energetically at both the fronts and the backs of the thighs.

The Thigh Loop starts at the top of the thighbone in the core of the pelvis, where it meets the Pelvic Loop. When we activate the thighs at the front, the tops of the thighbones press back toward the back plane of the body. The Loop then flows downward through the hamstrings at the back of your leg, and then forward, releasing the top of your shin forward (via the hamstring attachments), looping back through the lift of the quadriceps (which cross over the knee, attaching at the head of the

shin)

The **Thigh Loop** works

1. in conjunction with the **Shin Loop** to counter the general tendency to lock and hyperextend the knees
2. in conjunction with the **Inner Spiral** to take the tops of your thighs back, bringing your hip joints in line with the center of gravity through your legs
3. in conjunction with the **Pelvic Loop** and **Outer Spiral** to lengthen and bring proper tone to the Psoas muscle, aligning the pelvis to bring proper support to the lower back



### THE INTIMATE CONNECTION BETWEEN THE LOOPS

**Between the Shin Loop and the Thigh Loop:** As we saw in the section on the Shin Loop, there is an overlap of both the quadriceps and the hamstrings at the knee — both of which attach to and move the head of the shin when bending and extending the leg. This means that the Thigh Loop affects the health of the knee, and works in close relationship with the Shin Loop. For simplicity, we can envision the Shin and Thigh Loops as intersecting in the knee joint; at the same time, an understanding of how the muscles overlap helps us to better understand how the Loops ‘mesh’ and interact.

**Between the Thigh Loop and Pelvic Loop:** By the same token, the muscles involved at both the front and the back of the Thigh Loop have strong attachments at both the front and the back of the pelvis, and so there is an intimate relationship between the Thigh Loop and the Pelvic Loop. The muscles of the thigh (hamstring and Rectus Femoris in particular) affect not just the position of the thigh in the hip socket, but the tilt of the pelvis as well — and thus

Though three of the four quadriceps muscles originate on the thighbone, the fourth — Rectus Femoris — originates on the lower part of the hip bone (below the ‘hip point’), affecting the tilt of the pelvis at the front body, and thus the Pelvic Loop.

can cause tightness in the hips and lower back.

## THE ‘BACK’ OF THE THIGH LOOP

The actions of the muscles at the front of the thighs are quite clear and tangible in the Thigh Loop — but what is going on at the ‘back’ of the Thigh Loop? There is a paradox at play that might be described as a ‘downward’ flow at the backs of the thighs.

As we saw in our discussion of hyperextension, it’s the pull of the hamstring at the back of the knee — specifically pulling at the head of the shin at the ‘inside’ of the knee — that pulls the knee into hyperextension. The Shin Loop resists this pull by balancing the energy between calf and hamstring. But the pull of the hamstring — which is often in the ‘wrong’ direction — also has to be dealt with.

The hamstring does engage with Muscular Energy; and though Muscular Energy is generally understood to draw from insertion to origin — which in the case of the hamstrings would be from their insertion at the back of the knee to their origin at the sitbones — the Thigh Loop actually directs the pranic flow differently through the muscle, flowing ‘organically’ from the sitbones toward the back of the knee, rather than ‘pulling’ muscularly in the other direction.

When practicing the Thigh Loop, you can both engage the hamstring and then direct the ‘flow’ of energy down *toward* the back of the knee rather than lifting the sitbones so much that the hamstring is pulling at the back of the knee. This ‘pulling’ can be seen in a pose such as Uttanasana or Prasarita Padottanasana, when a flexible practitioner does a ‘Swan Dive’ when bending forward — flipping the sitbones up so much that it creates not only hyperextension from the pulling of the hamstring at the back of the knee, but also progressively injures the hamstring attachments at the sitbones. A good Thigh Loop *reverses* this tendency by energetically drawing *downward* from the sitbones towards the knees, as energy draws *upward* through the thighs.

This action of the Thigh Loop happens in conjunction with the Pelvic Loop just as much as it complements the action of the Shin Loop. The Loops truly happen together — and no one Loop works in isolation from the others. Rather, the Loops ‘mesh’ to form lines of energy in the body because of the way the muscles overlap, such as the muscles at the back of the knee.

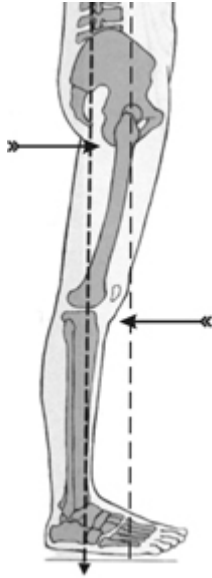
As we pointed out on the previous page, there is a fascial connection between the tailbone and sitbones, such that an action with one — as we saw in our discussion of Inner and Outer Spiral, in which lengthening through the tailbone influenced the sitbones to move down and forward — affects the other.

Because the hamstrings attach at the sitbones, the same is true for the Loops. When we practice a Pelvic Loop (to be discussed in the next section), the fascial connection from the tailbone through the sitbones influences the ‘direction’ of the flow of energy through the hamstrings. This in large part explains why — unlike the other Loops — the Thigh Loop and the Pelvic Loops ‘turn’ in the same direction. At the back body, the Pelvic and Thigh Loops come together to form a single grounding force of energy through the leg bones. If there were no such connection, what would happen each time we bend forward?



The major muscles at the back of the thigh that are principal players in the Thigh Loop actually attach to the sitbones and to the head of the ‘shins’ — Tibia and Fibula — and so affect the tilt of the pelvis as well as being responsible for the ‘pull’ at the head of the shin that affects the health of the knee. Which way the energy ‘flows’ at the back of the leg in the Thigh Loop overlaps and meshes with the Pelvic Loop and Shin Loop.

## 'Reverse' Thigh Loop



### Hyperextension of the Knees:

One can see how this is the very reverse of the Thigh Loop, with the muscles tightening and lifting up through the backs of the legs, while flowing down through the front toward the knees.

When the muscles of your thighs are not engaged in a balanced way and there is no attention to the Thigh Loop, the result is a 'reverse' Thigh Loop.

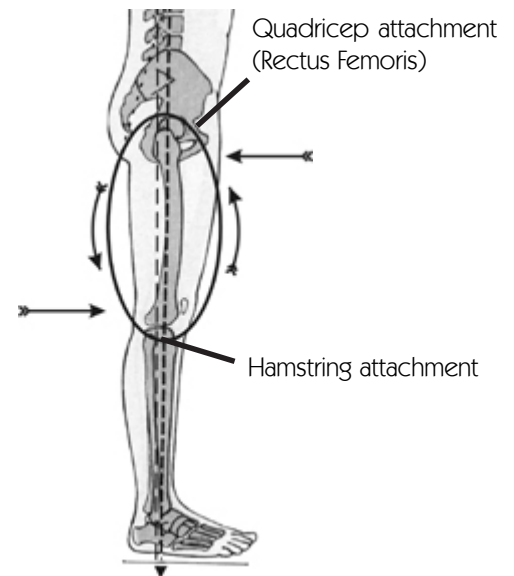
– **Reverse Thigh Loop:** first stand up and straighten your legs without engaging your quadriceps. The outcome is usually that your knees will lock and the tops of your thighs will move forward. This produces the reverse of a proper Thigh Loop — and this is the habitual pattern for many of us, which can involve both the 'upward' pull of the hamstrings at the back of the knee (leading to hyperextension) and even the 'downward' pull of the quadriceps (Rectus Femoris in particular) that hardens the groins and can tilt the pelvis forward, compressing the lower back.

– **Correct Thigh Loop:** now bend your knees and lift your toes to engage Muscular Energy in your feet and calves. Also firm and draw energy up through your thighs. If you find it difficult to engage your thighs, try to lift both of your feet off the ground simultaneously. Though it's unlikely that you'll levitate, the effort will itself produce a 'lift' at the fronts of your thighs,

drawing Muscular energy up into your hips.

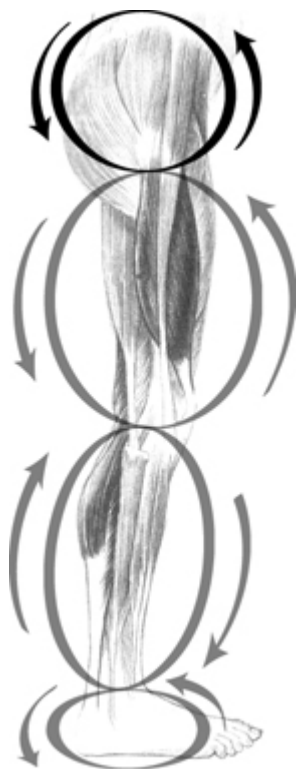
- As you engage your thighs, arch your lower back inward, moving the tops of your thighs back so that your weight comes more over your heels. This is the direction in which the Thigh Loop flows; you will also feel your groins soften and deepen with the Inner Spiral that almost inevitably accompanies the Thigh Loop.
- Also engage your hamstrings. To do this, isometrically pull back with one foot, and feel how the muscles at the back of that leg firm. Keep those muscles engaged, and do the same with your other leg. Feel how even though Muscular Energy is drawing up through your hamstrings, you can still 'loop' the energy down through the backs of your legs toward the knees organically by keeping your tailbone 'heavy' and lengthening downward, even as you extend your legs straight.
- Keeping your muscles engaged, continue to lengthen downward through your tailbone at the back body, and gently draw your lower belly in and up at the front body as you extend your legs straight. As you lengthen through your tailbone, you can feel your sitbones flow energetically downward as well, with the energy flowing through the hamstrings toward the backs of the knees. Feel how your hips remain centered over your heels as the Thigh Loop presses the tops of your thighs back in proper alignment and eliminates the 'pull' through the hamstrings that previously caused the knees to lock and hyperextend.

## Correct Thigh Loop





## THE PELVIC LOOP



The **Pelvic Loop** provides length to the lower back and support to the sacrum, addressing issues of the lower back. It is a vital foundation for the lift and opening of the Kidney Loop as well as the overall grounding and extension of the spine. It builds upon the actions of the Thigh Loop, and the muscles involved in the two Loops overlap at the hip joints. Thus a good Thigh Loop is the foundation for a good Pelvic Loop.

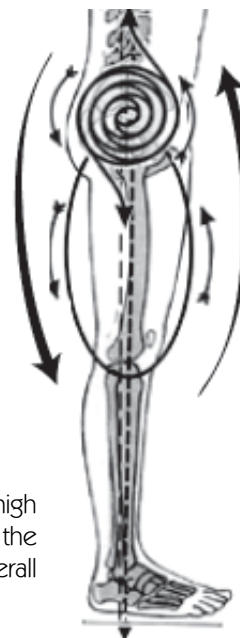
The Pelvic Loop is initiated at the back body by ‘scooping’ your tailbone. This action lengthens your lumbar spine downward through your sacrum, taking your tailbone down and forward toward your pubic bones; from there your lower abdomen draws in and up toward your navel.

To create the Pelvic Loop, firm the muscles at the tops of your buttocks and lengthen from the waistline downward through the tailbone, while drawing your lower belly in and up toward your navel, lifting and supporting your lumbar spine. In this way, energy flows down through the tailbone as it extends down and forward, toning the pelvic floor, and travels up at the front as a lift through the lower belly up toward the navel.

The **Pelvic Loop** works

1. in dynamic opposition to the **Thigh Loop** to create lift and support to the lower spine, particularly through the effect of the two on lengthening the Psoas muscle as well as the Rectus Femoris.
2. in conjunction with the **Outer Spiral**: the two are nearly synonymous, since both center around the action of the tailbone at the Focal Point in the Pelvis. The Outer Spiral initiates Organic extension down through your legs with the action of the tailbone, and has more to do with the flow of energy in the legs; the Pelvic Loop is the juncture between the lower and upper body, from which Organic Energy extends in both directions with the same action.

In most cases, adjoining loops run in opposite directions, like the meshing of gears. But the Thigh Loop and Pelvic Loop run in the **same** direction, dynamically opposed in a way that that creates a lift through the spine. This is because of the unique connections we just noted, through the hamstrings at the back body, and through the Rectus Femoris and Psoas at the front body. The two Loops coordinate into a larger or ‘Maha-Loop’ that creates lift at the front body and grounding through a downward energetic flow at the back body. There is a lift from the thighs that continues through the lower abdomen, ‘opening’ the space between the tops of the thighs and the hip points (ASIS) as the hip points lift, and an energetic descent from the lengthening of the tailbone



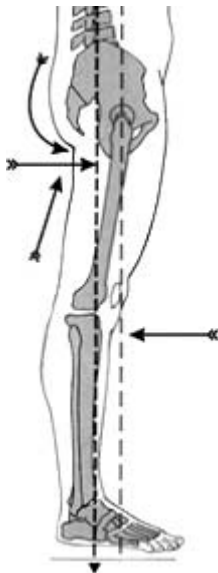
Unlike the other Loops, the Thigh Loop and Pelvic Loop flow in the same direction, creating an overall energetic effect.

through the hamstrings at the back body that allows a grounding through the heels.

## THE ACTION OF THE TAILBONE: 'SCOOPING' VERSUS 'TUCKING'

The interaction of the two Loops distinguishes the action of the Pelvic Loop from '**tucking**' the tailbone or pelvis.

1. The **Thigh Loop** takes the tops of the thighs (and pubic bone, through the action of the Inner Spiral) **back**, aligning the hip joints;



'Tucking' shoves the thigh-bones forward, hardening the groins

2. The **Pelvic Loop** takes the tailbone down and forward toward the pubic bone, while drawing the lower belly in and up toward the navel, lifting up and away from the thighs.

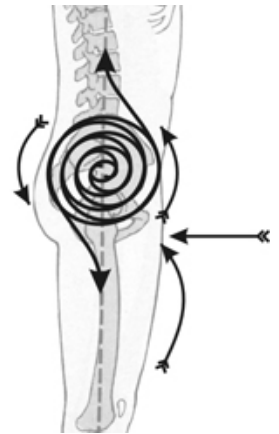
The two actions — 'scooping' and 'tucking' are very different, with very different results:

– '**Tucking**' the tailbone forces the tops of the thighs forward, hardening the groins as well as locking the sacrum from the lower buttock muscles gripping and squeezing in at the sitbones. This just produces a downward pull through your lower back without any corresponding upward extension through your spine, and reduces your ability to ground your energy downward through your legs.

– '**Scooping**' the tailbone with creates a lengthening from the waistline/top of the buttocks downward as well as taking the tip of the tailbone forward toward the pubic bone without a gripping at the lower buttock muscles.

This becomes the **Pelvic Loop** when the circle is completed by drawing the lower belly in and up toward the

navel, lifting and broadening the tips of the hipbones. The **Thigh Loop** (in conjunction with the **Inner Spiral**) keeps the tops of the thighs back and the sacrum open – and the lower buttocks soft rather than gripping – so that the spine can freely lengthen upward as you ground your energy downward through your legs. The end result is a kind of 'flywheel' of energy, throwing Organic Energy in both directions through the core of the body.



'Scooping' the Tailbone with the Pelvic Loop creates extension through the core of the body in both directions.

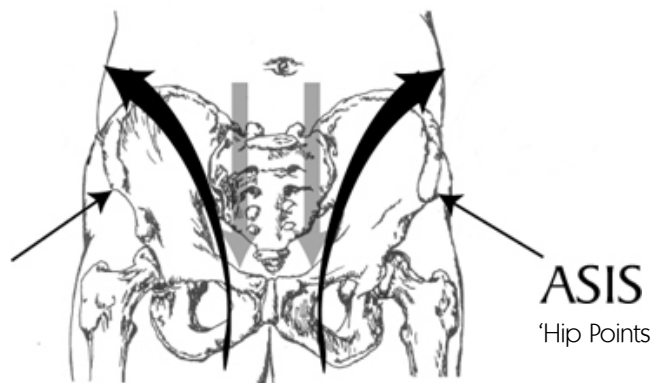
## CREATING THE PELVIC LOOP

When engaging the buttock muscles for the Outer Spiral and Pelvic Loop, the action comes from the top of the buttock muscles, just below the waistline at the ‘dimples’ located at the backside of the hipbones.

Place your thumbs there at the tops of the buttocks, finding the ‘dimple’ that is the back of the hipbone. Engage your buttocks to draw your thumbs down, and feel how your lower back lengthens as you draw from your waistline downward. Your tailbone moves down and forward (because of its ‘hooked’ shape) but without hardening at the bottom of the buttocks, and without pushing your thighbones forward or narrowing your sitbones.

This action initiates the Pelvic Loop, which at the front both tones and lifts through the lower belly and also creates a lift and a broadening along the inner edges of the hipbones, at the ASIS (or Anterior Superior Iliac Spine) – the ‘hip points’. In this way the **Pelvic Loop** creates a **lift and a broadening** at the front body *without* a narrowing or pinching in the back body at the sacrum.

Thus there are two sides to the Pelvic Loop – there can be a better lift and opening on one side than on the other, often indicating a difference of flexibility in the psoas muscles on either side of the spine.





## THE PELVIC LOOP PART 2

The Pelvic Loop is the midpoint between the lower and upper body, and influences the loops in both.



As with every loop, the Pelvic Loop has two sides – front and back. The Loop begins in the core of the pelvis and, although the Loops are always initiated from the back body (in this case, by scooping the tailbone), the actions involved in creating the Loop are in some cases felt more vividly at the front body.

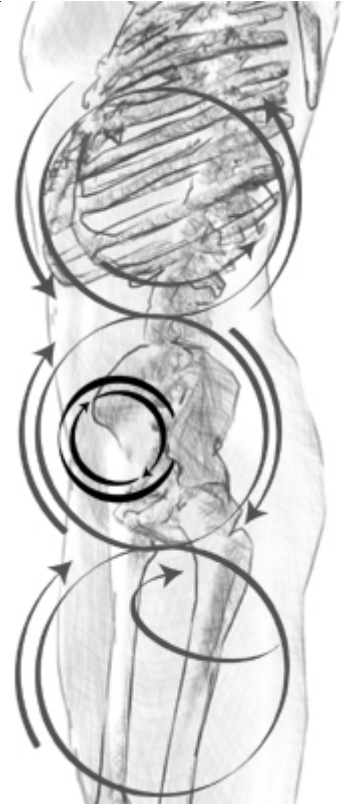
In the case of the Pelvic Loop, the action at the front body is to draw the lower belly in and up toward the navel.

This is easier to feel and to do in many poses – such as Uttanasana (Standing Forward Bend) – than to scoop the tailbone, though the effect upon the tailbone and sacrum is the same.

One way to visualize this is to think of the energy at the Focal Point as a **sphere** in the core of the pelvis – below the navel and in line with the top of the sacrum – rotating as shown in the graphic on the right.

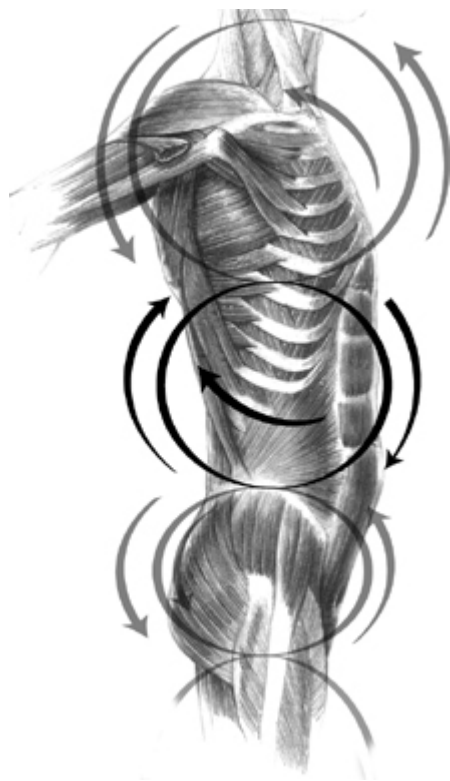
The attention given to the **lower abdominals** in the Pelvic Loop has the added benefit of clearly bringing them into play to support the **lumbar spine**.

The Pelvic Loop is closely connected to the **Kidney Loop** – in fact it's nearly impossible to do one without the other. The Pelvic Loop in conjunction with the Kidney Loop works to open the back body, supporting the lumbar spine against overarching as well as opening space for the movement of the diaphragm at the back body. The two loops together – Pelvic Loop and Kidney Loop – work to create Mulabandha and Uddiyana Bandha.<sup>14</sup>



<sup>14</sup> The action of the Pelvic Loop / Outer Spiral must of course be tempered by the Inner Spiral to properly align and tone the perineum – the muscles at the base of the pelvis.

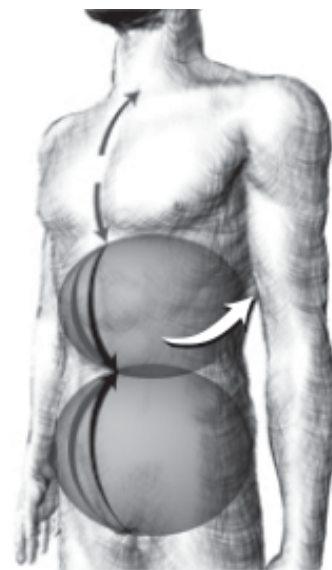
## THE KIDNEY LOOP



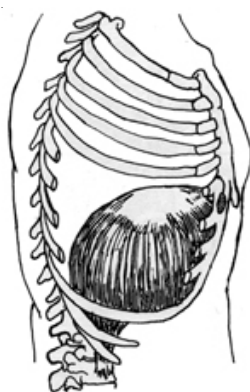
The Kidney Loop stabilizes the most mobile part of the spine, where we most often collapse and compress. The Kidney Loop is the subtlest and perhaps most challenging Loop to perform and to maintain, since it concerns the most mobile part of the spine. The Kidney Loop is important for stabilizing that part of the spine, for aligning the upper body along with the Pelvic Loop, and perhaps most importantly, for creating and maintaining space for the larger part of the **diaphragm** to function at its best.

The **Kidney Loop** relies upon the toning and lift to the lower abdominal muscles that begins with the Pelvic Loop, supporting the sacrum and lumbar spine. It moves back and up with the natural expansion of the diaphragm, taking the side ribs back and lengthening the side body up away from the hips at the waist, as well as lifting and expanding the back body in the area of the kidneys.

The other side of the Kidney Loop is at the front body, where the upper abdominals tone at the Solar Plexus and draw down toward the navel, providing the support for the opening at the back body.



The Diaphragm



The technical description of the **Kidney Loop** is that it begins in the core of your abdomen just below the navel, connecting with the lift created by the Pelvic Loop and moving up the lumbar spine from just below your kidneys to the base of your shoulderblades. From there it moves forward through the top of the diaphragm – at the base of your heart – to the base of your sternum. From there it flows down through the solar plexus toward your navel.

The **action** by which you create the Kidney Loop can vary depending upon the pose. Poses demanding more core strength such as Chaturanga

Dandasana and Inversions such as the Handstand require more active use of the abdominals to support the Kidney Loop; other poses such as backbends emphasize the actions at the back body more, coordinating the Pelvic Loop with the Head Loop to maintain the opening at the Kidneys.

1. **With the Breath:** Because the Kidney Loop is intimately related to the movement of the diaphragm in breathing, you can often connect with the Kidney Loop through the breath. Breathe into your back body, ‘puffing’ or expanding at the area of your kidneys with the bright, fresh energy of the inbreath. As you **breathe** into your back body, take your side ribs – just above your waist – back, and allow your solar plexus (the upper abdominals just below the base of your sternum) to soften and flow downward toward your navel. In many poses – such as Standing Poses – in which the lower body is weight bearing, the ‘active’ side of the Kidney Loop is at the **back body**, where you expand as explained above; the Solar Plexus at the front body more passively and organically softens downward as a result.

Notice how, while the **Pelvic Loop** creates a firmness and lift below your navel that supports the expansion of your upper body with the breath on the firm foundation of an upright spine, the **Kidney Loop** maintains both the softness and tone of your upper abdominals, allowing for the free movement of your diaphragm on all sides of your lower rib cage.

2. **Active Engagement at the Front Body:** in poses such as inversions — Handstand, Headstand and Pincha Mayurasana — in which the upper body is more weight bearing through the spine (also poses requiring a strong shoulder and chest opening), the pose can require that the **front body** at the Solar Plexus be more active, drawing the base of the sternum toward the navel. This engages the upper abdominals more strongly to support the spine in its extension against gravity, as well as supporting strong chest and shoulder ‘openers’ by anchoring the base of the sternum while the top chest lifts and opens. Particularly in poses where the lower ribs ‘poke’ or jut forward from an over-arching of the mid-back at the kidneys, the Kidney Loop is the best corrective.

The **relationship between the Pelvic Loop, Kidney Loop and Head Loop:** each supports and enhances the other, while their actions are balanced by the Thigh Loop and Shoulder Loop. In these cases the Kidney Loop can be initiated with a **subtle bow of your head to your heart** along with lengthening through the tailbone; these create a release through the back body that lifts and opens your midback with a feeling of both inwardness and expansiveness.

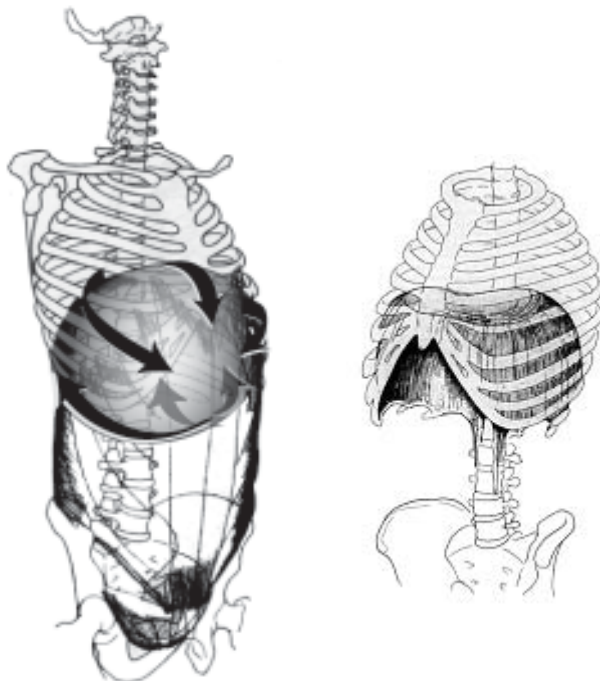
The **Kidney Loop** works

1. In conjunction with the **Pelvic Loop** to
  - a. align your torso with the central line of gravity through the core of your body,
  - b. extend your spine gracefully upwards while both maintaining the natural curves of your spine and supporting your lumbar spine
  - c. align your mid-body with your breath, providing for the fullest opening to the breath through the action of the diaphragm
  - d. create Mulabandha and Uddiyana Bandha, directing the prana upwards through the central channel of the body, centering and concentrating your core energy and bringing your mind to greater states of power and concentration.
2. In dynamic opposition to the **Shoulder Loop** to
  - a. Allow greater opening of your shoulders and upper chest by counteracting the tendency to overarch in your midback. Overarching both pinches your spine and puts too much pressure on your kidneys, particularly in poses like strong backbends.
  - b. Create greater opening to the breath in the upper body,
  - c. Create balanced alignment of your shoulder girdle and neck, in line with the center line of gravity through the core of your body.



The Kidney Loop marks a venture into the realm of the heart in hatha yoga, and exploration of the Kidney Loop in our practice does much to take us beyond both the merely physical / technical aspects and achievement-oriented tendencies inherent in a physical practice, and into a realm of deeper self-exploration and experience of feeling and self-understanding.

**Greater refinement** comes when we think of the Kidney Loop in terms of a **sphere**. As the base of the sternum flows or anchors downward, the side ribs also wrap toward each other as the back ribs expand. Thinking in terms of a sphere – both rotating forward and expanding – makes the Kidney Loop three-dimensional, fitting the three-dimensionality of the diaphragm.



If the Kidney Loop is thought of as a 'sphere,' its action fits the three-dimensional expansive influence of the downward movement of the diaphragm on the rib cage.

# EXPRESSING YOUR HEART

When moving into the upper body, the principles carry a more vivid emotional energy and express spiritual qualities and attitudes that profoundly affect our experience of the asanas. The meaning of ‘heart’ in Anusara Yoga encompasses the vast array of spiritual qualities, attitudes and virtues of the spirit that we express through our thoughts and actions, uplifting ourselves as well as those around us, reaching farther on a subtle level than most of us realize.

When later in this book we look at the Chakra system as a way of understanding how these spiritual energies are increased and expressed through our physical being, we’ll see how each area of the body is a locus of feeling – both limited and expansive – that can either bind us or set us free, depending upon our awareness and intention. Physical practice that works with these areas of the body, recognizing the concerns of each, is a way in which we can, as the Bhagavad-Gita puts it, “uplift the self by the Self” as we offer ourselves in our practice to realizing and sharing our own true greatness of Spirit.

To begin to look at this in terms of the Loops, we can say this so far;

The **Pelvic Loop** involves the effort to establish a feeling of full grounding and security through our foundation – whether through the pelvis itself when sitting, or through our legs when standing, with the help of the principles of the lower body.

The **Kidney Loop**, standing on the foundation of a secure sense of self, begins to express higher qualities of the heart as we relate to the world around us. It’s significant that the Kidney Loop is so closely related to the diaphragm, and that our physical heart rests upon and is supported by the diaphragm, like a jewel centered upon a pillow. The quality of the action of the diaphragm – its expansiveness, or conversely its limitation – has a direct effect upon the health and inner feeling of your heart.

It follows that the **heart** – in its larger sense – has **two aspects** that have to be in balance:

The energy of a ‘**great-hearted**’ or ‘**great-souled**’ (the literal meaning of ‘magnanimous’) person is expansive, generous and compassionate, rooted in a self-assuredness that one is unfailingly loved and supported by the universe – and so he or she **gives** of him or herself from that sense of inner wealth and worth. We recognize this energy as it is expressed through the **chest** – the literal expansiveness of the ‘heart.’ Yet when this energy is imbalanced, it shades into subtle forms of arrogance and ego that take too much credit, estimating one’s own worth too highly above others. This is a misunderstanding of one’s place in the universe.

The energy of a great-hearted person is at the same time **humble** in a way that honors and openly **receives** the love and support of the universe, and always remembers the true source of his or her inner wealth, which comes as a gift. That energy is expressed in a humble **bow**, in which the expansiveness of the chest is no longer prominent, but rather our **back body** is exposed with softness yet expansiveness, showing both gratitude and trust in the benevolence of the universe by allowing ourselves to be vulnerable by this act. When this energy is imbalanced, it shades into subtle forms of passivity, victimization and self-hatred that mistakes one’s own openness of heart as a kind of neediness coming from lack of self-worth. Again, this is a misunderstanding of our place in the universe, by which we think too little of ourselves.

The expression of a wise heart in any asana is a delicate and fully self-aware balance of these two energies, which is expressed in the balance between the Kidney Loop and Shoulder Loop. When the true balance is there, then our practice is neither an exercise in ego through a showy practice, nor in self-criticism through excessive and dry self-discipline.

Before proceeding to the Shoulder Loop, however, we need to look at a major muscle of the body that profoundly affects both the physical body on a very practical level, and the subtle body on an emotional level. The principles of Anusara Yoga demonstrate how hatha yoga can fully take into account and address the influence of this muscle – the **psoas** – on every level.





# THE PSOAS

The Psoas muscle lies at the center of the body and provides much of its core strength. The psoas literally pulls it all together – lower and upper body. It attaches at the inner thighs, ascends in front of the hip joints, scoops back behind and supports the abdominal organs, and attaches to the spine all the way up to the 12<sup>th</sup> thoracic vertebra. There the psoas inserts behind the diaphragm, where the trapezius muscle also attaches and spans the upper back all the way to the base of the head.

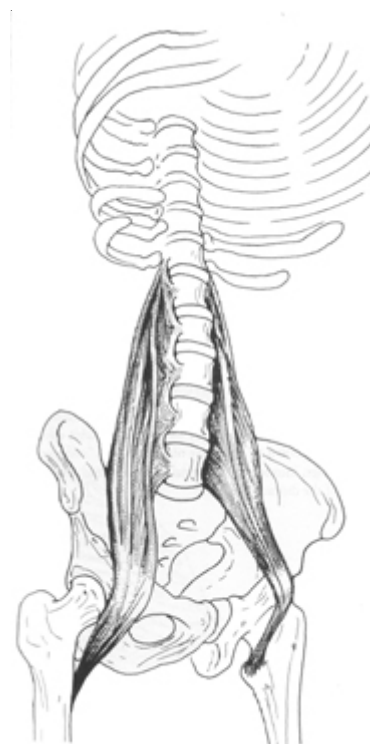
This is the central juncture between lower and upper body and is a point of balance in our energies emphasized through the Focal Point in the pelvis. In a very practical sense, a healthy use of the psoas – in the asanas and in life – is a concrete expression of our commitment to stand firmly on this earth as the foundation for our spiritual aspirations. By the same token, neglect for the health of the psoas in the form of bad alignment and habits of movement can lead to a host of problems, all of which are quite common in our culture.



## THE FUNCTION OF THE PSOAS

The psoas is a **hip flexor**; it draws your thigh upward, bending your leg at the hip to initiate a step when you walk. Paradoxically, the psoas functions at its best by lengthening and falling back against the spine. Conversely, if through bad alignment and action the psoas contracts and shortens, it has an adverse effect on your lower back, hips and pelvis.

With respect to **walking** in particular, we move from the core when a step is initiated not by your thigh muscles (e.g. rectus femoris), but by the psoas (in conjunction with the obdurators – small opposing muscles attached within the pelvis). As the psoas flexes the leg to swing it forward, it transmits the shift of gravity through the trunk of your body. The leg simply follows the shift, and in the process the psoas plays an important role in transferring weight through the trunk into the legs and feet.<sup>15</sup> Walking is just one example: in any **hatha yoga** pose in which the feet are at least part of the foundation, the psoas plays an essential role in grounding the body through the legs. Without properly aligning and working the pose through the Inner and Outer Spirals, the pose will lack power, lightness and integrity, as well as sacrificing many of its benefits.



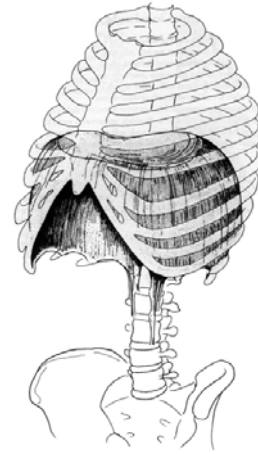
<sup>15</sup> The Psoas Book, by Liz Koch, p. 28 Hatha Yoga in the Anusara Style





The psoas is balanced by the **muscles of the lower back** – the erector spinae, which run along the sides of the spine in the lower back and have a reciprocal relationship with the psoas. When the psoas is tight, these muscles can't work as intended and become weak. When the psoas is released and at its resting length, the erector spinae are able to work and thus maintain their tone while supporting the weight of your rib cage at your lower back.

The psoas is also a **support structure** – like a guide wire – that stabilizes the spine and strongly influences the tilt of the pelvis – and from that the curve of the lower back. Its influence is especially evident in inversions, where the lower back overarches and is compressed (the classic 'banana') unless the psoas is properly aligned and engaged to provide the core strength of the body in the inversion. Balance through centering and extension of the spine in inverted poses such as full arm balance and headstand doesn't happen without the cooperation of the psoas.



### THE RELATION OF THE PSOAS TO THE DIAPHRAGM

The upper part of the psoas meets the diaphragm at the junction known as the solar plexus, which is sometimes called the 'abdominal brain,' where we experience our 'gut feelings' and is the center of personal power as expressed through will. The corresponding chakra is the Manipura Chakra located at the navel, whose element is fire (the 'fire in the belly') symbolized by a downward-pointing triangle. This fire – particularly as the gastric fire – is fanned by the breath with the movement of the diaphragm.

The psoas forms a kind of '**shelf**' within the pelvis that supports the abdominal organs from below as well; and so the health and suppleness of the psoas will affect the functioning of these organs, particularly by affecting circulation. Moreover, our emotional reactions translate into muscular responses in the psoas, which can tighten and pull at the lower back as well as limit the free movement of the diaphragm and dampen the 'fire.'

Other pelvic functions are also dramatically influenced by the psoas. Problems in women regarding menstruation and childbirth, for instance, are sometimes the direct result of tightness in the psoas.

## THE RELATION OF THE PSOAS TO THE ABDOMINAL MUSCLES

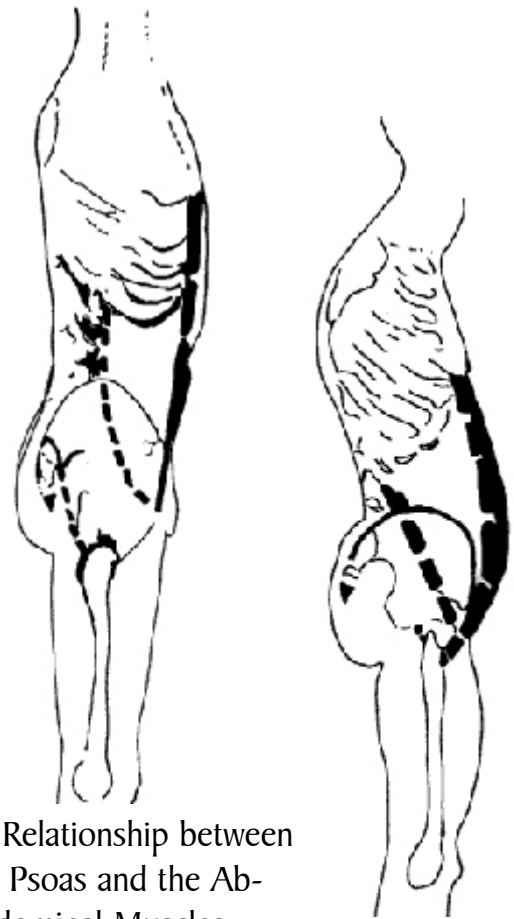
The psoas is a counterbalance to the abdominal muscles, and our abdominal organs ('belly') are cradled between these two. A proper balance between the two brings a sense of integrity to the trunk of the body. But the attempt to pull the belly in – through excessive strengthening of the abdominals – and expand the chest shifts our center of gravity upward into the chest and leads us, as Von Durheim puts it in Hara, The Vital Center of Man, to “swing between hypertension and slackness.”<sup>16</sup>

This is especially the case when the psoas gets weakened by exercises like sit-ups (old style). Such abdominal exercises can cause the psoas to shorten and become tense, pressing the inner organs forward. We compensate for this spilling-forward of the belly by tensing our abdominal muscles to suck it back in. This only causes greater tension, especially by limiting your ability to breath with your diaphragm. This use of your abdominals takes a great deal of conscious effort which, when released, leads to the other extreme – slackening of the abdominals as the psoas pushes the belly out while tipping the pelvis forward. Thus we swing between unhealthy tension and slackness without ever addressing the root cause – the psoas.

The psoas is also shortened and weakened by our sedentary lifestyle – sitting in chairs for long hours for our work, and even worse, car seats that place our knees higher than our hips, forcing our lower backs to round and our legs to turn out while we must work our legs and feet to operate the pedals for long hours, often under much tension from the pressures of heavy traffic and high speeds.

The forward-bending design of contemporary bicycles, particularly for long distance and competitive biking, has a similar effect. It forces the lower back to round, upsetting the natural support structure of the trunk of the body, while working the body hard through the repetitive, constant pumping action of the legs, involving the psoas each time you lift your thighs. Your lower back muscles can be weakened and strained by this over time – you find yourself dismounting your bike with a stiff back from the pull of your psoas and the demands on your lower back.

Forward bending postures in hatha yoga such as Paschimottanasana, when done too aggressively – particularly by using the psoas (albeit unconsciously –



Ideal Relationship between the Psoas and the Abdominal Muscles

Less than Ideal: the 'Pot Belly'  
tight Psoas pushing forward against the abdominals

it's too deep to feel) as well as the arms to pull oneself forward, can similarly lead to a sore lower back. Practice of the principles – particularly the Inner Spiral/Thigh Loop as well as the Shoulder Loop – go a long way toward producing a balanced use of the psoas, lower back muscles and abdominals.

## THE EFFECTS OF A SHORTENED

<sup>16</sup> Karlfried Graf Von Durkheim, *Hara, the Vital Center of Man*, Mandala Book/Unwin Paperbacks, London, p. 17

## PSOAS ON POSTURE

A shortened psoas manifests in an amazing variety of ways in the body, particularly because of the variety of ways in which we compensate for its effects according to our own lifestyle and habits.

In general, however, the psoas thrusts the pelvis forward, taking the hips forward of their proper alignment with gravity through the leg bones. Most often this leads to exaggerated curves in the spine, because the psoas tilts the pelvis forward. This can lead to:

- Lordosis – lumbar hyperextension (sway-back)
- Kyphosis – increased thoracic curve (rounded upper back)

### Effect Upon the Pelvis:

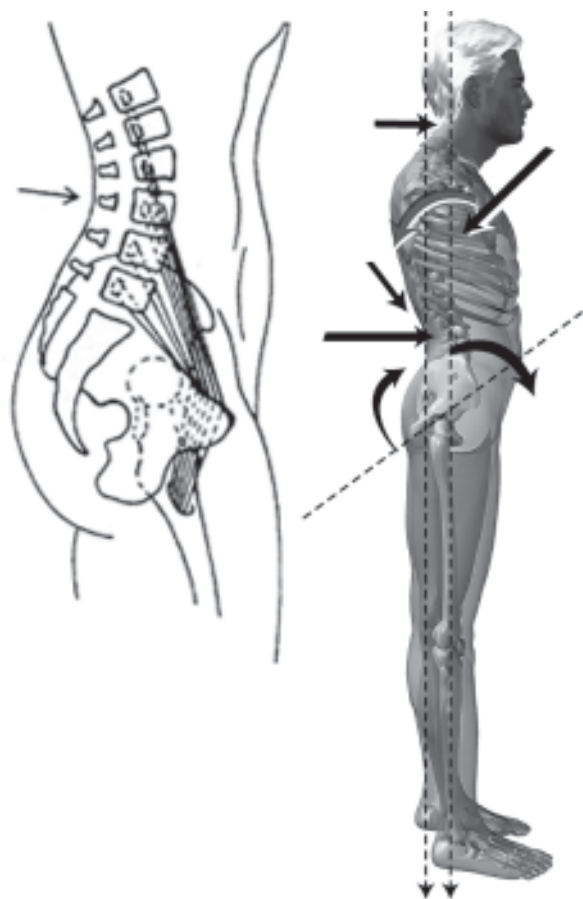
- **Forward thrust** of the pelvis: your hip joints end up forward of the line of gravity that passes through your legs.
- **Forward tilt** of the pelvis: your pelvis tips forward, increasing the curve of the lower back
- **Twisting** of the pelvis and spine: because the psoas can be – and quite often is – of different lengths on either side of the pelvis, this imbalance can twist your pelvis and thus twist the curves in your spine, contributing to the formation of a **scoliosis** of the spine.

### Effect Upon the Thighs:

- Because the psoas is a spiral-shaped muscle attaching at the inner thighs, tightness in the psoas can encourage the thighs to rotate externally — though tightness in the hip rotators and outer hamstrings (biceps femoris) exert a much stronger pull in this regard. Nevertheless, when there are imbalances on the two sides, there can also be differences in the rotations of the thighs, whether inward or outward – and a corresponding effect on the sacral joints. Lower back problems as well as pain in the sacral joints can be traced to tightness and imbalances in the psoas muscles.

### Effect Upon the Rib Cage:

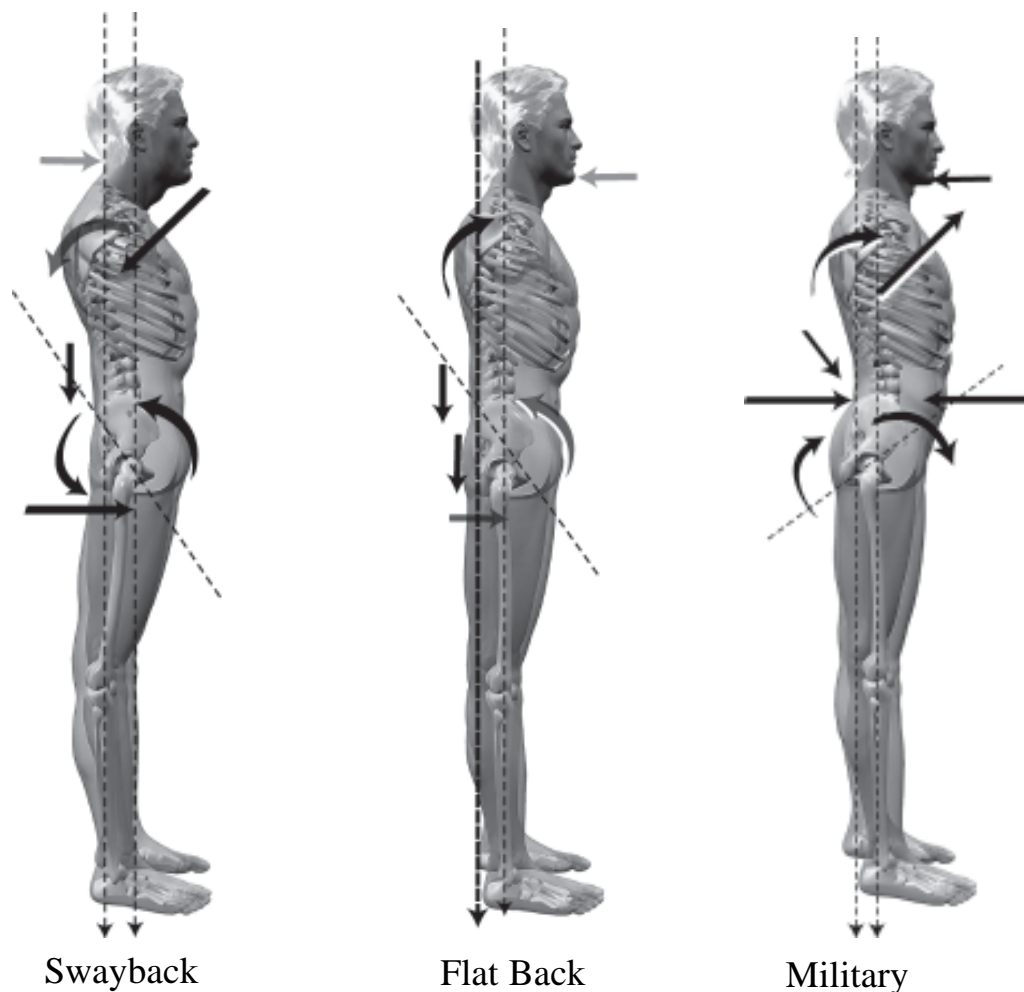
- The rib cage can also be thrust forward and pulled down, forcing chest breathing rather than proper diaphragmatic breathing, since the diaphragm can no longer descend at the back body because of the rib cage being pulled down and compressed there.



Lordosis-Kyphosis is of course not the only possible manifestation of a tight psoas. Compensation for a tight psoas can take a number of forms:

In each case the compensations take place to make up for the shortened distance between the tops of the thighbones and the front of the lumbar spine, as well as the general shift of the hips forward in front of the line of gravity that passes through the axis of the legs.

Better alignment does not come with *more* muscular effort. Instead, the psoas needs to be **released, lengthened** and properly **toned**. The hatha yoga poses, the interplay of the **Inner Spiral and Outer Spiral** – or from another perspective, the **Thigh Loop, Pelvic and Kidney Loops** – work to restore the psoas to its proper length and tone while bringing it to rest back against the spine. Then the power of the poses comes from the core of the body at the **Focal Point**, making the pose an integrated expression of inner strength and freedom. The Focal Point in the pelvis in particular expresses the freedom and power of the psoas to extend Organic Energy through the core of the body, bringing lightness and strength.

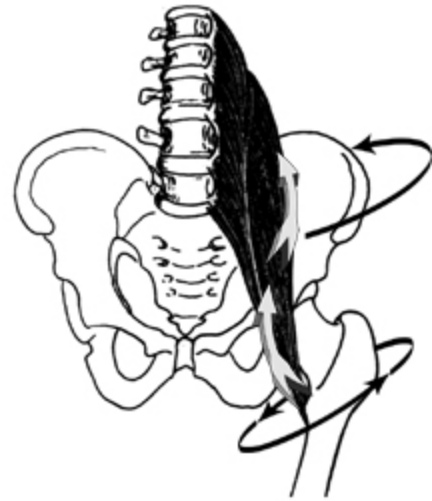


# SPIRALS, LOOPS AND THE PSOAS

## HOW THE PRINCIPLES WORK WITH THE PSOAS

In addition to **shortening** the distance between the lumbar spine and the tops of the thighs, a tight psoas also **rotates your Thighs Apart** and **pulls your hipbones back**, closing your sacrum. These actions, especially when external rotation of the thighs is overemphasized in yoga poses, contribute to sciatica and lower back pain. The **psoas** itself contributes to this problem because it is attached at the inner thigh and, when it is tight, pulls at the inner thigh, encouraging it to rotate externally while also pulling the thighbone forward in the hip socket.

Through practice of the spirals in the postures, we can reverse the negative effects of a tight psoas and unleash the core strength of the body. The **inner** spiral sets the attachment of the psoas at the inner thigh **back**, anchoring it at its root, while the **outer** spiral lays the psoas back against the spine, **lengthens** it and **opens** the hips while the inner spiral keeps the head of the thighbone properly seated in the joint.



The pull of a tight Psoas

## PARSVAKONASANA



For example, in Parsvakonasana, we often try to open our hips by rotating our thighs externally, pulling the top hip back – and as a consequence, simply jamming our hip:

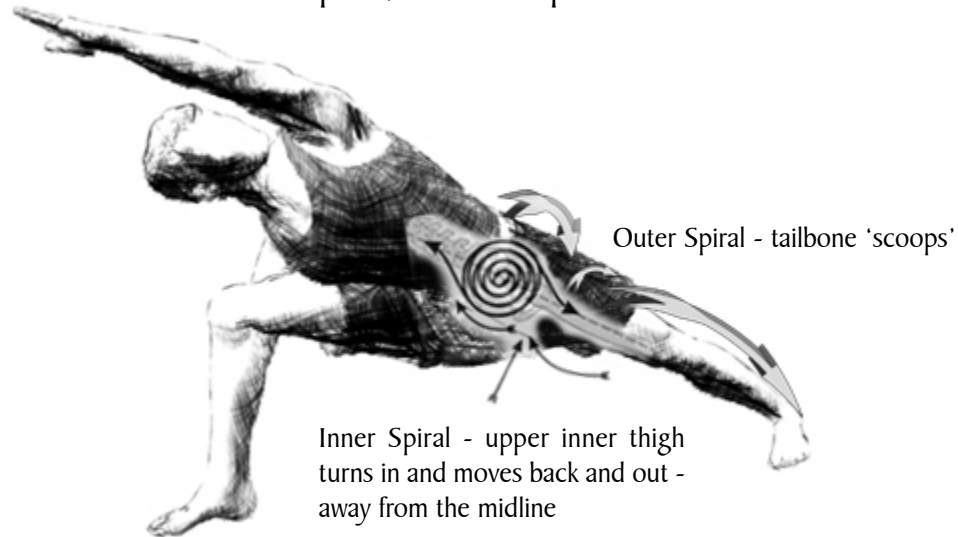
Practice of the spirals approaches the pose in this way:

- 1. Inner Spiral:** First spiral your back leg thigh inward; turn your upper thigh inward, taking your inner thigh back (deepening and softening at the groin) and away from the midline as you extend down to your inner heel. Your hipbone will wrap forward as your sacrum expands at your back.





## Outer Spiral / Pelvic Loop



- 2. Outer Spiral:** “Scoop” your tailbone with the outer spiral: firm at the top of your buttocks and extend through your tailbone, taking it down and forward as you draw your lower belly in and up toward your navel. Extend from that Focal Point in your pelvis down through your leg to your outer heel, as well as up through your spine to open your heart.

From this it's easy to see how the pose works to align and lengthen the psoas muscle when done with the actions of the Spirals.

Moreover, the hip opening that takes place is not caused by the external rotation of the thighs; instead the thighs rotate out as a *consequence* of opening your hipbones through the action of the outer spiral. The real ‘opening’ here is the lifting and broadening of the hipbones that takes place as you scoop your tailbone. When Inner and outer Spirals are balanced, the Pelvic girdle expands symmetrically, both front and back, as well as allowing for maximum range of motion in the hip sockets.





## THE FOCAL POINT REVISITED: FINDING YOUR CENTER

The **Spirals** are concerned with lateral movements – ‘expanding’ and ‘contracting’ or extending spirals – as they influence your pelvis, along with the extension that the Outer Spiral initiates through your legs and spine. Yet while the Outer Spiral initiates this extension, the power of this organic lengthening comes from a **Focal Point** in your pelvis.

Thus far we’ve said this much about the **Focal Point**: it is that central point into which **Muscular Energy** draws and collects, and from which **Organic Energy** radiates. The Focal Point provides a center or dividing point from which Organic Energy radiates equally through upper and lower body. When a pose is done with awareness of and extension from a Focal Point, the whole pose feels more integrated and extension in the pose is more equally distributed throughout the body.

As the epicenter of a pose, the Focal Point is also a **center of balance** that must be aligned with the central axis or center line of gravity through your body; otherwise, extension from your Focal Point will fail to ground your pose, robbing it of its qualities of steadiness, ease and integration.

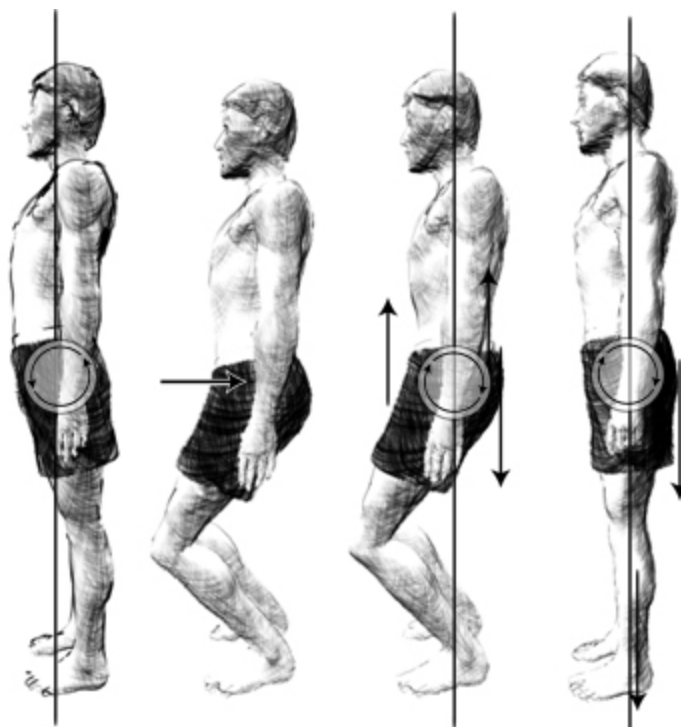
**Finding your Focal Point** means not just finding the place where muscular and Organic Energy meet, but also finding your center in relation to gravity. This brings a **greater feeling of union** in the pose; by aligning your Focal Point with your center of gravity, you are able to firmly root yourself in the world. This rooting is the indispensable foundation for all the positive qualities of the heart you can experience and express through yoga.

This is particularly important in the case of the **Pelvic Loop** because of the influence of the **psoas** on your relation to gravity. As we’ve seen, the psoas can cause our hips to move forward of our center of gravity, causing various kinds of collapse and hyperextension in our joints, as well as imbalances leading to weakness and hypertension in our body.

Our imbalanced stance can lead to a subtle feeling that we are ‘holding up the earth,’ rather than that the earth is supporting or holding us up, all because we set the center of gravity of our upper body apart from the line of gravity through which we ground into the earth at our foundation. The resulting physical feeling of separation or of drifting from our foundation can lead to an emotional feeling of separation and drift – which is the primary form of ‘ignorance’ or *avidya* that yoga seeks to overcome.

A **simple exercise** for realigning the pelvis – and psoas – with our center of gravity, and thus finding our true Focal Point, is this:

1. Bend your knees and move your hips back so that you feel more weight going down through your heels.
2. Imagine your tailbone is very heavy and is being drawn downward by gravity. Don’t make any conscious effort to adjust your hips, but simply imagine your tailbone dropping straight down as if attached to a plumb line, and feel your spine gently lengthen downward as your hips draw into place over your feet.
3. Keep imagining that your tailbone is heavy as you straighten your legs. Feel how there is a corresponding lift in your lower belly; it draws naturally back toward your spine and up, balancing the downward lengthening of your tailbone.



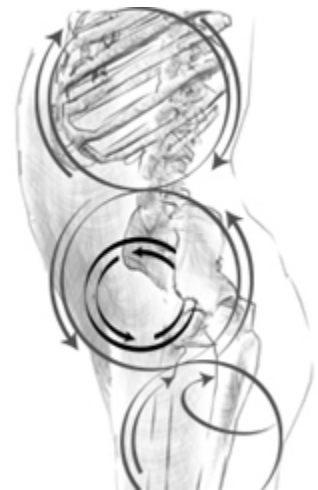
This is a more passive exercise of experiencing the Pelvic Loop with the help of gravity. See how you may be more aware of a center of power in the core of your pelvis around which these actions of the tailbone and lower belly revolve. This center is the Focal Point in the Pelvis, your center of gravity and of action.

Moreover, this naturally and effortlessly aligns and extends your psoas in its proper relation to your spine and to gravity. Coming back to your center can create a natural release and extension of your psoas; misalignment with gravity – setting yourself apart from your world – creates a vicious cycle in your psoas that only aggravates the problem, both physically and spiritually.

## ENVISIONING THE FOCAL POINT

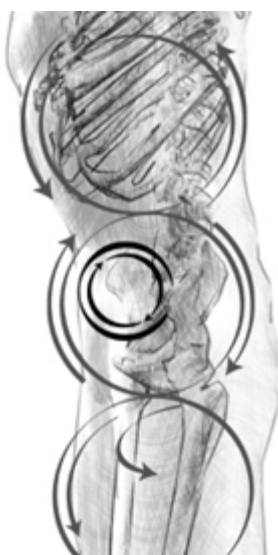
When centering the actions of the Pelvic Loop in the Focal Point, a deeper way of envisioning the energy of the Pelvic Loop – one which connects more closely with the action of the psoas – is to think of the Focal Point as a sphere of energy at the core of the pelvis that has a rotation corresponding to the Pelvic Loop.

The **misalignment** resulting from a tight psoas can be thought of as a forward rotation of this sphere at the Focal Point - where the psoas pulls forward at the lumbar spine, resulting in the classic ‘pot belly.’



‘Pot Belly’

Forward Rotation of  
Pelvis



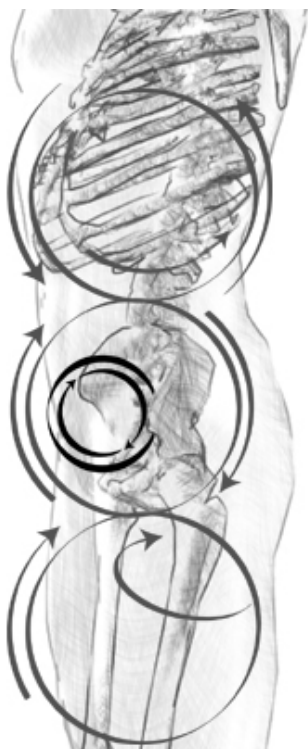
Overcompensation  
Hardening and Hypertension

**Overcompensation** for the ‘pot belly’ would be to pull the belly in using the abdominals. Yet as a hard abdominal action, this ‘tucks’ the pelvis, pushing the thighbones forward, undoing both the Inner Spiral and Thigh Loop. The result is a hardening at the lower back as well as at the groins, hypertension in the abdominals, and constriction of the ability of the diaphragm to move.

Although ‘sphere’ at the the Focal Point is rotating in the right direction, corresponding to a good Pelvic Loop, what went wrong? Because the compensation was simply an aggressive muscular action rather than a fundamental realignment of the Focal Point with gravity, the action still led to an imbalance.

**Proper alignment** begins with aligning the Focal Point with gravity. Because the misalignment of the hips most often comes from the influence of the psoas, the **Inner Spiral** (and Thigh Loop) takes the tops of the thighs back, aligning the hip joints with the center line of gravity through the legs and brings the Focal Point into its proper relation with the center line of gravity.

Here the rotation of at the Focal Point comes as much from alignment with gravity as it does from muscular action; it strikes a balance between **allowing**

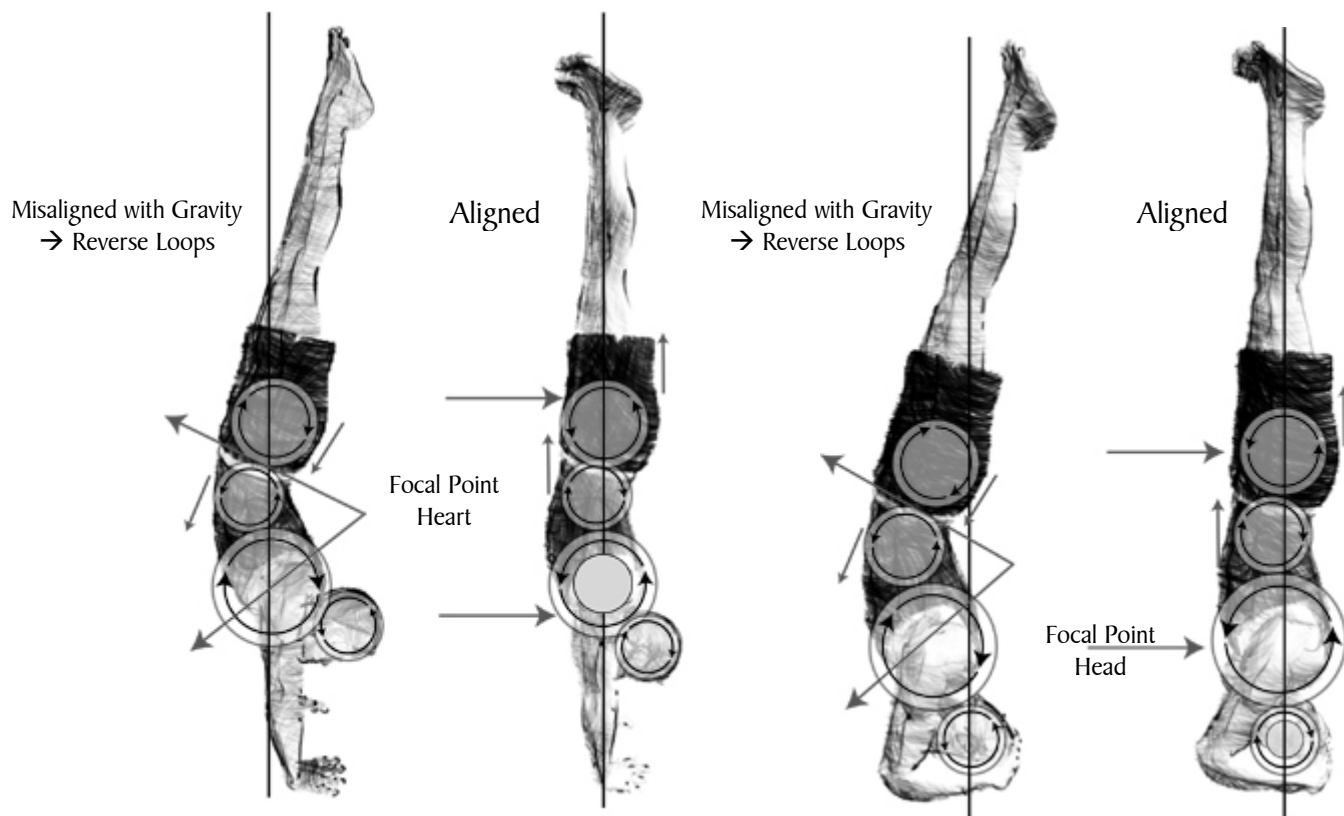


the body to find its natural alignment – with the proper curves in the spine – and actively **supporting** that alignment through muscular and Organic Energy.

In the previous exercise, bending your knees and taking your hips back provided the action of the Inner Spiral that allowed you to align yourself better with gravity. In **active hatha yoga poses** (even in Tadasana) Muscular Energy and the Inner Spiral bring you into that alignment, drawing energy into your Focal Point and aligning it with gravity, so that with the Outer Spiral / Pelvic Loop you may extend organically from that Focal Point.

How we envision the Focal Point as a sphere of energy simply illustrates how Organic Energy expands and expresses itself through the Loops, beginning with the closest Loop, the Pelvic Loop.

The **same task** of finding our center repeats itself with each of the **three Focal Points** in each of their corresponding classes of poses; finding your center involves aligning your Focal Point with your center line of gravity while working the corresponding Loop in the right direction. With this, all of the Loops at the other Focal Points snap into place and work properly, aligning the whole body as it extends fully through its core.



# THE SHOULDER LOOP

## ‘OPENING’ THE SHOULDERS

The whole idea of ‘opening’ our joints – whether the hips or the shoulders – is rather unique to yoga, yet this has an important structural purpose. Think of the torso as a flexible rectangle with the shoulder and hip joints as its ‘corners.’ As weight is borne by the arms and legs, these “corners” distribute that weight through the body along the strongest lines of force. If the strain is too much, or if a given joint is imbalanced so that the weight is not distributed properly, the joint can suffer damage, and the structure of support in the torso can suffer as well, such as the curvature of the spine in cases of scoliosis.

Our treatment of the principles of the lower body centered on the support that the hips provide for the spine through the pelvic girdle. In the upper body too, the spine is brought into relationship with the shoulder joints through the structure of the shoulder girdle, which act as a stabilizer for bearing weight. The shoulder girdle is shaped and functions like a yoke, which extends the shoulder girdle outward to help you carry more weight through your arms with the support of your spine. Alignment of your shoulder girdle is vital not just to the health of your shoulder joints, but to the health of your spine.

Your shoulder joints are ‘**open**’ when the structure of your shoulder girdle supports the natural curve of your spine, and the muscles of the shoulders are conditioned to bring the greatest mobility and resilience to the shoulder joint as well as maintaining freedom from tension by balancing the tone of the muscles on all sides of the joint.

The most obvious example of when this is *not* the case is when one has ‘rounded’ shoulders – the shoulders are rolled forward and down, with tightness in the muscles at the fronts of the shoulders that strains the neck and upper back muscles. This tightness interferes with the work of organs such as the lungs and heart. Moreover, the arms have far less range of motion, and the shoulders are far more susceptible to injury.

So we can define the shoulders as being ‘open’ when the following two elements are present:

### PROPER ALIGNMENT

The bones of the joint are aligned when there is **ideal placement of the bone** in the joint, with an **ideal orientation** of its supporting structure relative to the spine.

- All too often because of misalignment of the shoulder girdle or pelvis, the head of the armbone or thighbone rubs against the side of the joint. This affects circulation and the flow of energy through the joint, while wearing down the connective tissues in the joint and injuring the surrounding muscles.

### BALANCED MUSCULAR ACTION:

There is balanced muscular action when there is **equal strength and tone of the muscles on all sides of a joint**, which keeps the bone aligned and the joint stable, allowing full range of motion.

- The muscles surrounding the joint have the job of keeping the bone in its proper place. In an imbalanced or misaligned joint the muscles have a harder time doing this. Their response is usually to stiffen, hardening the muscle on the short side to hold things in place and stabilize the joint – which has the effect of further weakening the opposing muscles on the other side of the joint. This leads to a vicious cycle in which alignment – i.e. ‘posture’ – gets even worse, creating further cycles of stiffness and deterioration in the muscles.



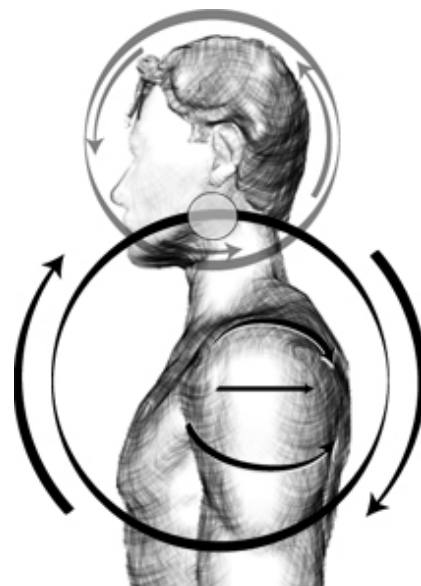
# THE SHOULDER LOOP

The Shoulder Loop actually serves two distinct functions.

First, it serves to align the upper body — where people often slump — with the central axis of the spine, allowing the chest to open to the breath and the head to balance on the support of the spine without neck tension.

Second, it serves to align the arms with the shoulder joints and to stabilize the shoulder girdle (shoulderblades and collarbones) to give maximum range of motion to the shoulders without chronic tension or injury to the shoulders or neck.

The shoulders are incredibly mobile joints, and people tend to have more issues and injuries with this part of the body than any other.



## BASIC POINTS FOR ALIGNING THE SHOULDERS

At its simplest, the actions of the Shoulder Loop can be summarized in three basic points that concentrate on the basic actions of the shoulders and shoulder girdle alone, and which address the form and placement of the arms and shoulders.

### 1. COLLARBONES SQUARE

Create lift and **length** through your **side body** to bring your **collarbones square**, i.e. level with where they attach to the sternum at the base of the throat.

### 2. HEADS OF THE ARM BONES BACK

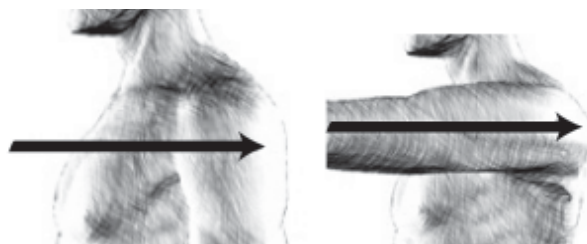
Take the **heads of the arm bones back** (i.e. toward the back plane of the body), setting the heads of the armbones deeply into the shoulder joints. This, as we will see, involves Muscular Energy with an ‘Inner Spiral’ of the arms.



### 3. EXTERNAL ROTATION

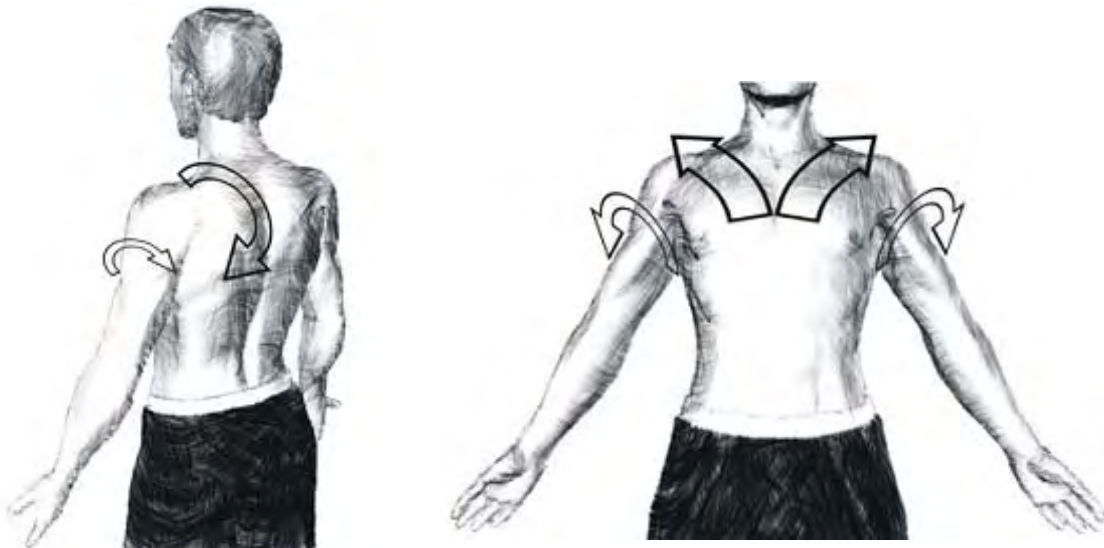
Every shoulder action also involves an element of **external rotation** or ‘**Outer Spiral**’ of your upper arm bones (from outer bicep to outer triceps). Different arm positions relative to the central axis of the body will give a different *feel* to this rotation, but the rotation itself is in every case the same.

This external rotation or Outer Spiral is *distinct* from the Shoulder Loop itself, though they are nearly simultaneous. As we will see, this external rotation of the upper arms is actually *not* a *cause* of the Shoulder Loop, but is instead an *effect* or consequence of the actions of the Shoulder Loop; yet in learning the actions, it's most often helpful to do the external rotation in order to *feel* something of the



Shoulder Loop. Once the relationship is understood, then the third action becomes *not* just an external rotation *followed by* the Shoulder Loop. Instead we make the connection between the engagement of the **Outer Spiral**, drawing along a **specific line of energy** through the arms into the shoulder blades and heart, with the full manifestation of the **Shoulder Loop** itself, which **involves far more than just the arms and shoulders themselves**.

The external rotation ‘becomes’ the Shoulder Loop once we feel how these actions of the arms and shoulders manifest as an ‘opening’ of the heart (i.e. the upper chest). With that experience, we understand how the **Shoulder Loop** is the organizing principle for all of the actions we just listed, integrating them in a single action.



The Shoulder Loop energetically integrates the three actions of the shoulders to align and ‘open’ the shoulder girdle and top chest, opening the space of the heart.

In simple terms, in the **Shoulder Loop** itself, there are **three actions to the shoulder blades**:

1. The shoulderblades draw ‘down’ the back (i.e. toward the waistline).
2. The shoulderblades firm or press into the body, with the lower tips of the shoulderblades pressing in toward the bottom of the heart, lifting and broadening the top chest as the collarbones lift and roll back.
3. The shoulderblades broaden apart laterally without rounding the shoulders forward.

#### 4. THE SHOULDER LOOP

In the full Shoulder Loop, these actions also have an effect on the alignment of the head and neck, and the opening of the throat. With these actions of the shoulderblades, the upper chest lifts and opens, taking the head back at the root of the palate. This aligns the head and neck with the central axis of the body.

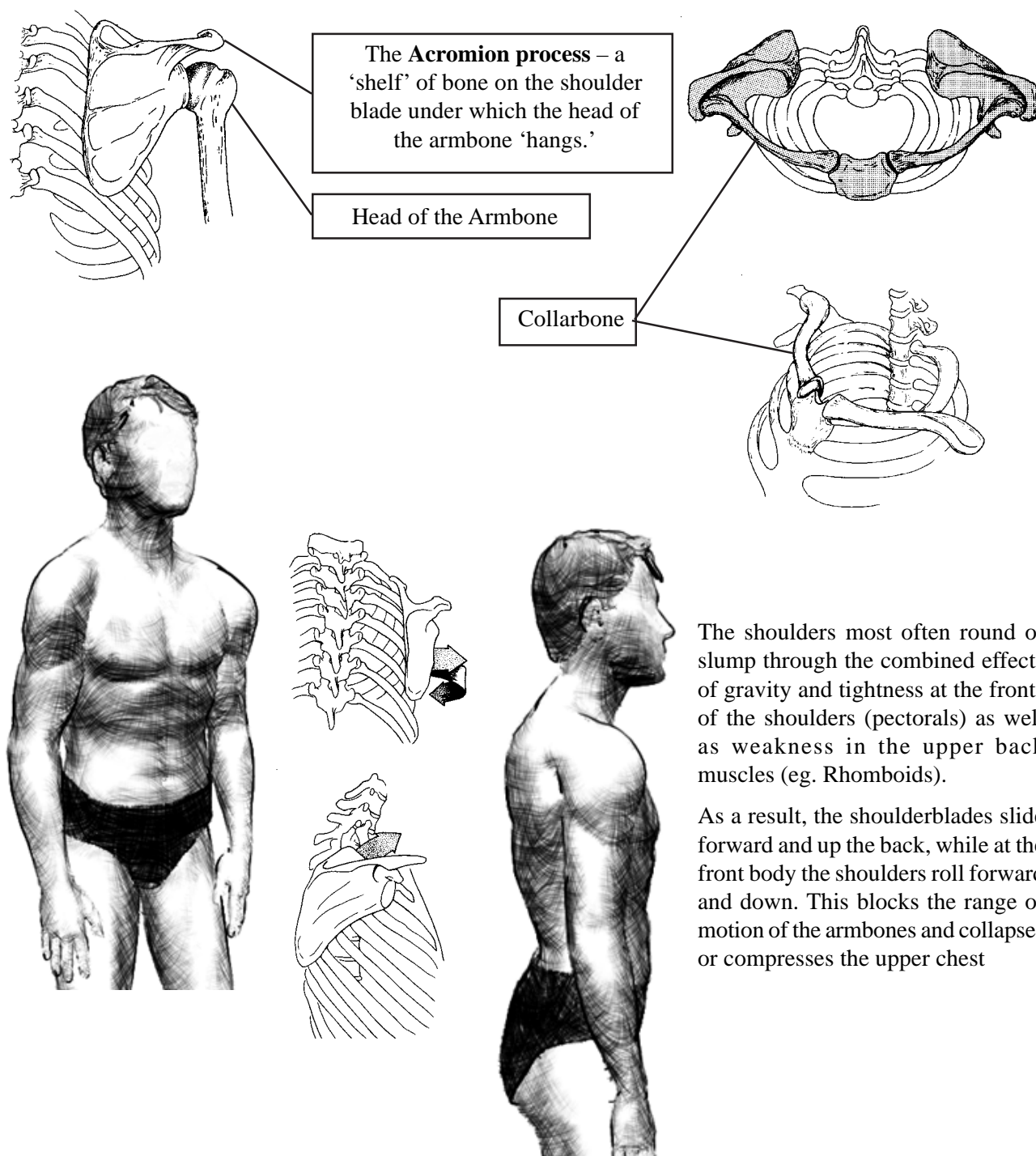
When the shoulderblades firm into the body and the lower tips of the shoulderblades press in to lift the heart, the upper chest lifts and opens, taking the head back at the root of the palate, aligning the head and neck with the central axis of the body. The **Shoulder Loop** is the organizing principle for all of the actions we just listed, integrating them in a single expression of the expansive pulsation of the heart.

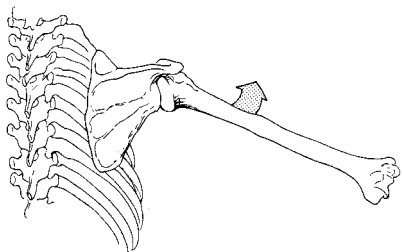




# HOW THE SHOULDER JOINTS GET 'BLOCKED'

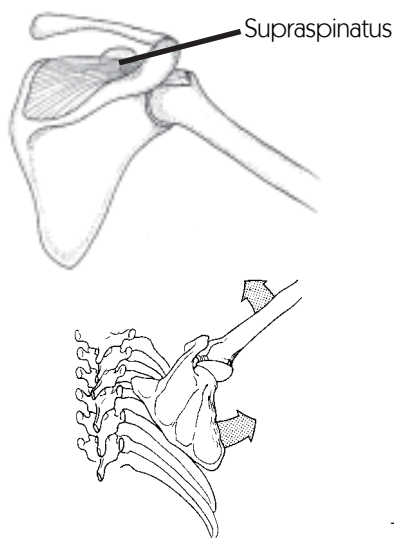
To understand the influence of these spirals on the 'opening' of the shoulders, it's helpful first to look at the structure of the shoulders and how the range of motion in the shoulders can be affected by their alignment — or misalignment. The shoulders get 'blocked' most when the shoulders are rounded forward. This can be the case regardless of whether the shoulders are dropped like coathangers, or hunched up toward the ears like earrings; in either case, the head of the armbone is essentially blocked by the acromion process.





When the Acromion process moves forward and down with the shoulderblade, it blocks the free movement of your arm.

Moreover, repetitive movement can irritate and injure the **Supraspinatus**, the rotator cuff muscle used to lift the arm.

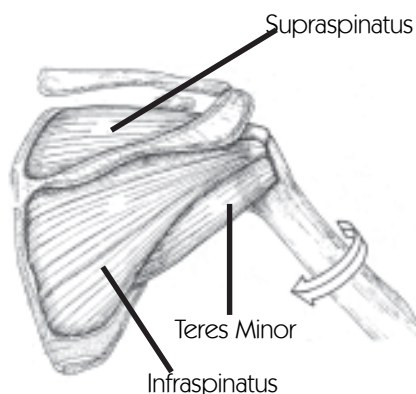


Your shoulderblades 'wing out' when the movement of your armbone is blocked. This shows weakness in the Teres Muscles as well as the Latissimus Dorsi.

When the shoulderblades slide forward when the shoulders round, the Acromion process moves forward to block your attempts to lift your arm; as a result, you feel pinching and jamming in your shoulder. When repeated enough, this wears at the rotator cuff muscle used to lift the arm — the Supraspinatus — leading to irritation and injury to this muscle. The rotator cuff muscles and their actions are described below.

Moreover, when extending your arms overhead as in Downward Facing Dog Pose, your shoulderblades can 'wing out' to the sides excessively, and the upper inner corners of your shoulderblades begin to pinch at the upper back, creating tension and blocked energy in both your upper back and neck.

All of these problems — the rounding forward and slumping of the shoulders, the pinching at the top or inside (at the front) of the shoulders, and the 'winging out' of the shoulderblades that accompanies these symptoms when taking your arms overhead — arise both from tightness at the front body (notably in the pectorals as well as deeper muscles) and weakness in a number of muscles, both deep and closer to the surface, in the back body. These latter muscles have everything to do with the principle actions of the Shoulder Loop, involving both the external rotation of the upper arms and the action of the shoulderblades on the back.



The Deeper Muscles of the Rotator Cuff at the **back** body — here the **Teres Minor** and **Infraspinatus** — contribute to the external rotation of the arm, connecting the movements of the upper armbone to the shoulderblade itself. The stronger 'surface' muscles — the rhomboids, trapezius and so on — engage the shoulderblades to the back body.



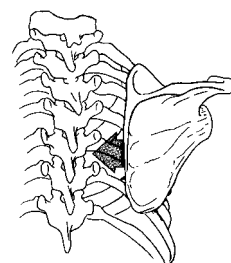
The Deeper Muscles of the Rotator Cuff at the **front** of the shoulderblade — here the **Subscapularis** — rotate the upper armbone inward. When this is chronic due to tightness (as well as weakness in the external rotators) it can lead to rotator cuff injuries. The Shoulder Loop prevents this through a combination of strengthening and opening through external rotation that tempers this.



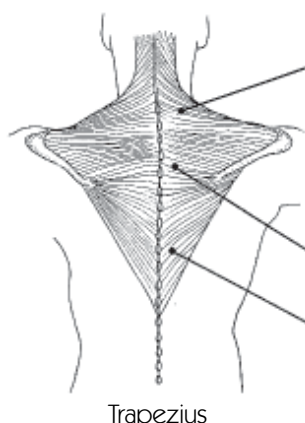
## ‘OPENING’ THE SHOULDERS

To ‘open’ the shoulder joint, the shoulderblade needs to draw in toward the spine and downward. This rolls the Acromion process back and out of the way, so that as you rotate the upper arms externally, the armbones ‘clear’ the joint and have greater freedom of movement. Because of the connection of the collarbones to the Acromion process, this action also rolls the collarbones back, opening the top chest.

The stronger surface muscles — notably the Trapezius and Rhomboids, as well as the contributions of the Latissimus Dorsi — work to bring the shoulderblades into their proper position on the back, providing stability. The Trapezius and Rhomboids draw the shoulderblades ‘flat’ on the back; the Latissimus provides the ‘broadening’ of the back body, so that the shoulders are not ‘pinched’ back.



The first action of drawing the head of the armbone back into the joint with Muscular Energy also firms the shoulderblade into your back, drawing it toward the spine. This action draws the Acromion process back, aligning and stabilizing your shoulder joint. Rhomboids and Trapezius



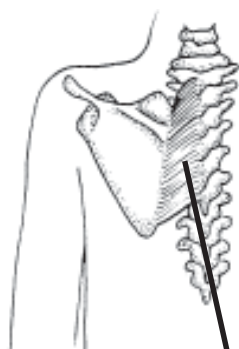
**Upper Trapezius:** adducts (draws toward the spine) and rotates shoulderblades (upper corners toward each other), as well as flexing and rotating the neck.

**Middle Trapezius:** adducts and slightly elevates shoulderblades (moves upward toward the neck)

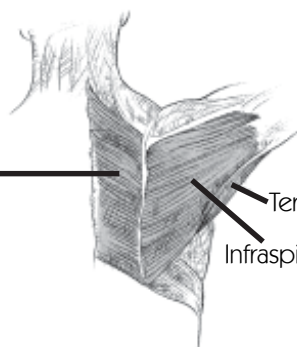
**Lower Trapezius:** rotates the shoulderblades — lower tips press toward the heart — and helps maintain extension of the spine.

Trapezius

The **Rhomboids** (beneath the Trapezius) work to adduct or draw the shoulderblades toward the spine, linking this action to the shoulder through the Infraspinatus and Teres Minor.

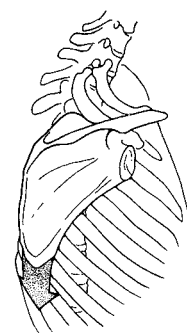


Rhomboids



Teres Minor

Infraspinatus



The second action is to draw the lower tips of your shoulderblades down your back, which both opens the chest and rolls the Acromion process back, ‘clearing’ the shoulder joint for the movement of the armbone.

Lower Trapezius, which also assists in the extension of the spine with the Shoulder Loop.

The organic expansion or ‘broadening’ of the upper back that completes the Shoulder Loop is thanks in part to the Latissimus Dorsi



Latissimus Dorsi

# THE UNIVERSAL PRINCIPLES APPLIED TO THE SHOULDERS

**1) Set your Foundation & Open to Grace:** soften your heart, smile with your eyes; soften as you breathe in, and allow the natural expansion of the breath to free your upper chest and shoulders and to brighten the light of your inner body.

## **2) Muscular Energy:**

- a. Firm the muscles of your arms, hugging the muscles to the bones. **Draw** the energy of the muscles from your fingertips all the way to your shoulder blades.



- b. As you draw Muscular Energy up your inner arms, lengthen upward through your side body, drawing up toward your armpits to lift or 'shrug' your shoulders away from your waistline until your **collarbones** are level.

## **3) Expanding Spiral:**

Take the heads of your **arm bones back** toward the back plane of your body. As you engage, you'll feel your **shoulder blades** firmly into your back, and a squeeze between the upper inner corners of your shoulder blades

You'll feel a corresponding expansion at your midback, and so the spiraling of the arms involved in this action is sometimes called and **Expanding Spiral**; at the same time, the lower tips of the shoulder blades move apart or 'wing out,' broadening the midback. Note that **this 'squeeze' between the shoulderblades is not the Shoulder Loop!** It is a muscular action that *prepares* for the Shoulder Loop — the Shoulder Loop will bring a broadening at the front as well as the back of the body, not a 'pinching' between the shoulderblades!



#### 4) Contracting Spiral and Shoulder Loop:

The **Shoulder Loop** naturally *follows* from drawing Muscular Energy into the shoulderblades along with an external rotation — (while maintaining the Muscular Engagement of the Inner Spiral) — with the understanding that there is *more* to the Shoulder Loop than just this Outer Rotation. The effect of the Shoulder Loop as a whole is felt more in the upper body, in terms of what happens in the chest, collarbones, neck and throat.

With this action, the inner corners of the shoulderblades in the upper part of the back (near the neck) broaden apart; at the same time, the lower tips of the shoulder blades draw closer, narrowing the midback. *Because* your midback narrows with this action — in preparation for organic extension and expansion — the outer spiral is sometimes called a **contracting spiral**.

The order of action, then, is Muscular Energy — Expanding Spiral — Contracting Spiral — Shoulder Loop:

The energy of the Contracting Spiral rotates the upper arm externally while firming the outer edges and bottom tips of the shoulderblades into the back. With the Contracting Spiral, the upper arm rotates from outer bicep to outer tricep.

As you engage, you'll feel your top chest broaden across the collarbones. The upper inner corners of your shoulderblades (which squeezed in with the Expanding Spiral) will broaden apart as the lower tips firm in toward your heart.

From the combination of the two spirals the Shoulder Loop naturally flows with the lifting and blossoming of the heart. But as we suggested earlier, the Shoulder Loop is more than the sum of these parts, just as the Pelvic Loop is more than the sum of the Inner and Outer Spirals of the lower body.





5) **Organic Energy:** extend and expand from the Focal Point in your heart out through your arms to your fingertips. Without losing the firmness of your shoulderblades on your back, let your upper chest and shoulders expand from within with this softening, so that your shoulder blades slide apart as your upper chest — back and front — broadens. **Balance** the **inner and outer spirals** of your arms to keep your arm bones centered and secure in the joints as you expand from your core at the Focal Point.



The overall effect of this Shoulder Loop is to expand the ‘heart’ at the front body, while firming and engaging the muscles of the upper back in the back body.



## THE ACTIONS OF THE SHOULDER LOOP



Because of the close relationship between the muscles of your neck and those of your upper chest and shoulders, the **Shoulder Loop** affects your neck, as well as influencing how your head rests on top of your spine. And so the actual 'Loop' is bigger than has been shown in the illustrations given above: it spans the neck to include the upper palate, which is a central balance point for your head.

The actions of the Shoulder Loop directly influence the **placement of your head** relative to the central line of gravity through your spine (affecting the tone of your neck and shoulder muscles) as well as the relative **openness of your throat** (the throat chakra – Visuddha Chakra) and even the **tone of your digestive system**, because of its relevance to the placement of the hyoid bone. The Shoulder Loop does all of this in

conjunction with the Head Loop, and **the Shoulder Loop precedes the Head Loop**, bringing the head into alignment.



When considering this larger role of the Shoulder Loop in relationship to the alignment of the spine, think of it as beginning at the **Focal Point** at the center of your **upper palate**. Here there is obviously a shift in Focal Points:

1. Our treatment of the Shoulder Loop until now has focused on the actions of the arms concentrated on drawing Muscular Energy into the Focal Point in the heart.
2. When taking the wider view of the Shoulder Loop in relationship with the core extension through the spine, the Focal Point shifts to the root of the palate.

The **actions** in both cases are ultimately the same — it is only the focus or Focal Point around which the actions are organized that has shifted.

Think of the **Shoulder Loop** as beginning at the **Focal Point** at the center of your **upper palate**. As you initiate the Shoulder Loop, this Focal Point at the center of the upper palate moves back and up, bringing your ears more in line with your shoulders and increasing the cervical curve in your neck, as the energy of the Loop moves actively down (Muscular Energy) to the base of your shoulderblades. From there the energy of the Loop moves forward at the base of your heart toward your sternum, then upward to organically expand and lift your upper chest while completing the 'Loop' of energy to your upper palate.



With this subtle action at the palate, in which you take your head back slightly as if to quaff a delicious drink, the muscles at the base of your head soften and the vertebrae (C1 and 2) move in slightly, so there is no hardness at the back of your neck, and your neck remains long, with a natural extended curve to your cervical spine.

This movement back and up of the Focal Point in the palate is the result of the Shoulder Loop. A second movement which creates upward extension of the neck after having established the curve of the spine is the result of the **Head Loop**, which **follows after the Shoulder Loop**, and brings the neck and head into balance with the center line of gravity through the spine.

The Head Loop also moves back through the Focal Point at the root of the palate, taking the top of the throat –at the hyoid bone – with it. Keeping the actions of the Shoulder Loop in place, you might think of this as **a subtle bow of your head to your heart**, one that does not tip your head forward nor constrict your throat. Instead it comes as a subtle release upward at the base of your head as you release and lengthen upward through the crown of your head. This upward extension actually takes place at the center — at the Focal Point at the root of your upper palate, and thus you do not lose the softness at the base of your head and the inward movement of the cervical vertebrae at C1 and C2.

The power of this extension becomes clear in an inversion — particularly a Headstand — in which your head is weight bearing, and you actively extend through the Focal Point through the crown of your head, without straining or hardening the muscles at the back of your neck.

The combination of Shoulder Loop and Head Loop as an integral action which remedies the two extremes of both compression at the back of your neck as well too much extension — a ‘flat’ neck. Moreover, it opens space at the back of your throat, allowing greater capacity for the breath. On an energetic level, the area to the base of the throat is the locus of energy known as the Vishuddha Chakra, the center for the power of self-expression. The subtler benefit of the Shoulder Loop – in addition to opening the heart – is to experience an opening and expansion of energy in that area.



# PRACTICES AND APPLICATIONS OF THE THE SHOULDER LOOP

## THE 'CACTUS POSE'

While standing, extend your arms out to either side and bend your elbows so that your palms are facing forward. Lift your arms until your elbows are just above shoulder height.

Take your elbows slightly forward and draw your shoulders back, until you feel your shoulderblades firm into your back.



Keeping your arms bent at right angles, rotate your arms back without allowing your elbows to come forward.



Feel how the bottom tips of your shoulderblades press forward toward your heart, lifting and opening your top chest. This brings an open and expansive feeling, as well as softening your neck and shoulder muscles.

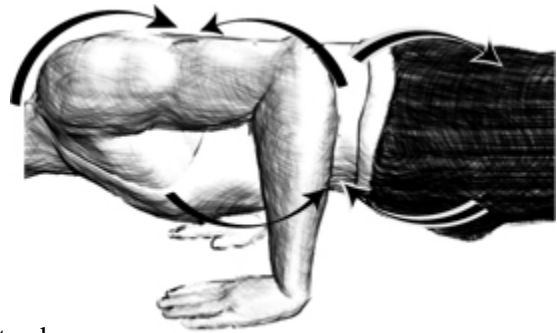
Notice how the effects of the Loop can be felt all the way up to the root of your palate, creating a kind of 'doming' effect at the back of your throat (as if you were yawning).

## The Shoulder Loop works

1. In **dynamic opposition** to the **Kidney Loop** to bring equal expansion and extension in both the front and back of your torso.
  - Expansion with the Kidney Loop at the back body is matched by expansion at the front with the Shoulder Loop;
  - Firmness with the Shoulder Loop at the back body is matched by firmness in the solar plexus with the Kidney Loop.
2. In **conjunction** with the **Thigh Loop** to take the **four corners** of the body – the tops of the thighbones and the heads of the armbones – back toward the back plane of the body, **opening the front body** and bringing them in line with the central axis of gravity at the core of your body.
  - a. These Loops – Shoulder Loop and Thigh Loop – are balanced by the **dynamic opposition of the Pelvic Loop and Kidney Loop**, which **open your back body** and counter any overarching in your spine that might be created by the Shoulder and Thigh Loops.
3. In **conjunction** with the **Head Loop**, aligning your head and neck and releasing tension in your shoulders and neck.

## THE SHOULDER LOOP IN ACTION: CHATURANGA DANDASANA

A prime example of how the Loops must be coordinated – particularly in relation to the Shoulder Loop – is the important pose, **Chaturanga Dandasana**, which demands a coordination of the Loops to tap the core strength of the body. Without this coordination, your shoulders tip



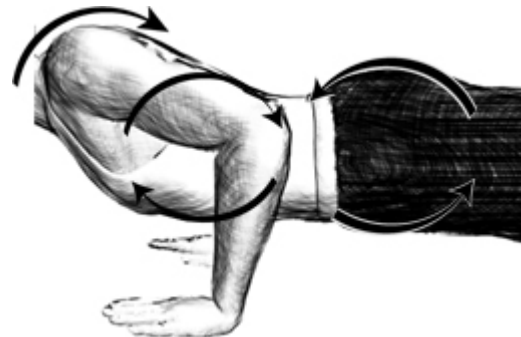
forward as your arms work to hold you up, straining the fronts of your shoulders in a way that can lead to injury.

**When the two loops are balanced**, the Shoulder Loop has steady ground for the shoulderblades to firm into, thanks to the Kidney Loop.

In a **balanced Chaturanga Dandasana**, the Pelvic Loop and Kidney Loop work together to firm the lower abdominals to lift and support the spine while the kidneys lift underneath the shoulderblades. At the same time, the Shoulder Loop works dynamically against the Kidney Loop to keep the armbones lifting toward the back body while firming the shoulderblades into the back. The result is that the entire body is firm at the core, like the ‘staff’ that is the poses’ namesake.

**If the Shoulder Loop overpowers the Kidney Loop**, your back overarches and your upper body strength is actually reduced.

In this case, because the Shoulder Loop is exaggerated, the **other Loops are reversed**, overarching the back.



Conversely, **if the Kidney Loop overpowers the Shoulder Loop**, your shoulders will round forward, forcing you to rely too much upon arm strength while putting your shoulders at risk of injury.

In this case, because the Kidney Loop is exaggerated, the **Shoulder Loop reverses**, throwing the shoulders forward. This can also happen simply from the effort to ‘push’ oneself into the pose, using arm strength as in a push-up.



## HOW TO LIFT AND SUPPORT YOURSELF IN CHATURANGA DANDASANA

When lifting yourself from the floor into Chaturanga Dandasana, engage the Loops in the following order, after initially setting the alignment of your shoulders:

1. Place your hands so that your forearms are perpendicular to the floor, your elbows close to the sides of your body, and draw your armbones toward the back plane of your body until your upper arms are parallel with the floor. This will put your upper back into a slight backbend. Your arms should hold to this alignment throughout the pose.
2. Firm the muscles of your arms and draw energy up from your fingertips into your shoulderblades, firming your shoulderblades in toward your heart as if they were magnetically drawn to it. It's like pulling on long energy gloves.
3. While keeping your arms firm, soften your heart downward, letting it melt so that your spine moves deeply into your body as your shoulderblades come firm and flat on your back.
4. Firm and straighten your legs. Once your shoulders are steady, the Focal Point of the pose can be located in your pelvis. (When the heart and the pelvis are on the same level, the pelvis is the Focal Point by default). To lift into the pose,
  - a. Press down through your feet, using the strength of your thighs (Thigh Loop) to lift your hips until they are nearly level with your shoulders.
  - b. Using your lower abdominals, firm your lower belly, drawing it in (toward the spine) and up toward your navel to scoop your tailbone with the Pelvic Loop as you
  - c. 'Puff' your kidneys to lift into the pose. Breathe into your kidneys, joining the power of your breath to the strength of your thighs, lower abdominals and the power of your tailbone to engage the core strength of your body.
    - i. You may find that squeezing your elbows in toward your side body assists the 'puffing' and lift of your kidneys (by engaging your 'lats' – latissimus dorsi)
  - d. Throughout these actions, your shoulders should remain firm and steady, neither lifting nor dropping, keeping your upper armbones level with the floor. Actively draw your armbones up away from the floor, using the strength of your shoulderblades, while melting your heart downward, to resist the tendency for your shoulders to round forward.
  - e. To assist the Shoulder Loop, raise your eyes to look forward, without dropping too much in the kidneys.

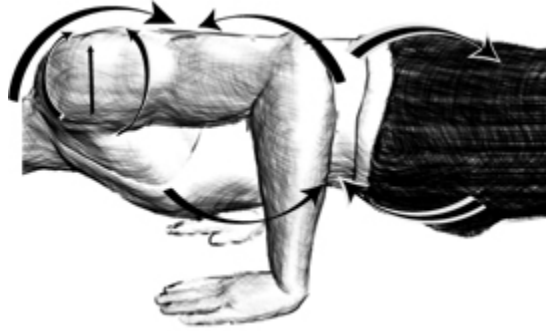
## ADJUSTING YOUR SHOULDERS WHILE IN CHATURANGA DANDASANA

If you still feel excessive effort at the fronts of your shoulders – either at the head of your armbones or the head of your biceps – then take the next three steps to reestablish the Shoulder Loop:

1. Open your elbows away from the sides of your body (Inner Spiral)
2. Draw your shoulders away from the floor, squeezing the tops of your shoulderblades toward each other as you bring your armbones level with the floor ('Armbones back')
3. Squeeze your upper arms back in toward the sides of your body to broaden your top chest and upper back (Outer Spiral), while firming the lower tips of your shoulderblades into the firmness of your back at the area of your kidneys (Shoulder Loop).



These actions combine to lift the heads of your armbones toward your back body and rotate your arms externally as you reaffirm your Shoulder Loop with good alignment of your Shoulder Girdle.



### LOWERING INTO CHATURANGA DANDASANA FROM PLANK

More often in the course of practicing Surya Namaskar, the Sun Salutation, we lower down into Chaturanga Dandasana rather than pressing up from the floor. This is often more manageable, and offers an even better (and simpler) practice of the actions for the Shoulder Loop. It's also a time to be mindful, since bad habits develop through fast and mechanical repetition and fatigue. Shoulder injuries such as rotator cuff injuries and biceps tendonitis are among the most common in practices that emphasize repetition of 'Jumpings' – i.e. jumping back to Chaturanga Dandasana.

1. Starting in Plank Pose, with your shoulders directly over your hands, first melt your heart down to take your armbones to your back body. Engage the core strength of your body by firming to create the Thigh Loop, Pelvic Loop and Kidney Loop, emphasizing the work of your thighs and lower abdominals even while melting your heart downward.
2. Shift your body forward in space as you begin to bend your elbows, so that your forearms remain vertical as you descend,
3. Actively draw your shoulders away from the floor as you descend by bending your elbows, keeping your elbows close to the sides of your body. Descend until your upper armbones come parallel with the floor.

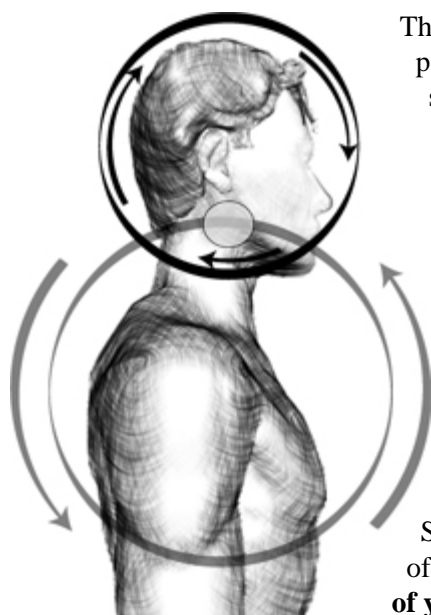
With practice, these actions can be performed even while jumping from Uttanasana back to Chaturanga Dandasana with control.

### THE BENEFIT OF CHATURANGA DANDASANA AS SHOULDER WORK

Chaturanga Dandasana can be an extraordinarily beneficial pose for developing upper back strength as well as for developing the core strength of the body. When practiced with good action and alignment, it helps to make a good Shoulder Loop a natural and easeful part of your normal posture and can help you to overcome stooped shoulders and a rounded upper back. Unfortunately, a mechanical and misaligned practice of repetitious Chaturanga Dandasana's can do the reverse, accentuating already stooped and rounded shoulders. It *is* possible in the quest for fitness to develop an unhealthy posture.



# THE HEAD LOOP



The Head Loop is initiated from the Focal Point at the center of your upper palate; it moves back and up at the base of your skull and moves up and over, softening your face as it moves downward.

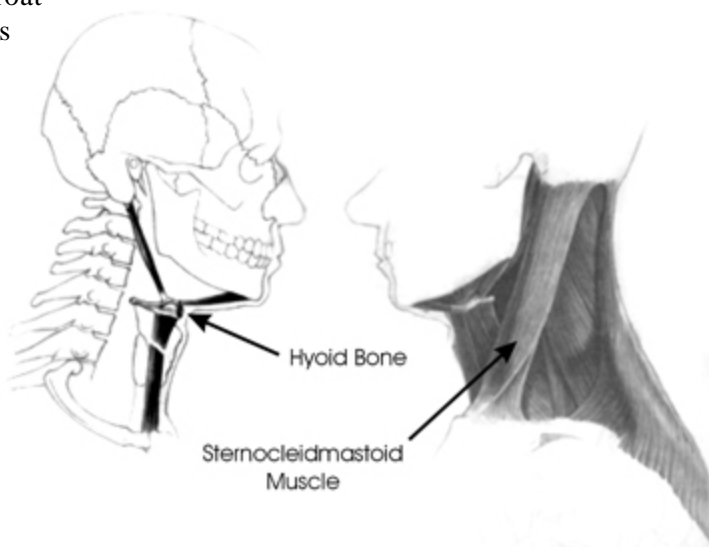
The Head Loop meshes closely with the Shoulder Loop, and the **actions** by which each Loop is created are closely related.

- The **Shoulder Loop** opens the back of your throat, creating a kind of ‘dome’ at the soft palate as it moves the Focal Point back and up at the root of your palate. To feel this lift and opening, simply create a good Shoulder Loop and yawn!
- The **Head Loop** meshes with that action of the Shoulder Loop by taking the top of your throat – at the hyoid bone – back and up. This creates extension in your neck, and meshes with the lift and opening of your top chest brought about by the Shoulder Loop, because of the Sternocleidmastoid muscle running from the top of your sternum to the base of your head behind your ears. The Head Loop **releases tension at the back of your neck** through the upper Trapezius, which runs from your shoulders to the base of your head, as the Head Loop takes the base of your head back and up. This meshes with the action of the lower Trapezius at your back body, which draws energy down your upper back with the Shoulder Loop.

The **Focal Point** of the movement is at the **center of the upper palate**; the **Shoulder Loop** moves back through this point, taking the head into **alignment**, so that your ears are more in line with your shoulders, and you have a proper **curve** in your neck. The **Head Loop** both creates **extension** in the neck once this curve has been created, and also tips the head with a subtle bow so that it is no longer tipped back, but **level**, with your head balanced lightly on the top of your spine.

Notice that this adjustment takes place by taking the **hyoid bone**

– at the top of the throat (where the jaw line meets the throat – just above the Adam’s Apple) – back and up, as if smiling from ear to ear. **This is not the same as pulling your chin in**, which only flattens and hardens the back of your neck. Nor should you pull back so hard at the top of your throat that it constricts your throat.



The action of the Head Loop is a gentle, balancing action that affirms the natural curves of your neck, rather like the graceful bow of a swan.

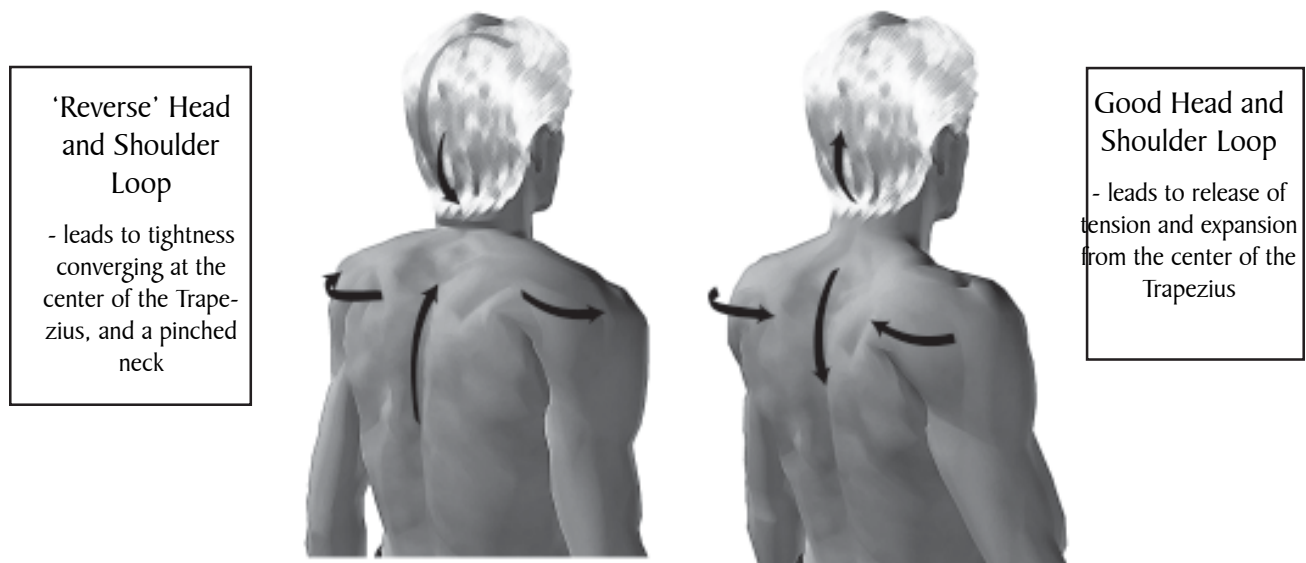
The **hyoid bone** provides a point of reference for this action, and is an important meeting place for the muscles of your neck and shoulders.

Because of the connection at the hyoid bone to the base of the head, the further forward your head is placed (an habitual posture for many of us), the more downward pull at the base of your head is exerted. This brings a corresponding drop at the top of your sternum because of the connection from the base of your head to the top of the sternum through the Sternocleidmastoid muscle – thus reversing the Shoulder Loop. End result: pinched neck.

Also, because the Hyoid bone – which is a horseshoe-

shaped and free-floating bone – surrounds your esophagus and is closely related to the muscles involved in swallowing, the orientation of your hyoid bone has a dramatic influence on the tone of your whole digestive system. The reversal of the Shoulder and Head Loop that takes place when the head is forward causes a loss of tone to the entire digestive system, as well as inhibiting breathing.

The Head Loop also influences your back body in conjunction with the Shoulder Loop through its influence on the Trapezius muscle (and Levator Scapulae muscles).



The **Head Loop** works

1. In **conjunction with the Shoulder Loop**, moving in opposite directions like gears meshing, or interpenetrating spheres of circulating energy.
2. In conjunction with the **Kidney Loop**, moving in the same direction, particularly at the back body. When you shorten the back of your neck, reversing the Head Loop, there is a corresponding collapse in the kidneys. This is especially evident in the Downward Facing Dog Pose, when the head is lifted too much, as well as in Backbending, such as in a Cobra pose when the head is excessively tipped back at the base of the head, pressing the throat and shoulders forward while pinching the back.
3. In conjunction with the **Pelvic Loop**, moving in opposite directions, but closely related because of **resonance** between actions taking place at the **hyoid bone** and in the **psoas** muscle.

A release in the muscles of the neck because of proper alignment of the hyoid bone produces a corresponding release in the psoas muscle – and so with a good Head Loop, releasing the base of your head upward, is matched by a better Pelvic Loop, with a corresponding downward release of the tailbone.

In general, the **Head Loop, Kidney Loop and Pelvic Loop move together**, creating both extension and grounding through your back body.

The **Thigh Loop and Shoulder Loop move together** in opposition to this, creating expansion and lift at the front body while taking the four corners of the body back, and contribute to creating proper curves in the spine.

## THE BENEFIT OF THE LOOPS IN THE UPPER BODY

A primary benefit of the Loops in the upper body is that they direct the energy of the muscles in a way that prevents the kind of compression that can happen in key joints of the body through compression and hyperextension – particularly at the neck and lower back.

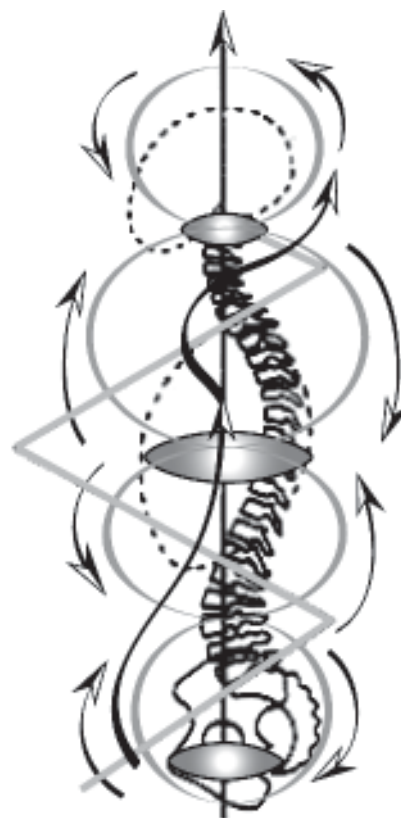
Through engagement of **Muscular Energy** in accordance with the flow of the Loops, **the Loops run counter to the key areas of stress, locking or collapse** in joints and vertebrae – the ankles, knees, hip joints, spine (particularly at the sacrum – L3 – and midback – T12), and neck (particularly at C7).

In the diagram at the right, the straight zigzag lines trace the orientation of the vertebrae at the natural curves in the spine. Without inner lift or support, gravity can win over time, collapsing the spine like an accordion by exaggerating these curves.

The Loops, combined with the breath moving through a properly ‘focused’ or aligned body, instead expand the accordion, bringing lightness and extension, rather than collapse.

The primary lift comes from the combined action of the Pelvic loop and Kidney loop (for further elaboration, see the section on the Bandhas). The lower belly presses in and up against the lumbar spine, supporting it and drawing the pelvic diaphragm into focus with the central diaphragm, as well as setting the stage for expansion of the upper body through the Shoulder and Head Loop.

Overall, the Loops align the body vertically along the central axis of the body and express its core strength. This brings freedom and release from strain in the muscles through creating balanced action, and also frees the breath to express itself fully in the body as the movement of prana. The loops in this diagram describe the actions of the body that take place in conjunction with a full breath when the diaphragms of the body are properly aligned.<sup>17</sup>



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<sup>17</sup> See *Refining the Breath* by the author (listed in the bibliography)

# 5

## REFINING THE LOOPS

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# REFINING THE LOOPS

## RECONCILABLE DIFFERENCES

So far we've taken a rather 'one-sided' view of the Loops for the sake of simplicity: we've illustrated the Loops from the side, often treating them like interlocking gears or wheels of energy. But as any student of yoga soon notices, the two sides of the body are not equal. One side of the body is more flexible than the other – whether in the hamstring, hip, shoulder and so on – and one side of the body is aligned differently than the other – with one leg or knee turned in or out more than the other, one hip rotated forward or one shoulder more forward than the other. The more complex and difficult problems with the body (notably scoliosis) begin with these kinds of differences and imbalances and complex relationships emerge – a knee or hip problem on one side causing neck or shoulder problems on the opposite side.

Problems and pains criss-cross through the body with a subtlety that reveals the delicate weave of the fabric of the human form. The problems that often come up are not the kinds of things that a mere workout or stretching session will automatically fix. The effectiveness of yoga depends upon the intelligence and self-awareness with which we practice it; when done with awareness, yoga is an extraordinarily effective process of fine-tuning the body to bring it into balance, a process in which we must pay attention to the actions and tendencies of opposing sides of the body and their relationship to the center or central axis of the body.

## YOGA AS HARMONIZING THE ENERGIES OF BODY, MIND AND SENSES

This was very much the classic concern of hatha yoga from the very beginning. One of the meanings of 'hatha' is the effort to bring opposing energies – 'ha' and 'tha', sun and moon, heat and coolness, activity and receptivity – into balance on a very refined level in body and mind. The clearest example of this concern is the interest the yogis took in how the breath flows through the two nostrils. As the breath stimulates these two passageways, the energy of the breath or 'prana' moves through the core of the body by way of two 'nadis' – 'rivers' or channels of energy that run from the two nostrils to a meeting point at the base of the spine. The flow of the breath through the two nostrils is rarely equal; predominance of one nostril (through which the breath flows more easily) brings greater stimulation to one side of the nervous system, while the other fades into the background. Contemporary science has verified these insights in its own way; studies have found that stimulation of one or the other of the nostrils by the breath activates a corresponding hemisphere of the brain, altering our moods and abilities in a way that supports the insights of the yogis.

Yogic science exhaustively detailed the varying influences of the stimulation of each nostril on our ability to function effectively in the world, both in terms of our rational, analytical abilities (right nostril), as well as in terms of our intuitive, emotional intelligence (left nostril). Yoga as a science of the breath was and is intensely interested in regulating breath patterns to ensure that we are at the height of our abilities in any situation, and in a way that is entirely 'in the flow' with or appropriate to the situation. This made the yogic science of the breath an eminently practical undertaking.

But this science had spiritual as well as practical import. Beyond the 'worldly' concerns met by attending to the flow of one's own breath before dealing with any given situation, the yogis recognized that quietness of mind and higher, more 'spiritual' experiences are attainable to us only when the opposing energies of the breath are brought into balance. As they described it, when the breath or pranic energy of the breath flows equally in both nostrils (and their corresponding channels), these two energies become harmonized and merge in the central channel running through the energetic core of the subtle body, the 'sushumna' nadi, which roughly corresponds to the central nerve of the spine.

This inward turn of the power of the breath draws the energy of the mind and senses with it, focusing our attention inward like a laser beam and silencing the flow of thoughts. As this energy moves upward in meditation, it begins to loosen the knots of our mental tendencies and we begin to experience purely and directly the true nature of our own spiritual being, which yoga classically describes as *sat-chid-ananda*, or existence (pure being),



awareness (pure consciousness in its fully expanded form, as profound self-awareness) and bliss (pure happiness not contingent upon anything else).

This pure and unobstructed experience of Spirit is the one ultimate goal of yoga, is the fruit of one's physical practice and mental discipline; and comes as a gift, as grace, in return for one's loving devotion to knowing God and to knowing one's own true and highest nature.<sup>18</sup>

For all of these reasons, the overarching concern of the practices of hatha yoga is to bring balance and harmonization to our energies. Yoga is intensely concerned with bringing the two sides of our being – physical, mental, and subtle energetic being – into balance at every level, using the vehicles of the body and the breath. The guiding principle was attention to how the breath moves; but if the **body** is physically asymmetrical (as it always is) and is not brought into greater balance, it presents an obstacle to effectively centering through the breath, mastering the mind, or truly opening and experiencing the greatness of your own heart. Working with the body to bring it into balance is the necessary condition for bringing these greater accomplishments about.

This is **not** to say that you have to have a perfectly balanced body before you can have any spiritual experience: physical perfection does **not** equal spiritual superiority! We **would** want to say that, from wherever you start (right now), the process of bringing yourself into greater balance through the practice of yoga brings deeper and deeper experiences of your inner spiritual Self. *And* because everyday physical life is by its very nature a fluctuating dance of opposing forces, throughout our days we constantly move from balance to imbalance to balance again; hence the practical work of doing yoga is endless too. To do yoga is to engage in the dance with the elemental forces by which we – and nature itself – are constantly renewed. To miss doing our yoga is to set ourselves apart from the flow of nature – and grace – itself. The nice thing is that yoga always accepts us back.

## THE LOOPS

The Loops provide a powerful tool for bringing harmony and balance to the body, once we fully appreciate the subtlety of their application to the body. The body has two sides, and so each Loop has two 'sides' as well. For example, in the case of the Shoulder Loop, one shoulder may behave differently relative to the other – one is more forward than the other, for instance, and so the Shoulder Loop has a different emphasis and application on one side relative to the other. In the case of the legs, there are also two limbs, and so two Loops – two Ankle Loops, two Calf Loops and so on – working for the most part independently of each other. In a pose such as Trikonasana, the two legs are doing two quite different things, requiring different nuances. Yet how we **balance** the actions of the Loops *between the two sides* profoundly affects the center – the energy that runs through the central channel of the spine – as well as the physical alignment of the spine itself.

Moreover, *within* each Loop there is a spiraling energy as well that supports the structure of the bones. No Loop really works like a two-dimensional 'fan belt,' even though we can initially envision them that way; rather they are more like three-dimensional spheres of swirling energy that describe the intelligence of the muscles as they engage and bring about expansion and extension in the poses.

In each area of the body there are **points of attention**<sup>19</sup> or places of **structural vulnerability** where we often experience problems – in the arches, knees, lower back, shoulders, neck and so on. Since the Loops work to protect our joints, these are points to be particularly aware of when practicing the Loops, and this awareness brings refinement to *how* we experience the Loops.

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<sup>18</sup> For a more detailed treatment of the breath and the relationship of pranayama to the system of the 'nadis', see *Refining the Breath* by the author. (Listed in the bibliography)

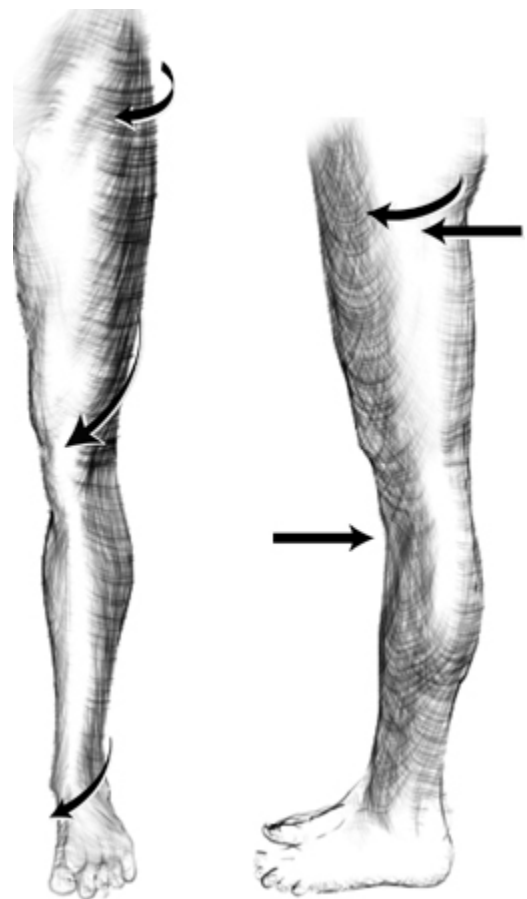
<sup>19</sup> My own entirely unofficial term

Notice the three ‘points of attention’ in the leg that appear particularly when the knees ‘lock’:

1. The collapse or pressure on the **inner arch**, which also includes the base of the shinbone moving forward (toward the front body) at the ankle.
  - This forward movement of the Shinbone is particularly evident in Trikonasana, when the front of the ankle bulges, back of the ankle is compressed at the heel, and the inner arch flattens.
2. Pressure on the **inner knee** as the joint turns in and presses back.
  - You see this in any pose in which the leg is extended and the knee is ‘locked,’ creating hyperextension of the knee. It’s especially evident in Trikonasana
3. The **outer hip** at the thighbone turns forward, compressing the front of the hip joint, particularly at the outer hip.
  - This is particularly evident in Ardha Chandrasana, when a ‘crunching’ or compression is felt at the outer hip of the standing leg.

These three points are specifically addressed in succession by the three Loops – the Ankle Loop, Shin Loop and Thigh Loop. The problem begins at the foundation – for lack of a good Ankle Loop – and proceeds upward; yet the most serious weak point is at the knee, which is at the center of the relationship between these three Loops. When refining the Loops, we have to look the closest at the effect of the Loops in supporting the knee, and the muscular action(s) that set the Loops in motion and bring about that support.

The primary action that sets the Loops spinning is in the foot, grounding through the mound of the big toe with ‘stepping on the gas’ that initiates the Ankle Loop. Before moving upwards through the Loops, we can take a closer look at this action.



## THE ANKLE LOOP REVISITED



The primary point of attention in the case of the ankles, as we have seen before, is the inner arch, which has a stubborn tendency to collapse.

This collapse – for lack of an Ankle Loop – is closely related to the locking of the knees that takes place for lack of a Shin Loop; when the knees lock, they turn inward, turning the lower leg bones (esp. the fibula) inward, which turns the talus bone as well, making the inner arch of the foot collapse.

The remedy begins from the foundation.

When starting from the foundation, the first action of Muscular Energy engages the Ankle Loop. The **easiest** – though not the only – way to engage the Ankle Loop is to lift your toes so that your arches lift. This shifts your weight to the balls or mounds of your toes (particularly the big toe mound) and to your (outer) heel.

Two opposing actions are intertwined in this one instruction.

1. One of the main muscles of the lower leg that supports the arch of the foot is the **tibialis anterior**, which runs next to the shinbone at the front of the lower leg. When you lift your toes to engage the Ankle Loop, this muscle engages as well, lifting the arch. You feel this as a firming and muscular lift at the front of your shin.

The **tibialis anterior**, when engaged with the **Ankle Loop**, provides the **resistance for ‘stepping on the gas’** to engage the **Shin Loop**. The Shin Loop doesn’t work without engagement of the Ankle Loop; the tibialis anterior and peroneal muscles provide the necessary resistance so that you don’t simply point your toes in the Shin Loop.

2. The tendon of the Peroneus Longus, as we have already seen, crosses the outer ankle behind the anklebone, and then crosses the sole of the foot before attaching to the bottom of the bones that form the innermost part of the arch, particularly at the big toe. When it is engaged, the Peroneus Longus both firms the outer calf or outer ‘Shin’ in, and grounds the big toe mound, pressing it down.

Both the Tibialis Anterior and the Peroneus Longus support the lift of your inner arch, each in its own way - through the lift and spreading of the toes that engages



*The primary point of attention for the feet is the inner arch, which tends to collapse, leading to misalignment of the legs from the ground up.*



*The simple muscular action of lifting the toes brings your weight to the big toe mound and outer heel, while lifting and supporting the inner arch.*



*The Tibialis Anterior engages when you lift your toes to engage the Ankle Loop. This muscle works to lift and support the arch of your foot.*



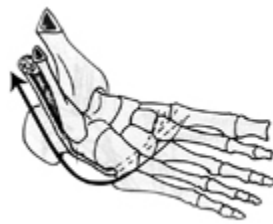
the Ankle Loop, and the grounding of the big toe mound (and outer heel) that firms the ‘Shin In’ and plays an important role in the Shin Loop - respectively. The Shin Loop is also engaged by the actions of the Peroneus Brevis, which refines the action of the Shin Loop as you lift and extend out through your little toe, and also of the Soleus muscle as you press through the mound of your big toe and engage the Gastrocnemius.

Ideally you should be able to strike a balance between the **Tibialis Anterior**, which lifts the arch and slightly flexes the foot and grounds the outer heel, and the **Peroneus Longus**, which grounds the big toe mound. The action of the **Ankle Loop** is **completed** by extending organically through your toes after lifting and spreading them to activate all three arches of the foot.

We pull these actions together with the simple idea of ‘stepping on the gas.’ *While lifting and spreading your toes, press down through your big toe mound* to engage the muscles of your calf, both at the outer edge (‘Shins In’ as the first action of the Inner Spiral) and middle of your calf (Shin Loop, engaging the Soleus, even as you draw energy up through your calf - Gastrocnemius). Stepping on the gas in a car is a controlled and measured action – tempered by the tibialis anterior, which lifts the inner arch and opposes the Soleus – that engages the muscles of the lower leg without pointing the toe or contracting the heel. It’s a kind of ‘pushing off’ through the mound of the big toe, rather like a runner’s foot bracing against the starting block, before he bursts into a sprint.

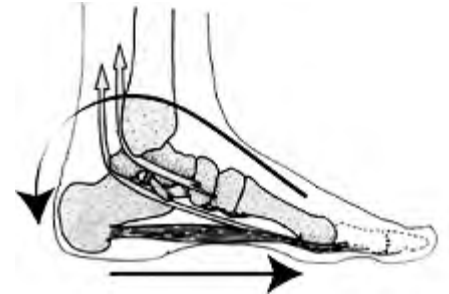
The most tangible result of these actions is that you find your weight distributed equally between your big toe mound and your outer heel. Hence there’s an **angle** or **pitch** to the Ankle Loop: because the inner arch is the weak point of the foot, the energy of the **Ankle Loop** circulates most strongly (though not exclusively<sup>17</sup>) between the **big toe mound and outer heel** as you ground through these points (when your feet are weight-bearing) or extend through them (when your feet are not weight-bearing).

**The mound of the big toe is always the pivot point to which we first bring our weight**, because with that we can begin the proper engagement of Muscular Energy, both by drawing energy up through the tops of the feet toward the ankle (lifting the toes) and pressing through the big toe mound to engage Muscular Energy through the arches of the feet and lower legs.



*Peroneus Longus engages when you lift and spread your toes and press through the big toe mound.*

*The Ankle Loop is completed when you extend organically through your toes, finally engaging all of the muscles that support the arch of your foot.*



*The ‘pitch’ of the Ankle Loop turns the Talus bone out and rotates the fibula back, aligning the ankle and knee joints while lifting the arch of the foot.*



The **outer heel** is also **equally grounded** (or extended), to keep the heel from lifting or hypercontracting. *Without this grounding or extension of the (outer) heel, the Ankle Loop is lost.*

It's worth noting that as we work with the Loops in the Lower Body, **it's vital to maintain a good Inner Spiral**. These refinements through the actions of the foot depend upon the centering action of the Inner Spiral. Because most of our attention at this point is being given to the big toe mound and outer heel, it's important to remember to keep the *inner* heel grounded (or extending, such as in an inversion) as well as the outer heel; otherwise it's possible that the heels will 'hook' and too much outer rotation will result.



If we fail to maintain a good Inner Spiral, grounding the inner heel, the heels can 'hook,' leading to too much outer rotation and pressure on the outer ankles.

## THE SHIN LOOP REVISITED

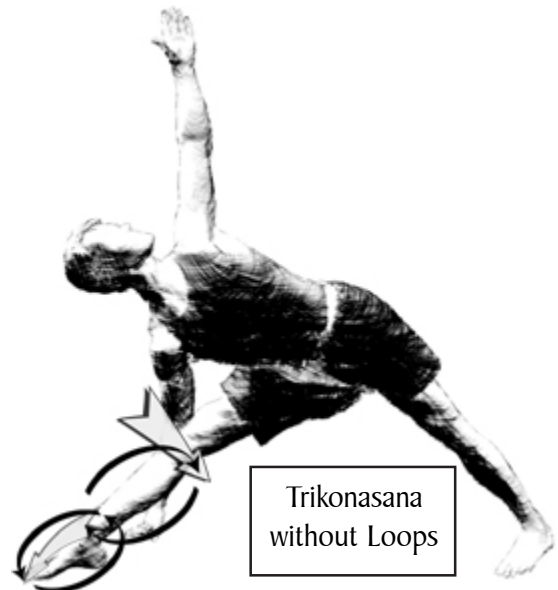
In our original discussion of the Shin Loop, we saw that the actions of the *Gastrocnemius* are **balanced** by the *Soleus* muscle, which is engaged by pushing off through the mound of the big toe. But at the *two extremes* of working the foot – the foot fully extended (toes pointed) or fully flexed (heels extended, foot flexed back), the *Gastrocnemius* is at work, while the *Soleus* is *cannot* be properly engaged. The result is a pulling from the *Gastrocnemius* at the back of the knee, threatening the joint with hyperextension.

We offered **Trikonasana** as one example. When the front leg is not working properly, the front foot is extended – the toes pointed to keep the big toe down – and there is no action creating the Ankle or Shin Loop. The result is that the back of the heel at the Achilles tendon is pinched or compressed, and the *Gastrocnemius* contracts, pulling along with the hamstring to extend the leg.

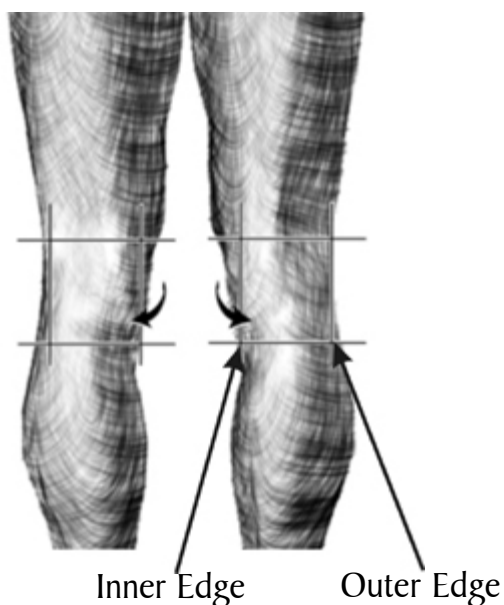
Because there is no support from the Ankle or Shin Loop, both the *Gastrocnemius* and Hamstring exert a pull toward the back of the joint, as is shown in the illustration, locking the knee and encouraging it to turn inward. There is no muscular engagement to counter this pull, and so pressure is placed on the joint by gravity, weakening the knee.

Like the Ankle Loop, the Shin Loop has a certain angle or pitch to it too, grounding the Loop through the (outer) heel while protecting the knee where it is most vulnerable. This adds refinement to our work with the lower legs. Much of the work with the lower legs that we've covered so far has been in the context of **Shins-In, Thighs-Apart**, with attention to aligning and tracking the knee as it bends or extends. Moreover, we've said that the **Shin Loop** works to resist hyperextension or 'locking' of the knee as well as compression in the front of the ankle joint, while diagramming the action of the Shin Loop fairly simply.

The 'point of attention' at stake here is the **inner knee**, where the knee joint is weakened through hyperextension. Particularly as we work deeply into our yoga, we develop the tendency to straighten our legs by pressing back through our inner knee, causing the knee to turn in.<sup>20</sup> This is the case especially in poses such as Downward Facing Dog and Trikonasana, as mentioned above, and this action puts pressure on the joint at precisely its weakest point.







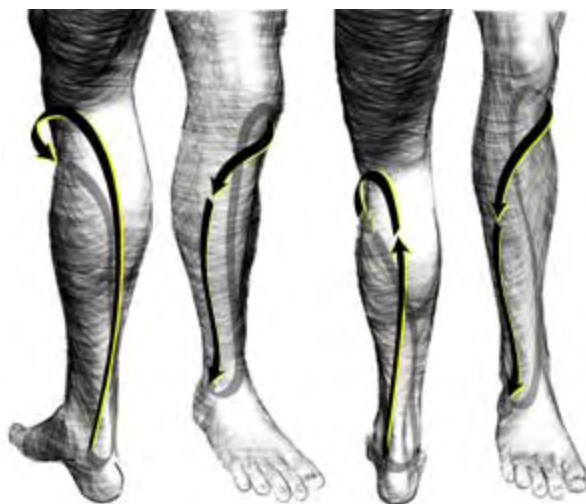
This is something that can be seen especially by looking at the **back** of the knee, where the **inner edge** of the knee joint bulges and is further back than the outer edge of the knee. Often softness and puffiness at the back of the knee can indicate damage to the meniscus that results from this kind of pressure.

This problem can get **worse** instead of better if we **mistakenly** do the **Inner Spiral** as a mere **inward rotation of the thighbone**, rather than as an engagement of the inner thigh muscles (adductors) that creates an expanding spiral. This mistaken inward rotation of the thighbone is **for the most part corrected** by emphasizing ‘**Shins-In, Thighs-Apart**’ as a necessary element of the Inner Spiral.

But while ‘Shins-In, Thighs-Apart’ *helps* to track the knee properly and to correct the tendency for the knee to turn in, ‘**Shins-In, Thighs-Apart**’ **does not by itself provide support at the back of the knee** – particularly the inner knee. That is the job of the **Shin Loop**, which looks at the dynamic from a different angle.

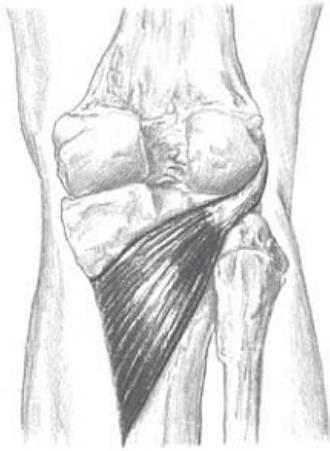
Like the Ankle Loop, the Shin Loop has a pitch or spiral of its own. The **Ankle Loop** grounds the heel – particularly the outer heel; the **Shin Loop** relies upon that grounding or extension and – when the Soleus and Gastrocnemius are engaged by working the foot – ‘spirals’ toward the **inner knee**, creating a muscular firming and lift that **supports the inner knee**, pressing it forward at the top of the shinbone even when the leg extends.

At the **front of the shin**, the Loop softens any hardness caused by engaging the Ankle Loop; when you lift your toes to engage the Ankle Loop, the muscles at the fronts of the shins firm, lift and can harden or feel tight. Stepping on the gas to initiate the Ankle and Shin Loop softens this hardness and brings balance; you can feel the skin at the fronts of the shins melt downwards, even as the muscles beneath remain firm.



<sup>20</sup> Note that you can’t always tell if this is happening by looking at the kneecap; some people’s kneecaps are set more to the outside, so that it can look – for instance, in Downward Facing Dog Pose – as if the knees are turning out (judging from the kneecaps) when really the knee joint is turned inward as the knee hyperextends. Rather, look at the back of the knee to see if the inside and outside corners of the knee joint are moving back equally.

## ‘STEPPING ON THE GAS’



### The Popliteus

‘The Key that Unlocks the Knee’

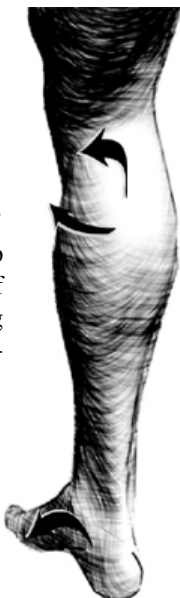
The Popliteus plays an important role in the Shin Loop; when engaged, it flexes or works to bend the knee



### Tibialis Posterior

Runs underneath the Popliteus at the back of the knee, is activated by lifting the arches and ‘pushing off’ with the big toe, as in ‘stepping on the gas,’ and resists the inward rotation of the tibia encouraged by the Popliteus

‘Stepping on the Gas’ activates these deep muscles at the back of the knee, supporting the knee against hyperextension



The **basis** for this refinement of the Shin Loop looks to muscles at the back of the knee — the **Popliteus** and **Tibialis Posterior**. The Popliteus is a small short muscle that runs diagonally, and is a deep muscle at the back of the knee, lying beneath the Gastrocnemius. It is a weak flexor of the knee (meaning that it works to bend the knee), but it plays an important role in unlocking the knee from a fully extended – and hyperextended – position. For this reason, it is often called “**the key that unlocks the knee.**”

The Popliteus by itself also influences the tibia to rotate internally as the knee bends; but beneath the Popliteus is the Tibialis Posterior, which runs from the inner arch through the back of the knee along its inner edge. When we lift the arches, this muscle is engaged, and resists the tendency of the Popliteus to turn the shin inward. The combination of the two muscles creates firmness and core support at the back of the knee, and resists hyperextension. These are at the deepest level of the Shin Loop, and actually cross over the knee joint. They are engaged by slightly bending the knee and lifting the toes, lifting the inner arch as well. This creates a lift or firming at the back of your inner knee that supports the knee from behind at the deep level of the joint. Because of this action, these muscles play a vital role in the Shin Loop.

And so in any (standing) pose, when you slightly **bend** the knee (especially to unlock any hyperextension), **engage the arches** (by lifting the toes) and ‘**step on the gas**’ (pressing through the mound of the big toe while maintaining the lift of the arches), the muscles firm at the back of the inner knee, pressing the **inner knee forward**, initially supporting it against hyperextension.

This action *initially* supports against hyperextension, because this action must be balanced by an action in the outer shin, one that connects to the foundation. Otherwise the knee can just as easily lock back into hyperextension and the arches collapse. The necessary action to complete the Shin Loop comes with the extension of the little toe. The extension of the little toe firms up the arch of the foot and spirals the bones of the lower leg – tibia and fibula – *out* as the Shin firms *in*, grounding the outer heel and properly aligning the ankle and knee.

The action happens in this way: as the inner knee firms and is supported from behind, you also have to work your peroneal muscles: the big toe mound engages Peroneus Longus, while extending out through your little toe engages Peroneus Brevis (‘racing stripe’) along your outer shin.

Notice how this spirals your outer shin back even as your inner knee moves forward.



The Shin Loop has an ‘Outer Spiral’ to it as one extends out through the little toe and grounds the outer heel.

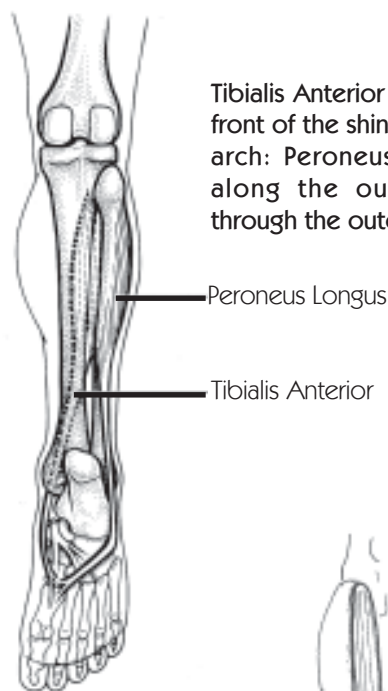
The end result is better alignment of the knee – particularly of the bones of the lower leg in relation to the thigh bone – with firm support from your foundation in your foot, and from the muscles firming around and thus aligning your knee join.

At play here is a relationship between two sets of muscles that surround the heel forming a kind of ‘stirrup’ — the Tibialis Anterior (involved directly in the Shin Loop) — and the Peroneal muscles, which affect the rotation of the bones of the shin. These two sets of muscles ‘meet’ in their connection at the big toe, and the action of the peroneals is further strengthened by how you work with your little toe. Since these run on either side of the heel, the balance of actions between these two sets of muscles strongly affects the ‘spiralling’ actions of the lower leg.

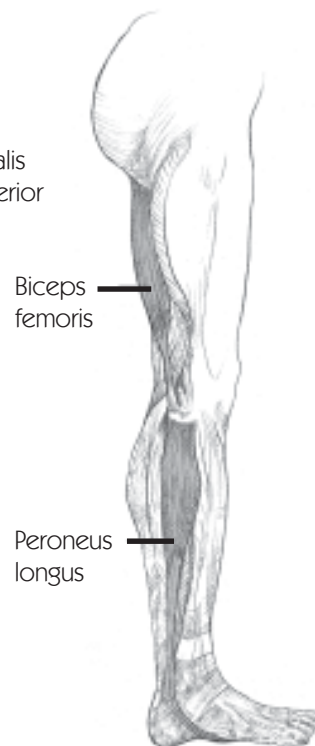
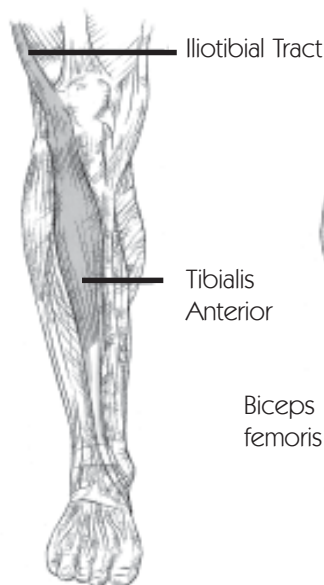
Moreover, there is a fascial connection between Tibialis Anterior and the Iliotibial Tract on the one hand (which influences the leg to spiral in when one tightens along this line) and between the peroneal muscles and the ‘outer’ hamstring — Biceps Femoris — on the other (which influences the leg to spiral out when one tightens along this line). The balance of the two Spirals — Inner and Outer — has much to do with the balance of muscular tone and action along these two ‘lines.’



Lifting and spreading the toes to extend out through the little toe engages the Peroneus Brevis, ‘spiraling’ the outer shin back while firming it ‘in.’ This supports and aligns the bones in the knee joint, as well as supporting the arch(es) of the foot.

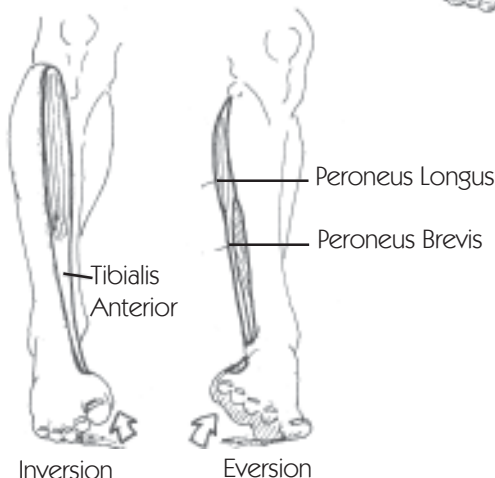


Tibialis Anterior runs along the front of the shin from the inner arch: Peroneus Longus runs along the outer shin and through the outer arch.



When the foot is free to move, these two muscles affect the inversion and eversion of the foot.

When the foot is fixed, the pull of these two muscles affect the rotation of the knee joint.



Because of the clear fascial connection between these muscles of the lower leg to those of the upper leg, there is a clear connection to the actions of the Spirals.

Overall, the ‘pitch’ of the Shin Loop as it protects against hyperextension of the knee (and the inward rotation of the knee that comes with hyperextension) is more closely related to the Outer Spiral of the leg — balancing the grounding of the big toe with that of the outer heel — and the work along the outer edge of the thigh. A good Shin Loop supports a good Outer Spiral, and vice versa: and both are vital for proper alignment and action of the knee, along with the action of ‘Shins-In, Thighs-Out.’

As a side note in connection with this, observation suggests that most people who strongly hyperextend are not very strong in the action of the little toe and outer shin in general. Not only does the shin go ‘out’ (in reference to ‘Shins In, Thighs Apart), but the outer shin/calf muscle rotates forward as the inner knee collapses inward. For the same reason, the foot ‘sickles’ in poses such as Virasana and Upward Facing Dog pose, putting the knee at risk, for lack of action and extension through the little toe.

It’s also worth noting that this flow of energy in the Shin Loop from the outer knee/calf toward the heel is also supported by the **Plantaris**, which runs from the outer part of the knee at the back, between the two heads of the Gastrocnemius and down to the inner heel. It plays a role in propulsion, or ‘pushing off’ with the foot, but is a relatively weak and therefore minor muscle. It is felt in the overall flow of energy in the Shin Loop, though, and contributes to this ‘spiraling’ motion of the Shin Loop.

All of these points regarding the Shin Loop are extremely important because they greatly support and protect the knee – one of the most vulnerable and frequently injured joints – in all classes of poses, especially hip openers, in which the knee is particularly at risk.



### The Plantaris

When ‘pushing off’ with the foot to engage your arches and calves, the Plantaris supports the ‘spiraling’ of the Shin Loop, drawing from the outer knee toward the heel

## THE HEELS

All of this takes place in conjunction with the actions of the Ankle Loop; likewise, there is an effect on the heel:

1. The **Ankle Loop**, as we've seen, grounds the outer heel down as both Loops work together (at the meeting of the bottom of the shinbone and the talus bone) to turn the top of the ankle out enough to align the talus bone and heel as the inner arch is lifted.
2. The **Shin Loop** creates a muscular lift at the inner heel, lifting the inner anklebones away from the heel and aligning the bones of the lower leg. This comes especially from the lift of Tibialis Anterior — the front of the Shin Loop.

In this case, while the Shin Loop lifts from the inner ankle toward the outer knee, complementing the Outer Spiral. Weight is balanced between the big toe mound and outer heel.

**Yet we still need to ground down through the inner heel. How?**

3. This **grounding of the inner heel** comes from the **Inner Spiral**, an energetic spiral that moves upward *from* the grounding of the inner heel *to* the inner thighs and hipbones. There is always the risk that in the process of grounding with the Inner Spiral, the knee and leg will turn inward, collapsing the arch and inner knee.

The **Ankle and Shin Loops** serve to create the energetic lift and resistance to prevent the collapse of the inner knee and ankle that would come from simply rotating the thigh inward to create the Inner Spiral. Yet without the balance of a grounding of the inner heels with good Inner Spiral, there is the risk that these Loops will turn the leg outward, sickling the feet and creating 'bowlegs.'

The **simple point** is that while working with the Loops – in this case, Ankle and Shin Loop, we need to **maintain a good Inner Spiral**, grounding through the inner heel to keep the groins soft and deep and sacrum balanced and open. These Loops work in **dynamic opposition** to the Inner Spiral because the actions of the Loops in the lower body are more closely related to the actions of the Outer Spiral.

In **summary**, when working with the feet, keep extending back and down through your inner heels (Inner Spiral) even while working with the Ankle Loop and Shin Loop to create a lift at your inner ankles and firmness and support at your inner knee.



# TO FEEL THIS ACTION OF THE SHIN LOOP

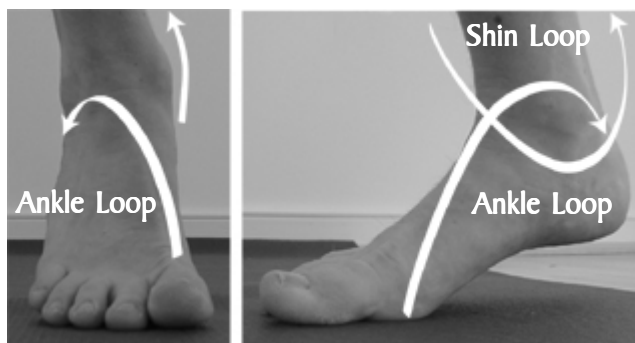
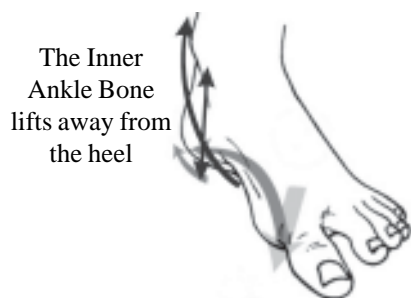
## DOWNWARD FACING DOG POSE:



Take Dog Pose. The illustration above shows the feet with ankles collapsed in an attempt to bring the heels to the floor. The lack of an Ankle and Shin Loop creates compression at the fronts of the ankles (evident from the wrinkles) and overstretching at the back of the ankle.

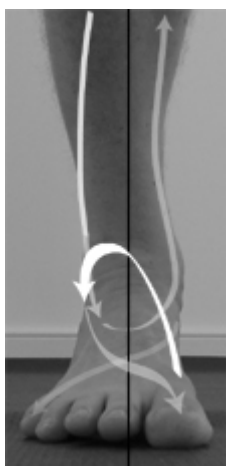
To balance the opening of the joint (assuming that the same thing happens to your ankles to some degree), bend your knees slightly, while also lifting your heels away from the floor somewhat.

1. Lift your toes, bringing your weight to the balls of your feet – especially the big toe mound – to initiate the **Ankle Loop**, drawing energy up through the tops of your feet toward the base of the shinbone, taking the base of the shinbone back.
  - a. Feel how as you initiate the Ankle Loop in this way, the fronts of your ankles draw up – and the fronts of your shins harden as well.
2. Press through the mounds of your big toes ('step on the gas') while lifting your toes slightly, to engage the muscles in the middle of your calf, initiating the Shin Loop. Spread your toes and extend out through your little toes as well.
  - a. While continuing to push through the mounds of your big toes, stretch back through your outer heels, so that your arches are strong and lifted and your calf muscles are firm and resisting. Keeping that firmness, resist the temptation to simply push your heels down to the floor.

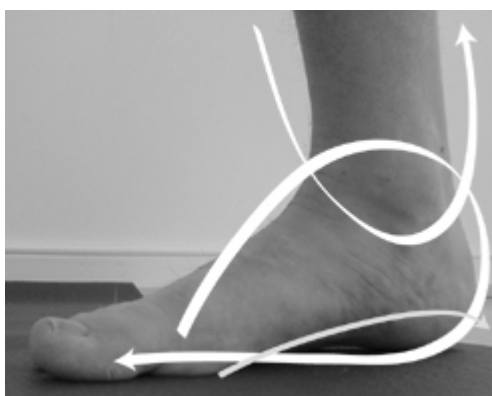


1. Lifting the toes as well as the heel initiates the Ankle Loop, creating a lift at the front of the ankle - erasing the wrinkles.
2. 'Stepping on the Gas' initiates the Shin Loop through the action of the Peroneus - lifting the inner ankle - and Soleus as the base of the shinbone moves back.

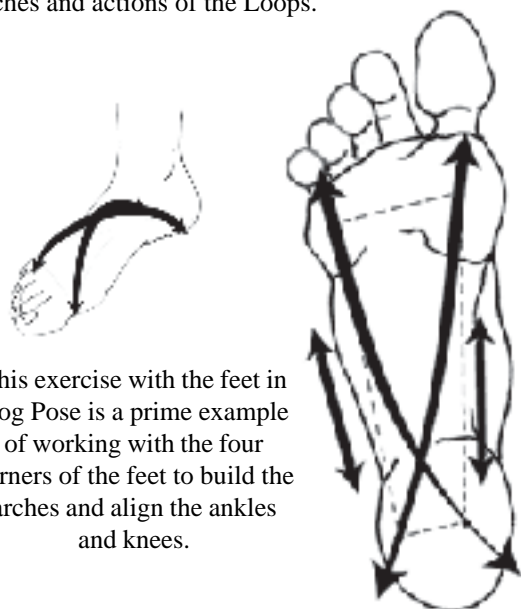




While drawing back through your inner heel with the Inner Spiral, extend out through your little toe. This firms the peroneal muscles at the outer shins in, assisting the Shin Loop, and turns the top of the ankle out, balancing the actions of the arches, until the center of the ankle/talus bone is in line with the second toe, centering the foot.



As you ground through the mound of the big toe, pushing off to lift and firm, stretch back through your heel (both inner and outer equally) while at the same time extending forward through your big toe. These two, taken together while pivoting on the mound of the big toe, maintain the firmness and lift of the arches and actions of the Loops.



This exercise with the feet in Dog Pose is a prime example of working with the four corners of the feet to build the arches and align the ankles and knees.



### 3. Watch how working with the feet and engaging your calves fine-tunes the actions of the Shin Loop:

- a. As you push off through the mounds of your big toes with your knees slightly bent, the muscles at the back of your inner knee firm, lift, and press forward, taking the top of your shinbone forward while the Ankle Loop takes the bottom of your shinbone back.
- b. As you spread your toes and extend out through your little toe, the energy of the Shin Loop flows downward at the fronts of your shins from your inner knees toward your outer shins, firming your shins in as your ankles turn out and you stretch back through your outer heels.
- c. The Shin Loop in this way complements the Outer Spiral, which turns the tops of the knees and ankles outward with the scooping of the tailbone.
- d. The Shin Loop is completed as Muscular Energy continues to draw up through the inner ankle, through the calf (especially creating firmness at the middle calf – Soleus) toward the inner knee.

### 4. As you press through your arms to stretch back through your hips, your heels progressively come back and down toward the floor without your arches collapsing. This will give you a strong stretch in the **middle** of your calves, as opposed to your feeling overstretched at the backs of your knees or Achilles tendons.

## THE THIGH LOOP REVISITED

As with the Ankle and Shin Loops, when we take a closer look at the **Thigh Loop**, we see that its actions are closely related to the kinds of rotations involved in the **Outer Spiral**.

Generally how the legs are meant to **rotate** in a pose is addressed in terms of the **Spirals**:

As we've seen, the **Inner Spiral** takes care of keeping the groins deep and the thighs broadening laterally, which is necessary for the health of the sacrum and for preserving full range of motion in the hip joint. The consequence of the Inner Spiral in terms of **rotation** is that the upper thighs turn inward and move back and apart as you anchor these actions of the legs through the inner heels.

The **Outer Spiral** creates and extension through the core of the body as well as 'opening' in the hips. The consequence of 'scooping the tailbone' for the Outer Spiral in terms of **rotation** is that the tops of the thighs, knees and ankles turn out, balancing the rotations of the Inner Spiral.

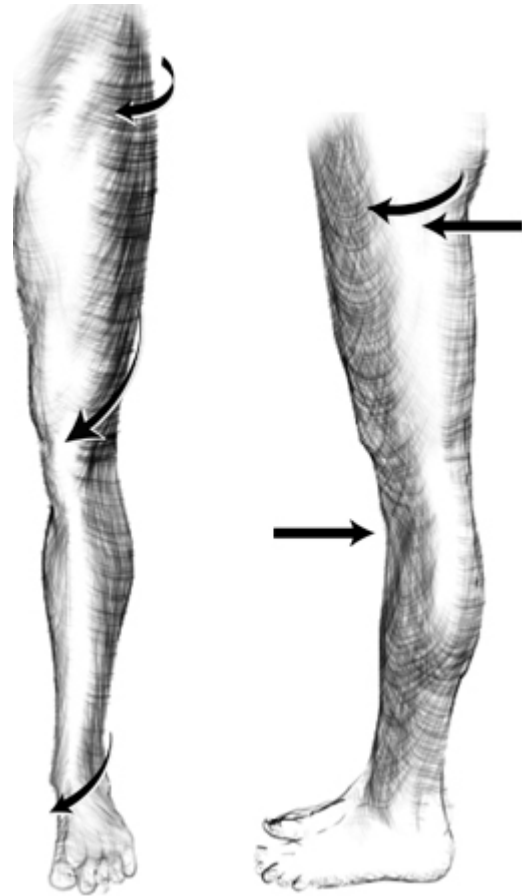
The **Loops** have more to do with balancing the actions of the muscles for extension along the core lines of the body; the **Spirals** are concerned with balancing actions of the muscles to create openings, space in the joints, and maintaining full range of motion for the limbs and spine.

Yet because the Outer Spiral is also concerned with organic extension through the core lines of the body, it has a close relationship with the Loops – particularly, as we have seen, when we look more closely at points of structural weakness or 'points of attention' the Loops address. When the Loops are refined according to the actions of the muscles involved, and with an eye to these points of attention, we find that the Loops in the lower body necessarily begin to complement the rotations of the Outer Spiral quite closely.

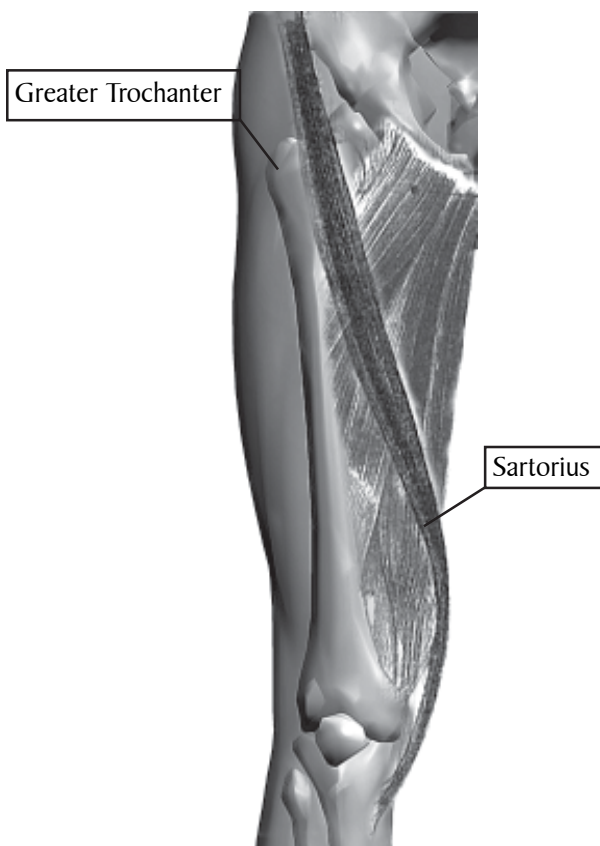
We can see the two as being complementary – and **not** the **same** – because of the way the energy flows in each. While the **Outer Spiral** flows **downward** as a **grounding** and extending or 'Organic' energy initiated by the 'scooping' of the tailbone, this downward flowing energy is **complemented** by the muscular actions of the Loops that create **lift** – the Ankle, Calf and (especially) the Thigh Loop. Every Loop of course has an Organic (downward flowing) side to it; the complex blend of muscular lift with organic softness and flow is what sets the Loops apart from the Outer Spiral. The two – the Loops and the Outer Spiral – both combine to produce a single unified result, yet they remain quite distinct in their contributions.

The active contribution of the Thigh Loop to the 'spiraling' rotation brought about by the Outer Spiral has to do with the third 'point of attention' in the lower body: the outer hip – at the Greater Trochanter – tends to turn forward as the knee turns inward and locks back, and as the inner arch collapses.

The Outer Spiral turns the tops of the thighs outward as a consequence of 'scooping' the tailbone. But this has more to do with the lift and opening of the pelvic bones and work of the upper buttocks than it has to do with any action of the leg muscles. How are the legs involved in this action of the outward spiraling of the legs? The answer comes from the Thigh Loop.



Along with the tendency of the inner arch of the foot to collapse and the knees to turn inward, the outer hip at the Greater Trochanter can tend to rotate forward, jamming the joint.



How do the thighs actually work as they turn out?

As we saw in our discussion of the **Outer Spiral**, simply to *rotate* the thighs out will jam the hips and sacrum, hardening the bottoms of the buttocks and hip rotators.

When we look to the action of the **Thigh Loop**, it's much easier to see that the action of the thighs is to draw Muscular Energy from (below) the inner knee to the outer hip. This follows the natural line of energy along the **Sartorius muscle**, which follows this path and functions as a rotator. It's also clear that most of the major muscles – apart from the adductors involved in the Inner Spiral – follow this same path toward the outer thigh and hip (e.g. vastus medialis and lateralis).

If you were to engage the Thigh Loop following this line of energy, you would find that at the upper outer thigh the muscles firm and lift in a way that turns the outer thigh (at the Greater Trochanter) back (or 'out').

Notice that this is vastly different from simply rotating the thigh out, using the hip rotators located in the buttocks. When you rotate your thighs out simply by firming and turning them, you feel a jamming in the hip joint and sacrum.

The Thigh Loop works differently. Engage the Thigh Loop by firming and drawing energy from your inner knee toward your outer thigh or hip. See how the thigh turns out from this muscular lift, without jamming the joint.

The Loops of course work in conjunction with each other. When putting the Loops together, we find there's a certain 'spin' to them in the way that they firm and create a muscular lift through the leg. This complements nicely the downward grounding actions of the Outer Spiral.

The **muscular actions of the Loops** run

From the big toe mound to outer heel with the **Ankle Loop**

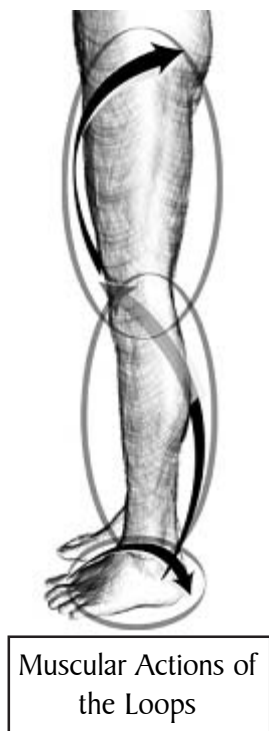
From the outer heel to the inner knee with the **Shin Loop**

From the inner knee to the outer thigh at the hip with the **Thigh Loop**

The **organic actions of the Outer Spiral** run

From the outer thigh through the back of the leg to the inner knee – turning the thigh out

From the inner knee to the outer heel – turning the shin out, particularly when you complete the organic extension by stretching out through the little toe.



## EXAMPLES IN POSES

To return to our example of **Trikonasana**, take the pose, turning your left foot in and right leg out.

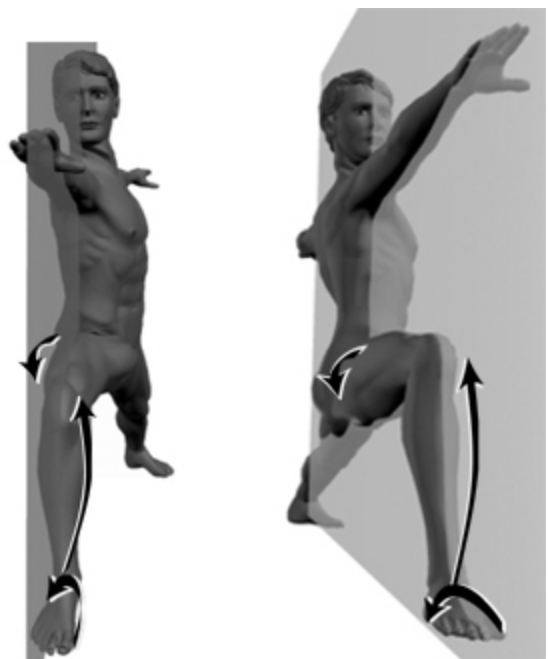
- Bend your right knee slightly: lift your toes to lift the inner arch, initiating the **Ankle Loop** and bringing weight to your heel – especially the outer heel.
- Feel how simultaneously your inner right knee lifts and moves forward as the **Shin Loop** activates, and your outer hip moves back and down (**Thigh Loop**), realigning the leg by the action of the three Loops.
- As you straighten your leg for Trikonasana, ‘step on the gas’ to keep your calf engaged, supporting the lift of your inner knee and the drop of your outer hip as you straighten your leg.
- **Notice that if you don’t maintain the Ankle Loop**, you end up doing an action more like ‘pointing your toes’ (like a dancer) rather than ‘stepping on the gas.’ This contracts the calf muscle (lifting the heel) and pulls down at the inner knee, locking it, as well as pinching the back of the ankle at the Achilles tendon. A proper **Ankle Loop** grounds the heel, maintaining the action of the Soleus and making sure that the Gastrocnemius behaves itself as you press through the mound of the big toe and extend. The moral of the story is that the Loops don’t work in isolation from each other; if one ‘reverses,’ flowing in the wrong direction, the others reverse as well. In this case a reverse Ankle Loop can lead to a reversed Shin Loop, hyperextending the knee.

### A second experience: Virabhadrasana II (Warrior) Pose

- Bend your right knee slightly: lift your toes to lift the inner arch, initiating the **Ankle Loop** and bringing weight to your heel – especially the outer heel.
- As you continue to bend your right knee to come into the pose, feel how your inner right knee lifts with the Shin Loop, and your outer hip drops down (Thigh Loop), so that your right thigh slides into place as you bend your knee, keeping your right heel, knee and sitbone moving in the same plane.
- If the Ankle Loop is lost, the knee tends to fall to the inside and the outer hip lifts, jamming the hip and making it difficult to bend the knee comfortably without overarching and compressing the lower back and hip.

When the leg is **not weight-bearing** (as in inversions, Supta Padangusthasana and so on), there is no resistance by which to ground the heel – and so there’s a tendency when extending the leg to point the toes, contracting both the calf and hamstring muscles rather than truly extending through the back of the leg.

- For this reason, the **Ankle Loop** has to be strongly engaged by flexing the foot and toes to extend through the heel (especially the inner heel in this case, since the inner leg tends to shorten and contract, and the foot ‘sickles’).
- Keeping this extension up through the inner heel, isometrically ‘step on the gas’, pressing up through the mound of your big toe without losing the extension of the inner heel. This engages the **Shin Loop**, firming and pressing forward at the inner knee while making it easier to engage both inner (Inner Spiral) and outer thigh (**Thigh Loop**), taking the top of the thighbone back in the joint in a balanced way, opening space in the hip.





# 6

## THE BREATH

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# THE BREATH AND THE BANDHAS IN ANUSARA YOGA

Asana and pranayama are two distinct practices of yoga sharing a common thread – the breath.

Why the breath? The quality of our breath – its depth, pattern and texture – directly reflects the quality of our mind; when the mind is relaxed, open, transparent (i.e. uncluttered by thought) and one-pointed, the breath is likewise relaxed and free; in such moments we are very near to the Self. By the same token, the whirlwind of thought associated with outward concerns is an obstacle that renders the mind – and the experience of the Self – opaque. In such moments the breath likewise reflects that tension and distraction.

Just as the tone of the mind profoundly influences the quality of our breath, we can also transform the quality of our mind by changing the quality of our breathing. Nevertheless, we have to work *within* the parameters of our current breathing capacity; else we risk defeating ourselves by our own ambition. Through pranayama we can gradually expand our capacity for the breath and refine the quality of our breathing, but we cannot force it to change. Forcing the breath into a preconceived pattern currently beyond our reach is an imposition that is more typical of the ego. This misses the point and simply adds tension and distraction to our practice, taking us further from the experience of yoga rather than closer to it.

Freedom of the breath grants the openness and clarity of mind that awakens us to the experience of the Self. The practices of asana and pranayama bring us progressively toward this experience. The practice of pranayama relies upon the elements of asana (posture) for its full effectiveness. There are likewise elements of pranayama present in an asana practice – yet the two practices cannot necessarily be collapsed into one. Although they share the same *ultimate* goal and a common means, their more *immediate* goals and purposes are different enough in principle to make them divergent in their execution. Asana and pranayama practice both seek to realize the fullness of the breath, to release tensions and obstacles that limit the breath. Yet each practice seeks to do so by means that are *appropriate* to the body's activities in the practice.

**Asana** practice brings freedom to the breath by **moving** the body with the breath to release limiting tensions and provide support for full and unrestricted breathing. **Pranayama** makes use of this increased freedom of the breath; but by contrast, pranayama refines our Self-awareness by **stilling** the prana (the energy or life force behind the breath), using practices that focus *entirely* on the breath, bringing depth and regularity to the breath *apart from* any significant physical movement. In other words, asana practice *moves* the prana with the body as a precondition for stilling it; pranayama coaxes the prana into profound stillness.

The essential practice for generating *prana*, the power of the breath, is the practice of the *Ujjayi* breath, while the bandhas are meant to contain, clarify and direct this energy, bringing it to a place of stillness within. Because the practices of asana and pranayama work with the prana differently, the practice of the *Ujjayi* breath and use of the bandhas is different in each, and has different immediate effects.

# The Ujjayi Breath

Ujjayi itself literally means “victoriously uprising” or “victory from expansion,” which refers to the expansion and movement upward of the energy of the breath – the *prana* – through the core of the body. Though the Ujjayi breath has these qualities of ascension and expansion, the effect of the breath is powerfully internalizing in a way that brings steadiness and tranquility.

The effect of Ujjayi breathing is to *internalize* our awareness – because it draws our attention to the power *behind* the breath that moves breath and asana as one – the *prana*. The *quality* of the Ujjayi breath as the focus of our attention likewise a gauge of the quality of our attitude and action in the asana as well. If we are struggling with the posture and trying to impose something that doesn’t yet fit, the breath tells us so; if we are disengaged, going through the motions and not fully present, the breath tells us so; if we are calm, centered and in the heart, relishing the pose, the breath will move with the calm power of the sea and the pose will seem to throb, even shine with the force of the *prana* behind it.

Ujjayi breathing has two distinctive characteristics:

1. The action or use of the throat to produce the **Ujjayi ‘sound’**
2. The effort to maintain **evenness of flow** of breath from beginning to end of each breath – both on the inhalation and exhalation, breathing through the nose.

The **Ujjayi sound** is made by toning the throat and epiglottis – the vocal diaphragm – as if you were whispering the sound of ‘haaaa’ in the throat – a breathy sound like the one made when you fog a mirror with your breath.

The **point** of making the sound is not really the sound itself. To produce the sound, you must open the vocal diaphragm, creating a ‘doming’ effect at the back of the throat (much like when you yawn), even while you narrow the passageway for the breath as you produce the sound. This brings the breath to the back of the throat and activates the diaphragm, particularly at the back body in the area covered by the Kidney Loop corresponding to the diaphragm.

- For comparison, take a breath in through your nose, so that you hear the breath moving through your nostrils. Notice how the action of breathing is more in the chest, and there’s a feeling of ‘pulling’ the breath in.
- Now, take an Ujjayi breath, bringing the sound into the back of your throat with the sound of ‘haaaa’ as you breathe in. This quiets the movement of your breath through within your nostrils so there is spaciousness and silence – no pulling or ‘sniffing.’ See how the action of breathing is much more in the diaphragm, with more of a feeling of expanding and *being* filled with the breath rather than ‘pulling’ at it. This even, expansive quality of breathing with the diaphragm is the essence of what is practiced through the Ujjayi sound. You can make the sound subtler and subtler, so there is no feeling of strain in the breath, while maintaining this quality.

The purpose of the Ujjayi sound itself is to attune your awareness to each breath, putting you in immediate touch with its quality and texture while breathing more deeply. Producing the Ujjayi sound does introduce some resistance, but only to encourage the diaphragm to work more efficiently. With this, you develop your ability to breathe smoothly and continuously, progressively opening each part of your torso to the breath with a smooth transition, so there is no ‘jerkiness’ or irregularity to the breath.

## THE UJJAYI BREATH IN ASANA PRACTICE

Asana practice brings us to discover the core strength of the body; this core strength provides not only the needed support for our physical life and health, but is the avenue for the power of meditation. Yet its strength lies in its softness and openness to the breath, just as the softness at the core of a great tree allows for the powerful movement of sap within a tree, from its roots to its highest branches. The dynamic relies upon the muscular strength and stability of the outer body for the organic softness and freedom of the inner body. The asanas are all the more powerful for this, while yet expressing a joyful ease, and are steady and comfortable in the way that Patanjali intended when he described asana as having these qualities.

The principles of Anusara Yoga outlined in this book bring us to this place of strength, comfort and ease, and do so by opening our core with the support of right Attitude, Action and Alignment. And the more we open our core in and through the asana, the more freely, effortlessly and easily we breathe, encouraging deeper states of awareness. This core is the root of both asana and breath; and the tension with which we struggle in the outer body and breath is quite often (if not always) a symptom of tension at the core. Our treatment of the psoas earlier in this book offered a practical contemplation of this truth. To refine and deepen our experience of asana and of the breath, attention must be given to softening and releasing our core with the help of the principles, granting freedom to the breath, and then to the breath itself.

Our work with the principles – particularly the Loops – leads directly to the opening of the core, and we have treated the relevance of the Loops to the freedom of the diaphragm and overall depth of the breath, particularly in relation to the psoas. With this foundation, we can breathe with greater fullness and awareness in the asanas and apply the classic techniques of the bandhas with a greater sense of integration, ease and purpose.

### HOW TO COORDINATE THE BREATH WITH MOVEMENT IN ASANA

In the asanas, generally it is best to breathe through the nose on the inhalation and exhalation when possible, and with a gentle Ujjayi sound. Breathing through the nose warms and filters the air before it reaches the lungs. Moreover, it affords greater control over the breath, encouraging the diaphragm to work more fully and efficiently on the inhalation, and allows one to engage the breath on the exhalation, using its prana to move more deeply into the asanas with greater power.

The breath is like a river; when constrained by a dam it builds strength and can then be released with focused power to turn turbines, generating electricity. The prana, too, when enclosed within the body by the bandhas can be sent out with focused power by means of the Ujjayi breath, like sending the breath through turbines, generating greater energy that flows in spiraling lines of prana throughout the body in a pose.

In **pranayama**, the exhalation is a process, not of forcing the breath out, but rather of progressive relaxation, extended and refined while directing the prana through the central core of the body by means of the Ujjayi breath. The practice facilitates the inner movement of prana, for the sake of slowing and steadying it, and bringing about extended periods – known as *Kumbhak* – in which the prana stills and the breath is retained while the body too is kept still.

In **asana**, the energy of the exhalation is more **actively directed** throughout the body to facilitate movement, bringing about greater power in and extension through the muscles, as well as greater expression of the heart – in the form of *prana* – in the pose. Extended periods of *Kumbhak* or breath retention are never really a goal in asana, since it is contrary to the work of the body.

## PRINCIPLES OF THE BREATH

The **inhalation** creates an inner lift and expansion within the body as the power of the breath, the prana, is collected inward. The inhalation generally corresponds to the engagement of **Muscular Energy**, and, as we shall see, is closely related to and relies upon the expansion at the core brought about through the **Inner Spiral**.

The **exhalation** drives the extension of the body with the breath as the prana expands and shines outward, even beyond the body. Thus the exhalation generally corresponds to **Organic Energy**, is related to the **Outer Spiral**, and accompanies actions in which you go more deeply into a pose with extension.

### **In general:**

- Opening, expanding, and vertical movements (movements directed upward, away from gravity) encourage and are supported by an inhalation (lifting into backbends would be included in this category)
- Closing, folding, retracting, and horizontal movements (movements outward that run parallel to the floor, such as folding into a forward bend, or going into most standing poses and twists) naturally move with an exhalation

### **Beginning and ending a pose:**

- exhale as you go into a posture
- inhale as you come out of a posture

### **While you're in a pose:**

- Inhale to lift (overcoming collapse in a pose) and prepare to go further, softening the inner body as you engage the muscles of the outer body
- Exhale to extend or go more deeply into the pose

### **While moving in Vinyasa (a linked series of poses such as the Sun Salutation):**

- Inhale as the body opens (eg. Raising your arms overhead)
- Exhale as your body closes or extends (eg. Folding forward in a forward bend, or while going into a posture)

# THE BANDHAS

## WHAT ARE THE BANDHAS?

The asanas become especially powerful when practiced with the Ujjayi breath. Yet the Ujjayi breath is not just a sound we make, nor is it an end in itself. The sound and power of Ujjayi is the result of the combined effect of the bandhas. More properly speaking, breathing with the application of the bandhas is Ujjayi pranayama, and the sound of the breath is a measure of the quality of our practice – both of the asana and of the bandhas. The end result is a more integrated, focused, centered and expressive pose that shines with the light of the heart.

The inner actions most specifically associated with the practice of hatha yoga in the original texts such as the Hatha Yoga Pradipika are the bandhas, which were clearly regarded as central to the practice of asana and pranayama. In terms of the spiritual evolution that the tantrikas intended to initiate through the raising of the kundalini energy, the practices of asana and pranayama are rather empty and pointless without the bandhas taking place at the core, and far more attention was given to the specifics of the bandhas and associated mudras than to the asanas themselves. And so we miss much in our practice of yoga by ignoring them.

The word **bandha** literally translates as ‘lock’ or closure; but by this we don’t mean a closure that stops or excludes anything in a negative sense, in the way that we would lock a door. Rather, the ‘lock’ in question is a farming term. These ‘locks’ were used in irrigation ditches to direct the flow of water to the different parts of the field at will.

On a very practical and basic level, the bandhas have very concrete physiological benefits to the body by redirecting the normal course of nature in a very significant sense. Hatha yoga is concerned not just with the tone of the outer body – the muscles, integrity of the joints, etc. – but also with the tone of the inner, visceral body – the digestive organs and all of the internal organs that maintain our life and health. We know that, particularly with age, these organs begin to ‘drop’ from gravity, with various unhappy effects, including decreased circulation and health. The physical actions of the bandhas work to maintain the lift and tone of our internal organs, ‘massaging’ them in the asanas and pranayama, keeping them healthy. The bandhas give us a way of doing the practices from the inside out, working from a deeper level.

In a more esoteric but no less real sense, the bandhas in yoga are actions in the body that direct the power of the breath or prana in service of asana or pranayama, in a way that consolidates our inner focus, and directs the power of our awareness or consciousness toward deeper states of Self-awareness. The bandhas are the bridge that allows us to move from practice on a merely physical level to practice as inner energy work.

One thing worth noting from the **analogy of the farmer’s irrigation ‘locks’** is that a lock merely **directs** – or redirects – the flow of water; it **does not actively move** or cause the movement of the water. In the same way, in yoga, the bandhas are inner actions that *direct* the subtle power of the breath or prana – which at its most refined the yogis regarded as the kundalini or flow of grace – but are *not* actions that in any sense initiate or *move* the flow of prana. We start on the wrong foot if we regard the bandhas as something that we *do to make* something – a spiritual experience or breakthrough – *happen*. Rather, the bandhas are actions by which we *participate in* and *refine* our experience of the natural flow of the breath – and by that unfolding of the breath in the body through yogic practice, our spiritual awareness is refined and uplifted, taking us into states of meditation.

The bandhas are specific actions described in the texts of yoga; when set in the context of the principles of Anusara Yoga – of Muscular and Organic Energy, the Loops and Spirals – it is easy to see that the bandhas naturally arise from the application of these principles, and can be practiced in Anusara Yoga in a way that is fully integrated with the actions of the body as a whole.

The *risk* in practicing the bandhas as *isolated* or specific actions is that they remain just that – isolated from the rest of the body, and worse, treated as things you ‘do’ to make things ‘happen,’ rather than means of moving more deeply with the flow. The bandhas, like the principles, organize and integrate the alignment and action of the body as an organic whole, transforming our experience throughout the body. Thus the keynote of the bandhas,



like the principles, is integration. If you are practicing yoga according to the principles and actions outlined by Anusara Yoga, you are already effectively practicing the bandhas. The benefit of studying and understanding the bandhas is even greater when you consciously practice them to further refine and uplift your yoga.

There are many contemporary descriptions of the benefits of the bandhas; Godfrey Devereux gives one concise description in his book, *Hatha Yoga: Breath by Breath*:

The bandhas provide the integrating structural and energetic dynamic of yoga practice...They internalize our energy, our awareness and the effect of our practice; they unify the body structurally and energetically; they unify the body and mind; and they clarify, challenge, develop and eventually release the breath. But most important of all, the bandhas generate the momentum and energy that allows us to confront and burn up our imposed limitations. They do this by containing, transforming and redirecting our energy and attention.<sup>21</sup>

This is an apt description of the effects of the Loops and Spirals of Anusara Yoga as well, since they are so closely related to the inner actions of the bandhas. The principles of Anusara are really expressions of the prana, directed through the body through the actions of the Loops and Spirals for the same purposes that Mr. Devereux describes. In our treatment here, we will look both at the original descriptions of the bandhas in the *Hatha Yoga Pradipika* as well as how they might be practiced in the context of the Anusara principles.

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<sup>21</sup> Hatha Yoga: Breath by Breath, Godfrey Devereux; Harper Collins Publishers. P. 59

# The Hatha Yoga Pradipika

And so we will look at the bandhas as presented in the Hatha Yoga Pradipika at first, and then look beyond their original presentation to understand them in a way that is relevant to our practice and purposes.

## UDDIYANA BANDHA<sup>22</sup>

Uddiyana is so called by the Yogis, because by its practice the Prana Vayu flies (flows) in the Susumna. 54.

Uddiyana is so called, because the great bird, Prana, tied to it, flies without being fatigued. 55.

The belly above the navel is pressed backwards towards the spine. This Uddiyana Bandha is like a lion for the elephant of death. 56.

The portions above and below the navel should be drawn backwards towards the spine. By practicing this for six months one can undoubtedly conquer death. 58.

Of all the Bandhas, Uddiyana is the best; for by binding it firmly liberation comes spontaneously. 59.

## MULA BANDHA

Pressing Yoni (perineum) with the heel, contract up the anus. By drawing the Apana thus, Mula Bandha is made. 60.

The Apana, naturally inclining downward, is made to go up by force. This Mula Bandha is spoken of by Yogis as done by contracting the anus. 61.

Pressing the heel well against the anus, draw up the air by force, again and again till it (air) goes up. 62.

Prana, Apana, Nada and Bindu uniting into one in this way, give success in Yoga, undoubtedly. 63.

Going up, the Apana enters the zone of fire, i.e., the stomach. The flame of fire struck by the air is thereby lengthened. 65.

In the center of the body is the seat of fire, like heated gold. There is a long thin flame in this fire. It is gastric fire. These, fire and Apana, go to the naturally hot Prana, which, becoming inflamed thereby, causes burning sensation in the body. 66.

The Kundalini, which has been sleeping all this time, becomes well heated by this means and awakens well. It becomes straight like a serpent, struck dead with a stick. 67.

It enters the Brahma Nadi, just as a serpent enters its hole. Therefore, the Yogi should always practice this Mula Bandha. 68.

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<sup>22</sup> These quotes from the Hatha Yoga Pradipika come from the edition translated by Pancham Sinh, Munshiram Manoharlal Publishers, New Delhi 1992, p. 37-40

## JALANDHARA BANDHA

Contract the throat and press the chin firmly against the chest. This is called Jalandhara Bandha, which destroys old age and death. 69.

It stops the opening (hole) of the group of the Nadis, through which the juice from the sky (from the Soma or Chandra in the brain) falls down. It is, therefore, called the Jalandhara Bandha -the destroyer of a host of diseases of the throat. 70.

In Jalandhara Bandha, the indications of a perfect contraction of throat are, that the nectar does not fall into the fire (the Surya situated in the navel), and the air is not disturbed. 71.

The two Nadis should be stopped firmly by contracting the throat. This is called the middle circuit or center (Madhya Chakra) 72.

## An Anusara Exploration of The Bandhas

### UDDIYANA BANDHA

Uddiyana Bandha is given special importance among the bandhas, though the treatment of it is brief. *Uddiyana* means ‘flying upward.’ This bandha involves movement of the muscles of the stomach and especially the muscles of the diaphragm. While performing it, the pit of the abdomen at the center of the solar plexus is drawn in and up (as well as a toning and lift taking place at the lower abdominals). Through the action of the bandha the prana is drawn up into the heart, creating an inner energetic lift that supports the body structurally as well as energetically.

The simple description given of Uddiyana Bandha in the *Hatha Yoga Pradipika* as one of the ten *mudras* is as follows: “The belly above the navel is pressed backwards towards the spine (56)... The portions above and below the navel should be drawn backwards towards the spine. (58)” It’s worth noting that although Uddiyana Bandha is often taught – particularly as a cleansing technique – at the end of an exhalation, no mention of this is given here in the *Hatha Yoga Pradipika*.

This description, as with all of the bandhas, leaves much to be interpreted and explained on many levels.

Uddiyana Bandha is not an action *of* the abdomen, but an inner action that exerts its effect *on* the abdomen, so that the (lower) abdomen draws in and up – paradoxically enhancing, rather than contradicting, the action of the diaphragm as you inhale.

*Uddiyana* means ‘flying upward.’ Through the action of the bandha the prana is drawn up into the heart, creating an inner energetic lift that supports the body structurally as well as energetically. The practical physiological effect of this bandha is to provide muscular support for the sacrum and lumbar spine while toning and neutralizing the psoas muscle. The simultaneous downward anchoring at the sacrum [Pelvic Loop] and lift at the back ribs [Kidney Loop] with the inhalation creates a ‘negative pressure’ in the thoracic cavity that actually encourages the diaphragm to work more efficiently, because the lungs themselves are anchored as they are stretched and opened by the action of the chest and diaphragm.



Without this anchoring, it's easy to become a 'chest-breather,' using the front chest for the breath while using the diaphragm only minimally; by the same token, if there is no expansion at the back body from the action of the diaphragm, it is just as easy to become a 'belly-breather,' not using the full capacity of the diaphragm or chest. Uddiyana Bandha is an *inner* action, *aligned* by the Loops (primarily Pelvic and Kidney Loops, but balanced by the Thigh and Shoulder Loops) and *initiated* by the breath, which makes full use of the diaphragm while bringing the breath fully into the chest as well.

Uddiyana Bandha is intimately connected with the breath, via the actions of the diaphragm and chest. Inwardly this creates a 'negative pressure' – a feeling of 'suction' – in the thoracic cavity. For example, take your arms up overhead while inhaling fully; you'll feel a very natural drawing in and up of the lower abdomen (below the navel) that draws the abdominals back toward the spine with a kind of 'suction' as the rib cage expands with the breath.

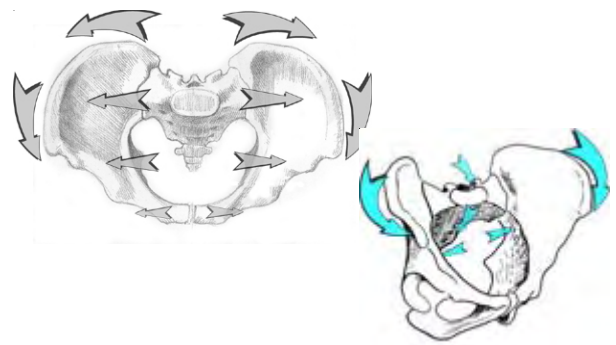
Truly speaking, the central abdominal muscles are not hardened or pressed back against the spine, because that would defeat the breath by limiting the downward movement of the diaphragm. Instead, the muscles engaged in Uddiyana Bandha are *behind and above* the abdomen. The abdominal wall and inner organs are drawn in and up, but this is a more passive response to the lengthening of the torso with the Loops. The abdominal muscles tone from the action, but are more participants than leaders in the action.

Uddiyana Bandha, particularly when initiated with the inhalation, can be set in the context of the following principles. Each principle is a necessary step in initiating Uddiyana Bandha.

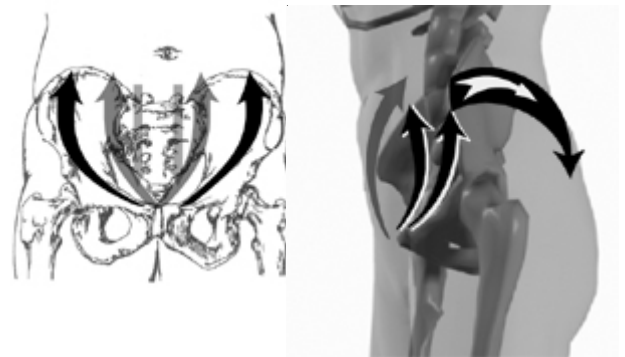
**Inner Spiral** – the *expansion* of the bowl of the pelvis brought about by the lateral expansion of the thighs (Thighs-Apart) with the Inner Spiral is really quite *crucial* for a full and deep *inhalation* and the arising of Uddiyana Bandha. The Inner Spiral opens a greater space in the Pelvis and pelvic floor, deepening the experience of the breath.

**Outer Spiral / Pelvic Loop** – our **emphasis on the breath** here as the way of initiating Uddiyana Bandha subtly **alters our experience of the Outer Spiral / Pelvic Loop**. As you inhale with the full use of your diaphragm, you expand first at your back body [Kidney Loop]. The tailbone 'scoops,' not simply as a muscular act of firming at the top of the buttocks and lengthening down from the waistline (though this does remain true as a way of actively initiating the Outer Spiral / Pelvic Loop). The lift of the upper body with the breath initiates a lift in the bowl of the pelvis from a 'negative pressure' created by this upward draw of the breath.

This inner lift, which feels like a hollowing, a lengthening, a toning and even a stretch of the lower belly (below the navel) is *initiated* by the inhalation with the diaphragm. This lift feels like a subtle but tangible lift at the front of the sacrum that lengthens through the tailbone organically, rather than a muscular action at the back body that more actively lengthens it. The lift takes place behind the abdominal organs and around the inner rim of the pelvis, even lifting the front tips of the hip bones and opening them back, as we have already seen in describing the Outer Spiral / Pelvic Loop.



With the **Inner Spiral**, the pelvis broadens from back to front, expanding the bowl of the pelvis as the sitbones move back and apart with the action of the thighs spiraling in and pressing back and apart.



With the **Outer Spiral**, there is a lift at the inner rim of the pelvis, both at the front of the sacrum and to the inside of the hipbones, from the scooping of the tailbone. Along with the expansion of the pelvis from the Inner Spiral, this creates a 'negative pressure' in the pelvis, allowing the core to be drawn upward by the breath with the action of the Kidney Loop.

The difference is that in this description, the Pelvic Loop happens from the inside out. Rather than being initiated by the muscles around the sacrum and the lower (transverse) abdominals (which can be done too strongly, ‘jamming’ the sacrum and hardening the groins), the inner lift of Uddiyana Bandha is *initiated by the breath* and *supported* by the toning of the muscles of the lower belly and active ‘scooping’ of the tailbone that are distinctive of the Outer Spiral / Pelvic Loop. These muscular actions are not incidental or secondary, however, because they *further* support the *greater* expansion of the breath with the Kidney and Shoulder Loop by providing a firm foundation in the lower body.

The lift created by Uddiyana Bandha, the ‘flying upward,’ is felt at the very visceral core of the body. Though the lower belly draws in, back toward the spine, and up, one doesn’t bring this action about by firming the abdominal muscles (Rectus Abdominus) and pressing in to create the lift. Uddiyana is a softer, deeper, and more powerful action that does not involve muscular hardening or tension in the abdominal or pelvic region, which nevertheless asks the support of the muscles of these regions, following the lines of the Loops.

**Kidney Loop** – As we’ve seen, with the breath comes the Kidney Loop. The opening created by this broadening and lift of the lower ribs creates a negative pressure in the torso that strongly encourages the full expansion of the diaphragm at the back body.

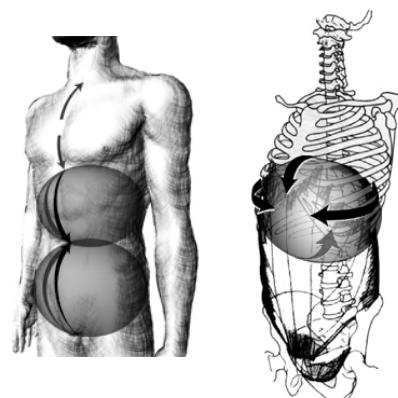
This is *not* to say that the Kidney Loop precedes the Pelvic Loop; what we’re saying here is that the breath or prana initiates the lift and extension of the inner body, and we actively participate by initiating the Loops with muscular actions to support this inner lift. In the active sense, the Pelvic Loop does precede the Kidney Loop, and supports the full expansion at the kidneys or ‘puffing’ of the kidneys that is distinctive of the Kidney Loop.

Along with this expansion at the *back* body with the action of the diaphragm, there’s a corresponding toning of the Solar Plexus at the *front* body that keeps the breath centered right at the core. This action at the Solar Plexus anchors the base of the sternum so that the chest can open fully to the breath with the Shoulder Loop.

**Shoulder Loop** – the lift and expansion created by the Kidney Loop has to be completed by the Shoulder Loop, or else one ends up rounded forward in the upper back, with the breath ‘stuck’ at the midchest. The Pelvic and Kidney Loop provide the foundation for the Shoulder Loop; the actions of the Shoulder Loop open and expand the top chest, continuing the inner lift so that the breath expands in the body from back (diaphragm) to front (Sternum / collarbones), lengthening and releasing any tension in the neck. The **natural result** is **Jalandhara Bandha**, to complement and contain this lift and expansion from Uddiyana Bandha.

Particularly because of the actions of the Kidney and Shoulder Loop, it’s easier to see that the muscles being activated are **in the chest and behind the abdominals**, the muscles involved in a full and deep inhalation; the abdominal muscles are not acting to create the bandha, but are being acted upon by this lift. The abdominals certainly do tone, and even engage in poses that require it, such as arm balances like Bakasana; but this engagement *follows* upon Uddiyana Bandha as it creates this inner space and lift, *rather* than being the *cause* of the bandha. The abdominals shouldn’t initiate a positive pressure in the abdomen that hardens or grabs against the spine.

To summarize, the *feeling* of Uddiyana Bandha is that the abdominal cavity, from the lower belly to the lower edges of the ribs, is drawn upward to feel long, hollow and open. From the outside, Uddiyana Bandha looks as if the lower abdomen is being firmed, drawn in and up.





**In terms of the actions of Anusara Yoga**, Uddiyana Bandha encompasses the Pelvic and Kidney Loops, and is actively supported by

1. Firming the lower abdomen (involving the transverse abdominals), drawing in and up to support the lengthening of the tailbone in the **Pelvic Loop** – all of which provides lift and support to the lumbar spine.
2. ‘Puffing’ the Kidneys – i.e. breathing into and expanding the diaphragm at the back body – with the **Kidney Loop**, which is supported by the toning and lift of the lower abdominals with the **Pelvic Loop**, as well as the toning and downward draw of the Solar Plexus with the Kidney Loop. In other words, the base of the sternum and the pubic bone are ‘drawn’ toward the navel with the actions of the abdominals and diaphragm (without distorting the natural curve of the lumbar spine).



### THE EXHALATION IN ASANA AND PRANAYAMA

The subtle art of Uddiyana bandha becomes most evident with the **exhalation**. For upon exhaling, if we simply release the bandha, the belly collapses downward and the upper body deflates. The breath does go out; but the feeling is dull, deflated and even unpleasant. When exhaling, the diaphragm presses upward to expel the breath, and should continue to be supported by the abdominal region with Uddiyana bandha so that the breath goes out in a gradual, comfortable flow without any feeling of collapse, as the rib cage gradually relaxes upon the firm upward press of the diaphragm.

If you ‘hold’ the bandha too firmly, you feel a gripping that limits the breath and makes you feel hard and anxious or constricted inside; if you ‘let go’ of the bandha too quickly, you feel deflated. The feeling of a balanced exhalation is that the upper body seems to relax and drape upon the firmness of the core – the firmness at the center of the diaphragm – like a cloth floating down and draping upon a pillar. Ultimately the pillar – the firmness of the diaphragm – releases and relaxes too for the next inhalation.



In this description, from the **outside** it looks and feels as if you are exhaling from top to bottom – releasing the breath from the top chest, to midchest, to diaphragm and belly. But internally, the exhalation initiates from the action of the diaphragm pressing upward, and the upper body relaxes downward upon that action. This action keeps the energy of the Prana (inhalation) and Apana (exhalation) merged in the heart,<sup>23</sup> rather than allowing the feeling of the exhalation to drop back down into the pelvis with a feeling of heaviness and collapse. As Uddiyana is maintained through the exhalation, this also supports the organic extension through the core of the body with the action of the Loops, since Uddiyana bandha is at the heart of the Pelvic and Kidney Loops.

Uddiyana bandha is the key bandha, for it triggers the other two bandhas spontaneously. It creates the length and breadth of the torso necessary for full and complete breathing, and powerfully moves the prana.

<sup>23</sup> A more complete explanation of Prana and Apana will be given in the section on Mulabandha.



## ISOLATED PRACTICES OF UDDIYANA BANDHA:

Classically Uddiyana Bandha is first taught in a standing position. This is a stronger practice that overlooks maintaining the natural upright posture of the spine with its natural curves in order to more clearly experience the actions of the bandha itself.

The point of presenting these practices here is to give a distinct, strong and focused experience of the feeling of Uddiyana bandha, as well as an introduction to the way in which you find it taught in yogic texts. The applications here are abstracted from how the bandha is practiced in asana, but they do give a good experience of how the bandha comes into play in pranayama.

### **A simple practice, following the natural course of the breath:**

- Stand with your feet slightly wider than hip distance apart, your knees bent and your hands on your knees.
- Round your back, rounding your shoulders forward so that you can support the weight of your upper body through your arms – with your hands on your knees – so that your abdomen is free to move.
- Inhale deeply, breathing into your ribs at your back body so that your back rounds and your belly (particularly at the Solar Plexus) draws in from the suction created by the expansion of your chest. To feel this action especially strongly, at the top of your inhalation, close your throat – tipping your head forward – and expand your ribs even more, as if inhaling. Feel the strong inward and upward pull at the center of your diaphragm.
- As you exhale, release your throat and lift your head slightly to open your windpipe; firm your abdominals to maintain the lift at the center of the diaphragm that you just created with the inhalation. Your navel presses back toward your spine; but more than that, you firm at the center of your solar plexus, pressing in and up at the center of your diaphragm as you steadily relax your rib cage to exhale your breath.
- This action of Uddiyana Bandha on the exhalation firmly supports the natural action of the diaphragm with the exhalation, as the diaphragm presses upward to expel the breath. This is the final stage of Uddiyana Bandha, which keeps the breath (the prana) centered in the heart, rather than dropping the belly and collapsing the chest.
- In order to inhale once again, Uddiyana Bandha must be gently released (without collapsing the inner firmness and lift you have created) so that the diaphragm is free to draw downward and expand to initiate the inhalation. The belly will be drawn in and up in Uddiyana Bandha once again as the breath fully expands.

The above method follows the way Uddiyana Bandha is practiced in pranayama, with Uddiyana Bandha performed while retaining the breath inside in Kumbhaka. Classically the following method is practiced for doing Uddiyana Bandha on its own:

### **The classic practice of Uddiyana Bandha:**

- Following the outlines of the practice given above, Uddiyana Bandha is performed at the end of the exhalation, after pushing out the breath with the diaphragm and abdominal muscles, while still keeping the ribs somewhat lifted and expanded.
- After exhaling completely, close your throat so that no breath comes in, yet work your chest as if inhaling. This sucks the diaphragm and solar plexus in and up very strongly, and the navel is pulled upward – and the muscles of the stomach are passive in this action. The more relaxed the muscles are, the better the bandha.

- Classically one retains this action without inhaling for some time – and this is a very strenuous practice, which demands that you remain very relaxed inside even while performing this hard work.
- When you feel the urge to inhale, gradually relax these actions of the chest and abdomen, and breathe in smoothly and in a relaxed way. Don't inhale before bringing the muscles of your abdomen and chest to their original state. The proper duration for the bandha is the time for which it can be retained comfortably but firmly after exhalation and without inhaling. Inhalation should not be immediate after releasing the bandha, and the inhalation should be done in a controlled way, without gasping.

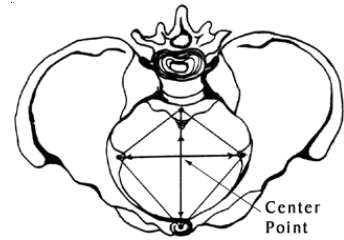
Since this is a strenuous practice, it shouldn't be practiced by those suffering from stomach ailments, heart troubles, circulatory problems or hernia.

### **The Physical Effects of these particular practices of Uddiyana Bandha:**

The diaphragm is strongly worked and exercised in these practices of the bandha, which promotes more efficient breathing. Also, the organs in the stomach are worked by the negative pressure in the abdominal cavity in this bandha, improving the circulation to these organs through a 'squeeze and soak' action similar to what takes place in twisting. This improves the efficiency of the abdominal organs and also improves the secretion of the digestive juices, and so improves digestion. The heart is also massaged and worked.

# MULABANDHA

Mulabandha or the ‘Root Lock’ derives its name from ‘mul’ which means ‘root’ or ‘base. This ‘base’ is center point at the base of the pelvis, at the perineum, which is halfway between the root of the sexual organ and the anus. The bandha also relates to the Muladhara Chakra, where the entrance to the Sushumna nadi lies. The bandhas – particularly Mulabandha – are meant to direct the energy of the mind and breath – the prana – into this subtle inner passage to initiate the inner journey of meditation.



The simple description given in the *Hatha Yoga Pradipika* is as follows:

“Pressing the Yoni (perineum) with the heel, contract up the anus. By drawing the Apana thus, Mula Bandha is made. The Apana, naturally inclining downward, is made to go up by force. This Mula Bandha is spoken of by Yogis as done by contracting the anus. Pressing the heel well against the anus, draw up the air by force, again and again till it (air) goes up. The Kundalini, which has been sleeping all this time, becomes well heated by this means and awakens well. It becomes straight like a serpent, struck dead with a stick. It enters the Brahma Nadi, just as a serpent enters its hole. Therefore, the Yogi should always practice this Mula Bandha.”

As with the previous bandha, this takes some explaining. The bandha has less to do with the contraction of the anus, which is a closure that helps to tone the perineum and redirect the energy of the breath, than with the energy of the breath itself. Mulabandha is an inner lift that is in truth initiated from above, with the help of Uddiyana Bandha and supported by the actions of the Loops.

As we saw with Uddiyana Bandha, the inhalation creates an inner lift through the ‘negative pressure’ created in the abdomen. This inner lift is felt in the upper body as the heart/chest expands with the inhalation; along with this, you can also feel an upward pulse at the perineum, at the base and center point of the pelvis.

When you feel this inner pulse and lift, it’s very natural to support it by firming and toning the muscles of the perineum. This action is very different from merely tightening the perineum or anus as if to ‘push’ the perineum upward. The point is to **support and direct** the energy of the inner lift or upward course of the *Prana*, not letting it fall back with an inner collapse from the downward course of the *Apana*.

Again, it is the breath that naturally initiates the bandhas, and the bandhas are brought into play to support the breath and provide a container for its power.

**In terms of the actions of Anusara Yoga**, Mulabandha encompasses the balanced actions of the Inner and Outer Spirals. The action that creates this firming at the perineum is the ‘scooping’ of the tailbone with the **Outer Spiral**, in combination with the actions of the **Inner Spiral** that open the pelvic floor by taking the sitbones back and apart.

- **Inner Spiral**: as the sitbones move back, the pubic bone is drawn toward the tailbone and the hipbones wrap forward, broadening the lower back at the sacrum while tipping the top of the sacrum forward.



With the **Inner Spiral**, the pelvis broadens from back to front, expanding the bowl of the pelvis. This happens as the sitbones move back and apart from the action of the thighs spiraling in and pressing back and apart.

– **Outer Spiral:** as the tailbone draws down (with the help of the lift at the back body created by Uddiyana Bandha on the inhalation), the muscles of the lower abdomen (in the bowl of the pelvis below the navel) tone and lift along the inner rim of the pelvic bones. The *effect* of this is a toning and lifting at the center of the pelvic floor.

By this firming through the whole rim of the bowl of the pelvis, the center is drawn energetically upward – with an actual toning and lift of the muscles that can be lightly held at the core – in the way that the wick of a burning candle draws wax upward through the wick at the center, by the burning of the flame. The pelvis itself is the vessel for this flame.

As with Uddiyana Bandha, one can actively support the inner lift created by the breath – in this case by actively toning the perineum and even contracting and lifting at the anus. But these actions are **supportive** of rather than the cause of the inner lift, which really comes with the action of Uddiyana Bandha.

Any aggressive over-tightening of the muscles in an attempt to ‘do’ the bandhas will be reflected in a gripping or limitation imposed on the breath; you feel a downward pull from the tightening this causes in the pelvis and abdomen. But if the actions described in the Hatha Yoga Pradipika accompany and support the inner lift brought about by the breath, these bandhas will even further expand and support the breath, focusing and intensifying its energy.



With the **Outer Spiral**, there is a lift at the inner rim of the pelvis, both at the front of the sacrum and to the inside of the hipbones, from the scooping of the tailbone. Along with the expansion of the pelvis from the Inner Spiral, this creates a ‘negative pressure’ in the pelvis, allowing the core to be drawn upward by the breath with the action of Uddiyana Bandha / the Kidney Loop

## THE PRACTICE OF MULABANDHA

The 13<sup>th</sup> century Natha Yogi and poet saint, Jnaneshwar Maharaj gave a more detailed description of the classic practice of Mulabandha:

Now listen. I will tell you about the perfection of the yogic posture. You should fix the calves against the thighs,

And cross the soles of the feet firmly at the base of the spine, where the muladhara chakra is,

So that the right one is below, pressing against the perineum, and the left one is resting on it freely

There are four inches between the anus and the generative organ. Leaving a space of one-and-a-half inches on each side,

Press the heel into the remaining space of one inch, keeping the body well balanced on it. Now raise the buttocks very slightly and take hold of the two ankles.

Then, O Arjuna, the whole body will be supported on the top of the heel.

Know that this is what is called the *Mulabandha* posture, otherwise known as *Vajrasana*.

In this way you establish the proper position, close the lower passages of the body, and restrain the breath within the body.

*The Jnaneshwari*, (VI 192-200)

As in this description, Mulabandha is most often practiced in a seated posture appropriate to meditation or pranayama. The posture that Jnaneshwar describes here has come to be known in our time as Siddhasana, the perfected pose.<sup>24</sup> Here, as in the original description in the Hatha Yoga Pradipika, the heel is used against the perineum really to support the feeling of Mulabandha, but is not itself the cause of Mulabandha; that's something that happens inside. In both cases, the point is to draw up the *prana* within until it 'moves upward.'

When presented in these terms, the action and purpose of Mulabandha seems somewhat remote and esoteric to the modern practitioner, especially since most elaborations on it tend to overemphasize the action of the anus. This description can lead to a rather one-sided and stressful application, as well as an interesting variety of facial expressions when practiced. Our approach to the bandha here, which focuses on the overall physiological actions and effects (particularly in asana, in the context of Anusara principles), as well as upon the inner experience of the breath in pranayama, hopefully serves to make much more sense of the practice as well as making it a more integrated action related to the other bandhas.

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<sup>24</sup> A close reading of hatha yoga scriptures will reveal a certain lack of consistency in the application of names to yoga postures relative to how they are named today – and the inconsistency remains among contemporary schools.

## THE PRACTICE OF MULABANDHA

**In Asanas:** As we attend to the actions of the Inner Spiral and Outer Spiral as the context for Mulabandha, two things come about that are of immediate benefit in the pose:

1. Toning of the muscles in the pelvic region that lift and support the lumbar spine, helping the upward extension of the spine, while toning and lengthening the psoas muscle and reducing tension in the lower back muscles and quadratus.
2. The subtler inner lift or ‘wicking’ action – the gentle upward pull at the perineum – produced especially with the breathing action connected with Uddiyana Bandha is supported by the ‘scooping’ action of the tailbone with the Outer Spiral.

**In Pranayama:** In some seated poses, when the emphasis is on the breath, the heel is used to emphasize the toning of the muscles of the perineum. This toning or firming of the muscles – whether the heel is used or not – *follows after* the inner lift, suction or ‘wicking action’ produced by the inhalation with Uddiyana Bandha, and *supports* the process of inhalation and retention. Generally Mulabandha must be softened and ultimately released in the process of exhalation and initiation of the next inhalation.

### The Physical Effects of Mulabandha:

The practice of Mulabandha tones and strengthens the muscles of the pelvic region and especially the perineum as well as increasing circulation. When practiced in the context of the Anusara principles, the actions associated with it are also beneficial to supporting, toning and strengthening the lower back as well as supporting greater mobility and opening in the hips.

### Example: Baddhakonasana

While sitting in Baddhakonasana, place your hands behind you to support an upright posture. Increase the Inner Spiral of your thighs: lift your knees slightly so that you can tip your sacrum in more deeply, increasing the inward curve of your lower back and drawing your sitbones back and apart as your inner thighs at the groins spiral inward. Keeping your heart lifted with the support of your arms behind you (Shoulder Loop), inhale into your back body at the diaphragm, and let the breath continue to expand at your chest. Feel how this naturally draws your lower belly in and up while encouraging your tailbone to lengthen downward – and feel the subtle upward pull at the center of the perineum. Support this by more actively drawing your lower belly in and up while ‘scooping’ your tailbone, and feel the firming this brings in the perineum as the pubic bone and tailbone are drawn toward each other by the combined actions of Inner Spiral and Outer Spiral. Notice that this is *not* the same as firming or gripping your buttock muscles. Also notice that the actions of the Outer Spiral / Pelvic Loop encourage your hips to open and your spine to take root and lengthen upward as you lift and open your heart.



Another example – the classic exercise of Mahamudra – is given following our treatment of Jalandhara Bandha.

### Precautions:

If the bandha is done too aggressively, it can adversely affect the digestive system. It is not beneficial to persons suffering from hernia, piles or problems related to constipation.



## Prana and Apana:

Treatments of the bandhas generally mention the movement of the Prana and Apana Vayus, as does the Hatha Yoga Pradipika. These are the two energies ('Vayu' means 'wind' or 'force') of the breath. The energy of the inhalation is the Prana Vayu, which is the upward-moving energy or inner 'lift' of the inhalation that in its fullest expression is felt in the heart. The energy of the exhalation is the Apana Vayu, which is a downward moving force that in its fullest expression (as in a hard exhalation) is felt as the heaviness and contraction of the muscles in the pelvis.

Ordinarily we swing between the two poles of prana and apana, inhalation an exhalation, rising and falling with the breath. In yoga it's understood that this dissipates the energy and spiritual potential of the breath, rather than consolidating and focusing it. If we are to find our center, the still point of meditation, these two energies must be made to merge in the center, rather than allowing them to move in opposite directions. Thus in pranayama we both encourage and contain the upward movement of the prana with the inhalation, and limit the downward movement of the apana with the exhalation, so the experience of the breath remains centered and 'merged' within the heart. As we find that steady center in the space between the breaths and maintain it, the yoga tradition goes so far as to say that the breath begins to move along a subtler, more central inner passageway known as the Sushumna, taking us into deeper states of meditation.

As an initial and more accessible experience, we can understand it in this way: with each movement of the breath – whether inhalation or exhalation – we always maintain an element of its opposite. With the lift of the inhalation, we maintain the sense of grounding that we feel with the exhalation; with the outward and downward movement of the exhalation, we maintain the sense of firmness, lift and lightness that we feel with the exhalation. In this way, instead of moving or vacillating between two entirely opposite experiences, we remain centered by experiencing the essence of both throughout the process.

Yet as we enter more deeply into this experience, more does take place: we do experience the breath as moving more deeply within, and may even feel gentle inner movement or swaying with the breath as the merging of prana and apana moves the energy of the breath along subtler channels. Because this energy increases the gastric fire, as the Hatha Yoga Pradipika describes it, inner heat may even be felt.

“Going up, the Apana enters the zone of fire, i.e., the stomach. The flame of fire struck by the air is thereby lengthened.

In the center of the body is the seat of fire, like heated gold. There is a long thin flame in this fire. It is gastric fire. These, fire and Apana, go to the naturally hot Prana, which, becoming inflamed thereby, causes burning sensation in the body.

The Kundalini, which has been sleeping all this time, becomes well heated by this means and awakens well. It becomes straight like a serpent, struck dead with a stick.

It enters the Brahma Nadi (the central passage or Sushumna), just as a serpent enters its hole.”

This last action is brought about particularly by the upward direction of energy at the center through Mulabandha. Through this process, one begins to enter the cave of the heart in meditation. The details of this process of the Kundalini are more appropriate to another work besides the treatment of Anusara principles here, so they are taken up in my book, The Heart of the Yogi.

# JALANDHARA BANDHA

It is not entirely clear why this bandha is known as Jalandhara Bandha. It's possible that the Rishi (or sage) Jalandhar may have been the first to describe and define this action, and so it came to be named after him.

In terms of the meaning of the word Jalandhara itself, “Jal” means “Net”, which in this case might refer to the net of Nadis (energy channels); the word “Dhar” means to stop or to hold the flow of the fluid (Amrit), flowing through the nadis. This fits the description of the effects of the bandha given in the Hatha Yoga Pradipika.

The simple description given in the Hatha Yoga Pradipika is as follows:

“Contract the throat and press the chin firmly against the chest. This is called Jalandhara Bandha, which destroys old age and death. It stops the opening (hole) of the group of the Nadis, through which the juice from the sky (from the Soma or Chandra in the brain) falls down. It is, therefore, called the Jalandhara Bandha -the destroyer of a host of diseases of the throat.”

**Jalandhara Bandha** is an action of the neck in relation to the chest and shoulder girdle; in a pranayama practice it is often referred to as the ‘chin lock,’ in which the chin is brought toward the chest as the chest is lifted toward the chin. Rather than closing the throat or windpipe, this actually brings about a greater opening to the breath through an adjustment that takes place in the back of the throat.

This opening results from the meshing of the Head and Shoulder Loops, which creates a lift at the Focal Point at the root of the palate. This is felt as a ‘doming’ at the back of the throat (much like what happens when you yawn). The Ujjayi sound is really produced by the redirection of the breath along the back of the throat that results from this inward lift at the root of the palate.<sup>25</sup>



## THE PRACTICE OF JALANDHARA BANDHA

**In Asana:** the clearest example of this traditional ‘chin lock’ in an asana is the alignment of the neck and shoulders in Shoulderstand. In the Shoulderstand, the chin is not meant to press entirely into the chest, particularly because this strains the back of the neck by overstretching it. Rather, the neck, head, shoulders and chest are aligned in the pose to open the throat in a particular way that directs circulation and the breath with an overall calming and internalizing effect upon circulation and the nervous system.<sup>26</sup>

In most hatha yoga poses, however, the neck is not bent in this way. More often the neck is extended, sometimes the head is taken back as in a backbend, and in some poses the neck twists as the head turns. Yet Jalandhara Bandha is still present through the actions of the Head and Shoulder Loops. The similarity lies in the way the throat is toned to create the same ‘doming’ effect at the back of the throat to produce the Ujjayi breath as we extend upward through the spine. This action assists in making the breath more diaphragmatic.

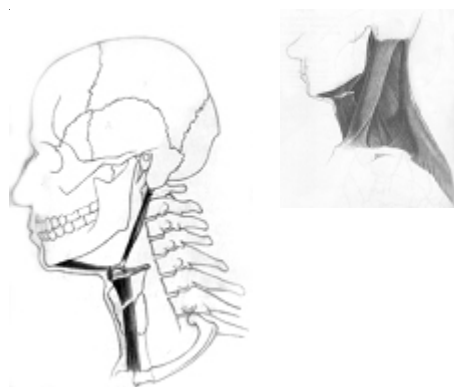


<sup>25</sup> This point becomes a **Focal Point** for balanced extension in inversions in which the head or upper body are weight bearing.

<sup>26</sup> In Shoulderstand and in practice of Jalandhara Bandha in pranayama, the forward bow of the head, by putting pressure on the vagus nerves in the throat, ostensibly enables one to better control and calm the sympathetic nervous system. By this, yogis have been known to control not just their breathing to the point of stopping it for long periods, but their heartbeat and other involuntary physical functions as well, to an extraordinary degree.

On a subtle level, this bandha keeps our energy and awareness in the practice more centered in the heart. The opposite of Jalandhara Bandha lies in our tendency to shorten and tense at the back of the neck when making an effort; in those moments, our breath and awareness go up into the head, over-stimulating the mind. Whether we regard the description of the effects of this in the Hatha Yoga Pradipika metaphorically or in terms of subtler inner processes, our youth and inner sweetness get ‘burnt up’ by this overstimulation and expenditure of mental energy.

**In Pranayama:** Jalandhara Bandha is a natural and almost unavoidable complement to the inner lift that takes place with a full inhalation. Through the muscles connected to the top of the sternum, to the hyoid bone at the top of the throat, and at the base of the head, there is an intimate connection between the lift and expansion of the chest with the inhalation, a softening and ‘opening’ of the throat, and an upward release and extension at the back of the neck. These three elements are the results of a good combination of Head and Shoulder Loops, and are key elements of Jalandhara Bandha which lead to the ‘doming’ at the root of the palate that allows for full expression of the breath, as well as the containment of its energy.



Overemphasis on the ‘chin-lock’ – particularly without a good balance of Shoulder and Head Loop – can lead to pulling the chin in, which only flattens the cervical curve of the neck, pulls and tightens the muscles at the back of the neck, and chokes or constricts the windpipe. The point of Jalandhara Bandha is not to close off the windpipe; rather it is

1. the completion of a full inhalation,
2. the ‘seal’ that allows for comfortable and easeful retention of the breath, and also is
3. a means for calming the body and mind through the pressure it places on the vagus or carotid nerve and carotid arteries in the throat.

Jalandhara Bandha is to be used during inhalation and retention, and released gently during exhalation to avoid tension as well as to allow the breath or prana to move upward through the Sushumna.

### Physical Effects:

While the ability of yogis to control physiological functions with the practice of this bandha have been documented, the exact function and effects of the bandha have not been clearly isolated or defined. The physiological explanation of its function is more in the realm of conjecture. The following description and explanation comes from studies done in an ashram in Lonavala India:<sup>27</sup>

Jalandhara bandha affects the “Vidyan Nadi” which passes through the neck. It is the only blood vessel passing below the neck. It is divided into two parts, known as Carotid Arteries, which pass from both the sides of the neck to the brain. The area where the blood vessel is divided into two parts is known as the Carotid Sinus. The wall covering the Carotid Sinus is thin and can easily get affected by inner or outside pressure. The nerve passing from here to the brain is the Carotid Nerve. It goes high up into the skull and then down into the brain. Pressure exerted on this nerve is transmitted to the brain. This pressure is exerted through Jalandhara Bandha. The brain responds by lowering the blood pressure, and the heart rate is reduced. One explanation is that the position of the bandha lessens the blood supply to the carotid artery. The reduction in the blood supply to the brain slows down the body activities and the practitioner can observe the complete stillness of body and mind.

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<sup>27</sup> [www.yogapoint.com](http://www.yogapoint.com)

But it is said that to achieve this effect, the bandha has to be practiced for a number of years. After refining his practice, the yogi can achieve states of mind wherein he forgets the outside world and even loses awareness of his own body. Most of the functions of the body are stopped and the yogi can progress towards samadhi. Yet with even a little bit of study and practice of this bandha, the yogi can achieve a calm, quiet and pleasurable state of mind devoid of any thoughts.

As a practical matter in the practice of pranayama, there is always the possibility that blood pressure may increase while performing Kumbhaka or retention of the breath. The practice of Jalandhara Bandha before retention or Kumbhaka serves to control and reduce the blood pressure. Moreover, at the time of retention or Kumbhaka, the action of ‘holding’ the breath can lead to increased pressure of the inhaled air, and the pressurized air tries to find out an escape route, and can move into the Eustachian tubes of the inner ear, behind the ear drums. The position of the neck in Jalandhara Bandha stops this air from entering the inner ear, and the eardrums are protected.

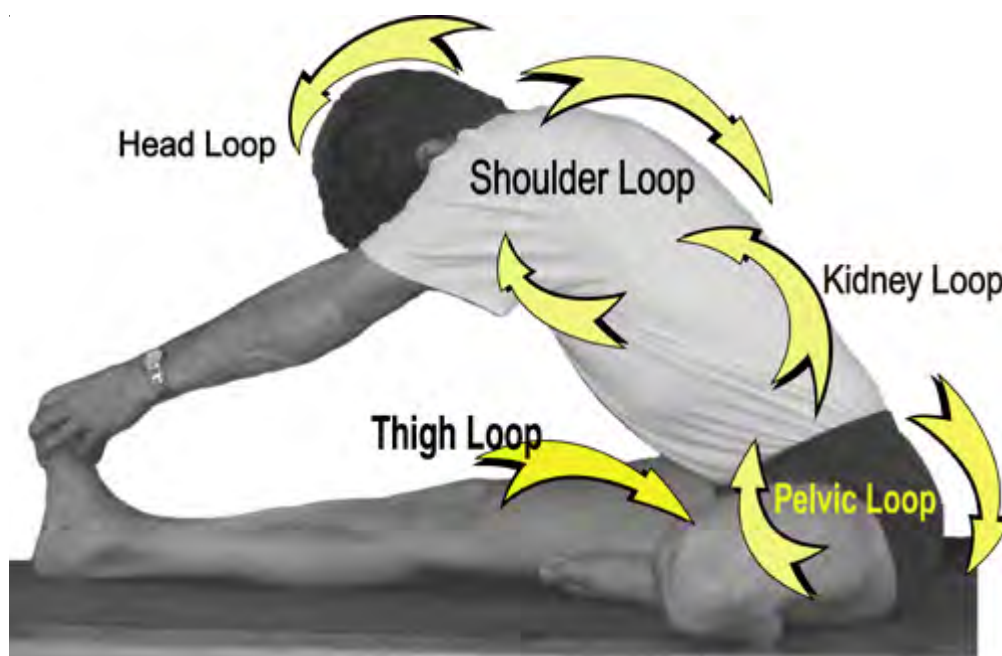
### **Precaution:**

Although the bandha exerts a regulatory effect on blood pressure, people suffering high or low blood pressure should not work with this bandha in breathing practices without supervision, particularly because one may inadvertently increase inner pressure and tension through the practice, if it is not done well.

## BANDHAS IN THE ASANAS

To summarize our approach to the bandhas so far, attention first to the principles, then to the Ujjayi breath, and finally to the subtle inner qualities of lift, expansion and extension of the bandhas that naturally follow, puts you in touch with the action of the bandhas in the poses as *support* for both the pose and the breath. The exhalation in the poses, especially as it is the power behind organic extension, actually taps into the power of the breath and bandhas while directing the force of the prana.

## MAHAMUDRA



An example of the application of the principles and the bandhas in a pose is the classic work with the bandhas in the pose Mahamudra. This is a forward bend resembling Janu Sirsasana, but the goal in the pose is not to move deeper into the forward bend, but to use the posture as a context for practicing the bandhas with the breath. As such, it is a powerful practice for isolating and understanding these actions; then they can be applied in more flowing fashion in other poses.

**To do the pose:** sit in Dandasana and stretch your legs in front of you, bringing them together. Use your hands to increase the **inner spiral** of your thighs by turning the thigh muscles inward toward the midline, so that your inner thighs descend toward the floor. Draw your buttock muscles back with your hands, so that your sit bones more easily move back and apart. This will tip your sacrum inward, helping you to sit squarely on your sit bones with your lower back firm and upright.

Bend your left knee and draw it back, placing your left foot at the inside of your right thigh, with the heel as close to the pubic bone as possible. Minimize the movement of your sit bones as much as possible during this shift, and keep your knee opened out to the side, your thigh relaxing down to the ground as the hip opens. If your left thigh is up in the air because of tightness in the hip, place a support – such as a rolled blanket – under the thigh so that it can relax down into the support.

Turn your upper body to face toward your straight leg, and readjust your straight leg with an inner spiral (using your hands to turn the top of the thigh inward toward the midline) if necessary, so that the knee and toes point straight up toward the ceiling.

Reach forward to hold your left foot with both hands. If your back rounds or your left knee bends, place a belt across the sole of your foot and hold the ends of the belt. In this pose, both your left leg and your spine should be straight.

## PRINCIPLES:

**Inner Spiral:** Firm the muscles of your straight leg thigh; draw that energy up your leg on all sides (especially along the inner thigh) and spiral the top of your thigh inward, so the inner thigh – where the thigh meets the hip – turns down toward the floor, softening the groin muscles. The bent leg thigh should spiral inwards at the groin as well, though you may need to adjust it manually. The inner spiral of the thighs allows you to tip the sacrum forward, taking you into the forward bend without rounding or strain to your lower back.

**Outer Spiral / Pelvic Loop:** without rounding your lower back, lengthen downward through your tailbone and draw your lower belly inward and upward, providing a support and lift to your lumbar spine. Feel how this action tones the pelvic floor, creating a slight squeeze in the muscles of the perineum.

**Kidney Loop:** as your lower belly tones and lifts with the Pelvic Loop, inhale and bring the energy of the breath first to touch your back ribs at the area of the kidneys. Let the diaphragm expand here with the broad expansive feeling of the breath; and let your solar plexus – from the base of your breastbone to your navel – soften downward, making you soft and receptive to the breath at the front body while broad and firm at the back body.

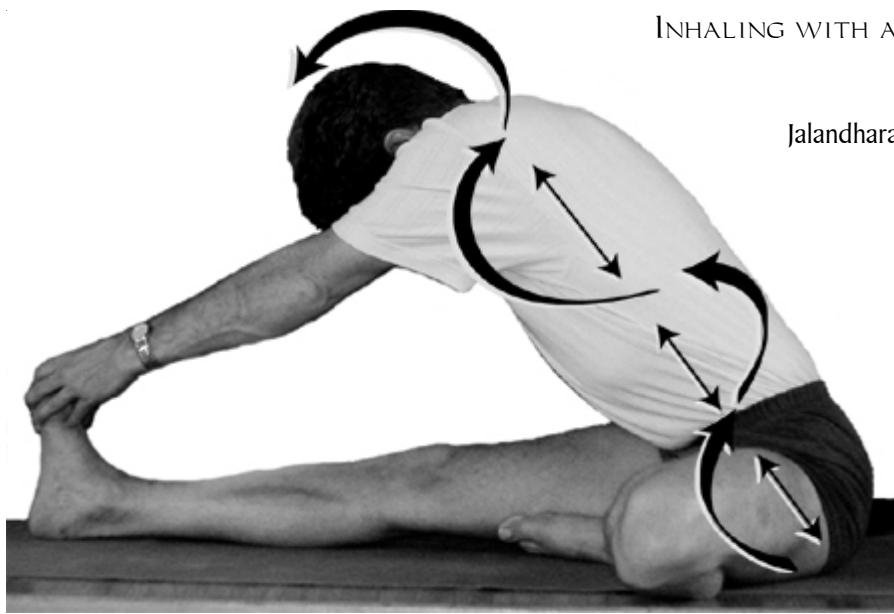
**Shoulder Loop:** lift your shoulders away from your hips to level your collarbones and lengthen the sides of your torso. With your arms straight, firm the muscles of your arms and draw that energy from your fingertips up through your shoulders and into your heart; this action draws your shoulder blades flat on your back, as if they were magnetized by the expansiveness of your heart. As you firm the shoulder blades into your back, especially firm the lower tips of your shoulder blades into the body and toward each other, lifting your heart and lifting and broadening your top chest at the sternum. (see illustrated exercise for this on p. 39)

A strong and expansive Shoulder Loop is central to Maha Mudra; it supports the extension of your spine and creates space for the strong upward lift created by Uddiyana Bandha. As your shoulders draw back and your top chest lifts and expands, your collarbones will rotate back, allowing full freedom of the breath in your upper chest.

**Head Loop:** follow the energy of the Shoulder Loop from the top of your sternum to the base of your ears; let this line of energy draw the top of your throat – where your throat meets your jaw line – back and up, from ear to ear. Lengthen through the back of your neck, bringing a noble bow to your head, so that your chin descends to meet your sternum without compressing or hardening your throat. The more you lift and move back at the top of your throat while bowing from the nape of your neck, the more space you create for the inner doming of your palate – the vocal diaphragm. This is Jalandhara Bandha.



## INHALING WITH AND THROUGH THE BANDHAS



Jalandhara Bandha: Shoulder and Head Loop

Uddiyana Bandha: Kidney Loop

Mulabandha: Pelvic Loop

As you **inhale**, each Loop is helped by the vertical lift created in the body by the inhalation; by the same token, this lift also creates the kind of ‘negative pressure’ internally that inspires the bandhas, until their completion with Jalandhara Bandha. The end result is a corresponding ‘pressure drop’ in the head, so that the mind descends into the heart as the head cools.

Particularly at the top of the inhalation, support the lift created by the inhalation by firming at the base of the pelvis by toning the muscles of the perineum as you scoop your tailbone down and forward, and your lower belly in and up (Mulabandha). Firm at the center of the Solar Plexus to support the lift at the center of the diaphragm created by Uddiyana Bandha. Bow your head forward in Jalandhara Bandha, holding the ‘doming’ at the root of the palate and gently exerting pressure on the softness of the throat as you retain the breath.

As you **exhale**, gently release Jalandhara Bandha to allow the breath to go out freely and smoothly. But keep the gentle firmness at the center of the Solar Plexus as the center of the diaphragm presses upward to expel the breath, and your ribs relax smoothly downward without collapse. Keep the tone of the lower belly with Mulabandha, not letting the belly drop, though the firming and lift at the perineum can be gently and gradually released. At the end of the exhalation, the bandhas can be released to make space for the next inhalation.

Through these actions, maintaining the key elements of the prana or energy of the inhalation, keep the experience of the breath as centered in your heart, and imagine the exhalation moving upward through the core of the body, rather than feeling a collapse downward. The exhalation should be smooth, comfortable and relaxed, without any feeling of gripping or drop.

After one or more rounds of the breath with this mudra, sit quietly to feel and enjoy the quality of both breath and mind.

# 7

## THE INNER ARCHITECTURE OF THE TEMPLE

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# THE HEART

You cannot see the Seer of seeing.  
You cannot hear the Hearer of hearing.  
You cannot think the Thinker of thinking.  
You cannot understand the Understander of understanding.  
He is your Self, which is in everything.  
Yajnavalkya, Brihad-Aranyaka Upanishad 3.4.2<sup>28</sup>

Yoga has a purpose unlike other fields of learning and practice; we delve more deeply into our yoga not just for the sake of knowing more about yoga, but really for the sake of knowing the one who is *doing* the yoga – our own Self – all the more deeply and profoundly, and in a way unlike any other form of self-knowing. The subject matter of yoga is the **Self** (as it is called in the texts of yoga), not as an object of study to be described or explained, but as a pure, unmediated, lived experience.

Yogic scriptures describe the experience of this Self as the experience of our true heart, the *hridaya*. This heart is not a location in the body, and certainly not an organ, but an experience and unique self-awareness that arises through the devotional passion to know this divine heart, the effort to know and understand through yogic practice, and through grace, the Self-revelation of the Divine. **Anusara Yoga** is a ‘heart-centered’ yoga in the sense that it honors the centrality of that devotional passion to know our divine Self and source through our practice, as well as honoring, nourishing and expressing the divine qualities of our own heart through our practice as well as in our lives. The virtues and qualities that are the central themes of our yogic practice are expressions of who we are and of whom we more fully become the more we know and honor our own divine heart, our true Self.

This ‘Self’ is not the ego, but rather our **higher Self**, the quiet voice and presence within the heart that speaks to and guides us when we look beyond our own narrow interests. In yoga, the Self is not revealed or illumined by the mind or any intellectual process; nor is it enough simply to believe in it. The Self is known by its own shining-forth, Self-revealed in all that we do and are. This Self-revelation of the Divine comes in a moment of recognition that is a gift freely given. The moment when the scales fall from our eyes and we recognize inwardly the presence of the God within our hearts is **the** moment of Grace in its purest sense.

The mystic schools of each religious tradition in the world agree that this quest to know God through knowing our innermost self is the essence and key to the spiritual path. As St. Francis is said to have put it, “The One you are looking for is the one who is looking.” If you would know God as He is in Himself (or Herself) you must first know yourself as you most truly are, as revealed in the silence of your own heart. The Christian mystic Meister Eckhart described this as a ‘breakthrough’ in which we pierce the hard outer shell of the ego to find the presence of God within: he said, “God is nowhere as much as He is in the soul...where the soul is, there God is, for the soul is in God. Where my soul is, there is God, and where God is, there my soul is also. And this is as true as God is God.”<sup>29</sup>

In yoga our highest intention is to that Self and to become fully anchored in that experience, always aware in every thought and action of the presence of God within. We taste the essential nature of the Self when our mind falls silent and we feel fully at peace, at ease, content yet brimming with quiet joy in the state of just *being*. In knowing the Self, we *are* that Self, in a pure state of Self-awareness.

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<sup>28</sup> The Yoga Tradition, Georg Feuerstein p. 127

<sup>29</sup> Breakthrough: Meister Eckhart’s Creation Spirituality in New Translation, Matthew Fox p. 388

The literature of yoga concerning the Self is vast and spans millennia of written and oral tradition. For an overview of yogic thought concerning the quest to know the Self in the various schools of philosophy culminating in Tantra and its practices relevant to hatha yoga, as well as an historical perspective on the development of hatha yoga as a spiritual discipline seeking the Self, please see my book, The Heart of the Yogi.

In this book I'd like to touch on the relevance of the vast science of the *prana* and its all-important practical role in this quest in hatha yoga. In this discussion we're inevitably led into a treatment of the *chakras*, a further science that is unique to the medieval schools of hatha yoga and remains current today. The yogic science of the *chakras* will be set in philosophical, historical and practical context in The Heart of the Yogi; at present here it is enough to put the inner work with the *chakras* in asana practice in the context of the Anusara principles. This will help establish an understanding of the deeper work that takes place through work with the asanas, and how the heart qualities embodied in the *chakras* are unfolded and expressed through asana.

# CHAKRAS AND THE PRANA VAYUS

## THE PRANA VAYUS

### THE MEANING OF PRANA AND PRANA VAYU

**Prana** is the Sanskrit word for the life force. The root *pra* means “first” and *na* means the “smallest (or most basic) unit of energy” – so *Prana* is the first or fundamental unit of energy. Everything living functions by virtue of Prana<sup>30</sup>; all activity and change – mental and emotional as well as physical – is a manifestation of the workings of Prana. Prana is the radiance of life itself. Within us, prana is the moving force behind sensation and activity, the fire of the metabolism, the carrier of thought, and the force of will. Prana dispels impurities from the body, maintains the health of the body, and its essential nature is lightness and joy.

A smooth and unobstructed flow of prana is needed if we are to concentrate; moreover, a healthy and natural flow of prana restrains the mind from taking interest in undesirable objects or unhealthy pursuits. If one’s prana is obstructed from flowing to any part of the body – whether physically (e.g. from an injury), or because of mental blocks, impressions or emotions – the health of that area of the body deteriorates, and can even lose its power of action. We often have an intuitive sense of where the prana is ‘stuck’ or diminished when looking at the appearance of someone with a particular health problem, even though the *cause* of the diminishment is not always as obvious.

Prana is lost to a certain extent with each exhalation; just as we take Prana in through the breath, we also breathe out what we are not able to assimilate or retain. The yogic practice of pranayama is designed to minimize the loss of prana through exhalation, so that prana can be increased in the body. Prana is also depleted in other ways through our activities and emotions; by excessive exercise, in times of strong emotion, and through excessive speech, the emission of semen, the process of childbirth, and the elimination of waste from the body.

Notice that the experience of spending our prana can in some cases be exhilarating. Yet after it is spent we feel exhausted and depleted, and take some time to recover. Yogic disciplines of moderation and self-control are meant to minimize the depletion of prana as well as to assimilate and store prana. A yogi’s experiences are heightened and enjoyable because he does not allow the experience to rob him of his prana; instead he spends his prana wisely, remaining alert and joyful.

As the Prana operates within the body to maintain life, it performs distinct functions and receives specific names according to the form and specific function that it performs. In each case this particular form of prana is called a ‘**vayu**,’ which is sometimes translated as ‘wind.’ The root ‘*va*’ means “that which flows” – and so a *vayu* is a vehicle for activities and experiences within the body, or a ‘force’ that moves in a specific way and in a specific area of the body that it governs. The practices of yoga – both asana and pranayama – are meant to optimize the functioning of these vayus as well as bring them under our control, so that their energies can be used to uplift oneself.

There are 49 prana vayus or types of vayu in the body; ten of these are directly responsible for mental and physical activities. Of these ten, **five** are of interest to the yogi for progressing in his practice; the others govern involuntary physiological functions (for example, belching and blinking, which are of lesser interest in yogic discipline, though they certainly have their role in the mundane affairs of the body).

Each of these five principle vayus govern specific areas of the body, and can be thought of as elemental forces in the body that are not just physical, but govern emotional qualities and mental powers that are fundamental to a healthy personality and sense of self. As we will see, an understanding of the *chakras* is incomplete without an understanding of the nature of the *prana vayus*, since the *chakras* are manifestations of the energy of the *prana vayus*.

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<sup>30</sup> Prana has two manifestations: it is both the universal life force, and when used in this sense is capitalized; it also functions on the level of the individual, and when used in this sense appears with a small ‘p.’



The **practice of yoga**, by working with the body and breath as well as the mind, empowers us on every level by **increasing the Prana in the form of these vayus**. Each *vayu* has a ‘**seat**,’ which means that there is a location or area in the body where its functioning is felt most strongly and clearly, and the *vayu* most strongly ‘**governs**’ the functioning of that area of the body, though the *vayu* is not necessarily limited to that location or to any specific organ. Each *vayu* is also related to a specific **element** and its qualities (physical as well as subtle), and it is for this reason that in the hatha yoga tradition, mastery of a particular *vayu* and the piercing or ‘opening’ of its corresponding *chakra* led to mastery or supernatural control over the corresponding element.

**1. Prana Vayu** – while ‘Prana’ is the general name of the life force, the ‘prana vayu’ is one of its specific functions. The prana vayu governs the region from the throat to the bottom of the heart, corresponding to the region of the **Shoulder Loop**. The ‘**seat**’ of the prana vayu is the heart, and the prana vayu ensures that the heart goes on beating. It is associated with the element of **air**, and has an upward motion associated with the **inhalation**. When you breathe in, you feel the ‘lift’ of the breath, which is the energy of the prana vayu in the upper body. Its movement is upward in the way the glass is filled with liquid – from the bottom to the top. The experience of the *prana vayu* is of being filled with energy (which is distinct from the mundane experience of the physical breath as a flow of air coming in through the nose or mouth and down to the lungs).

The prana vayu governs **assimilation** or taking into oneself – as in the process of inhalation, of swallowing, assimilation through digestion, as well as the processes of taking in sensory impressions and mentally assimilating information and experience. It works to maintain the proper temperature of the body relative to one’s environment, and sustains one’s vital organs, particularly the heart.

Though its seat is in the heart, the functioning of the prana vayu can be experienced in different parts of the body. It gathers at the navel and from there is distributed throughout the body; yet it can also be experienced strongly as it moves within the head in practices of pranayama and meditation. An effective way to focus on the prana vayu is to focus on the sensation of the breath at the tip of the nose during breathing practices. Another focus is at the navel. By the same token, the strength of the prana vayu can be experienced throughout the body, right down to the toes.

The prana vayu is the energy of the **Anahata** chakra, the ‘heart’ chakra, which expresses that energy, summarized in the familiar phrase, ‘open-hearted.’

**2. Apana Vayu** – while the prana vayu is the moving force behind the inhalation, the apana vayu is the moving force behind the **exhalation**. The apana vayu is the aspect of the prana that governs the ability to eject or eliminate what is not needed to the system. Just as with the breath we exhale what is not needed after assimilating the inbreath, the apana vayu is the force behind the elimination of waste in general, working in the kidneys, colon, rectum, bladder and genitals. It is also the moving force in the process of reproduction – which essentially moves new life ‘out’ into the world – from insemination to childbirth.

The healthy functioning of the apana vayu is as vital as that of the prana vayu. If waste is not eliminated from the body, there is no room for assimilation of fresh energy, and toxins build up. This slows the body down – and slows us down on the mental level as well. Without the healthy functioning of apana vayu, one lacks motivation and determination; one feels lazy, dull and even confused, indecisive and befuddled.

In a subtle but vital sense, the apana vayu has much to do with our power of decisiveness and self-determination, both of which turn upon our power of choice. Choice demands not only the affirmation of one possible good, but also the elimination or exclusion of other competing goods – choosing one good over another. Clarity in defining oneself demands decisiveness in eliminating what doesn’t work for us, what is not needed, or what conflicts with our highest goals. It’s not surprising that the apana vayu is associated with the element of **earth**, and is the energy of the **Muladhara** Chakra, which is concerned with having a strong, sure and reliable foundation, especially in fundamental matters of survival.

The seat of the apana vayu is in the core of the pelvis, and it governs the lower body, from the navel down through the legs, corresponding to the **Pelvic Loop** as well as the **grounding action** of the **Outer Spiral**. It's worth noting how our language reflects this awareness; a person whose decisiveness is rooted in real possibilities and clear intentions is said to be very 'grounded', or to have his 'feet on the ground.' The clearest expression of decisiveness and self-assertion, in fact, is to 'put your foot down.' This kind of language expresses the power of the apana vayu

The functioning of the apana vayu is enhanced by the rooting or grounding action of the legs and pelvis in hatha yoga asanas. Emphasis on the exhalation – expression of the apana vayu – works to enhance grounding, extension and clarity or strength of purpose in one's asana practice. In pranayama and meditation, clarity begins with a good exhalation, making room for fresh energy and focus.

3. **Samana Vayu** – this is the power of the metabolism or 'digestive fire,' which controls the functioning of the abdominal organs and glands. It governs the area between the bottom of the heart and the navel – centralized in the area of the solar plexus – and its seat is said to be in the navel. It corresponds to the area of the **Kidney Loop**, which works in close association with the Pelvic Loop. While the prana and apana vayus have to do with assimilation – or taking-in – and self-determination – or grounding – through choice, the Samana Vayu is concerned specifically with the **power of discrimination**.

In its work with food and digestion, this is the force that separates nutrients from toxins: when it is not functioning well, one may retain toxins, leading to shortness of breath and gastric disorders. In the case of the mind, the Apana Vayu is the power by which to separate out or discern good from bad, which allows us to assimilate information for the sake of making choices. When there is a disorder, one can be delusional or of unsound mind. For this reason, in the yoga tradition the power of digestion is very closely linked to the power of the mind – particularly regarding discrimination and judgment.

Samana vayu is associated with the element of **fire**. It is associated with the **Manipura** chakra, and when *imbalanced*, its fiery energy can be used to assert one's will or to dominate, especially through anger. In the yoga tradition, anger is the direct result of a combination of desire, delusion and lack of discrimination. When the energies and functioning of the vayus are brought into balance to support clarity of mind, the qualities of Samana Vayu take on the humble yet expansive self-awareness expressed by the Kidney Loop. The Kidney Loop supports in particular both efficient diaphragmatic breath and the healthy functioning of the organs of digestion.

4. **Udana Vayu** – while apana vayu is concerned with elimination or outward-moving Organic Energy in general, udana vayu is the specific force that expels air with the exhalation in a way that is particularly concerned with **speech and the production of sound**.

'Udana' is 'that which carries upward.'<sup>31</sup> It rules the region of the throat and head, and is seated specifically in the throat. Its function is expressive; it is the energetic flow that moves upward and out. When udana is imbalanced, speech is disjointed and one cannot speak or articulate ideas properly. Imbalances can also cause shortness of breath and other respiratory problems particularly associated with the throat, which can have their root in obstacles to self-expression, or emotional repression. Breaking or cracking in the voice, as well as inability to express musical pitch with the voice result from irregularities in the udana vayu.

The area ruled by udana vayu corresponds to the area of the **Head Loop** in conjunction with the action of the **Shoulder Loop**, so far as the Shoulder Loop creates an opening, lift and expansion at the back of the palate for the upward movement of udana vayu. This energy is particularly stimulated by **Jalandhara Bandha**, which creates this opening through the actions of the Head and Shoulder Loops – whether in asanas such as the Shoulder Stand, or in pranayama.

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<sup>31</sup> Udana vayu also governs vomiting, and imbalances in udana can produce nausea or the desire to vomit. Perhaps this association with udana explains the association in the mythology by which the deities produce their creation by a process that is both a speaking-forth and a vomiting – in words that share the root 'va'.

Udana vayu is related to the element of **ether** or space, and is activated during creative vocalization. Udana is focused at the fifth or throat chakra – the **Vishuddha** chakra, and this upward moving energy continues through the upper chakra, the Ajna chakra, to the Sahasrara, and is purified during this upward journey. The feeling of movements of energy in the head during pranayama and meditation are manifestations of the rarified movements of udana vayu. It is this udana which, when purified through yogic practice, brings the blissful experience of samadhi.

5. **Vyana Vayu** – this vayu pervades the *whole* body, and is a coordinating, connecting force. It has no specific seat, but rather coordinates all the powers such as sensory awareness, and runs through the whole network of the 72,000 nadis or passageways of prana in the body, connecting the functions of the nerves, veins, muscles and joints. Its function is cohesive and is associated with the element of **water**.

Vyana vayu is fundamental to making one feel and function as an integrated whole. Though it governs and coordinates all of the senses as well as the functioning of all muscles, both voluntary and involuntary, it is felt especially in the skin. Goosebumps and perspiration, and all of the various actions and reactions of the skin to the environment are manifestations of Vyana vayu. It functions at the “surface” or outer boundary of your energy body, much like surface tension on a drop of water, and is associated with a sense of boundaries through which we define ourselves and interact with our world.

Within oneself, Vyana vayu governs our internal sense of coordination and balance. When imbalanced, one feels uncoordinated and clumsy; coordination between mind and body suffers, and one’s own thoughts can be disjointed, fluctuating and rambling. Dysfunctions in Vyana vayu can also lessen our power of sensation.

Though Vyana vayu itself has no particular locus or seat, it is associated with the energy of the **Svadisthana** Chakra, located at the root of the genitals. In general, Vyana vayu is strengthened by the interplay of **Muscular and Organic Energy**, which coordinate and integrate mind and body through the actions of the asanas. More specifically, because of its association with the energy and concerns of the Svadisthana Chakra, the subtler energies involved are enhanced through **Mulabandha**, created in conjunction with the interaction of the **Inner and Outer Spirals** in the lower body.

The energy of the **Svadisthana Chakra** concerns your sense of self, and sense of boundaries between yourself and others as you express yourself creatively in relationships. A healthy sense of boundaries is fundamental to forming relationships, and work with this chakra concerns the formation of boundaries and sense of self, just as the surface tension on a drop of water – the ruling element of this chakra and of Vyana vayu – defines its shape.

Water is the basis of cellular life, but can only function to support life by the mechanism of cellular walls; the basis of interaction, even on a cellular level, is strong but permeable boundaries, which define individual cells. The same is true at other, subtler levels. Water is the element or medium of the emotions, which pass between and suffuse individuals like a subtle liquid permeating the walls of self. Emotionally as well as physically, one can be too open or too closed. Any organic system of relationships is healthy only when the walls are strong enough to allow discernment and choice, where choice and discrimination is a process of positive affirmation.

Weakness in the energy of this chakra – which can be due to disorders in Vyana vayu – leads to a weak sense of self, low self-esteem, problems in forming relationships, and even problems with the immune system, all of which concern interaction and exchange with our world through the medium of a strong and healthy set of boundaries – both physical and emotional. A lack of boundaries – as well as overly rigid boundaries – depletes and diminishes life. Thus these are the concerns of how we express ourselves and relate to others at the level of the Svadisthana Chakra, which is strongly influenced by the flow of Vyana Vayu.

## ASANA PRINCIPLES AND THE PRANA VAYUS

From this discussion of the vayus, we can begin to build a picture of how the principles and actions of the asanas can influence and enhance the energies of the vayus, bringing about greater health and integration on every level. Coordination of the breath with the principles, particularly focusing on the feeling and movement of the breath or prana in the area of the body concerned with the principle, enhances the prana vayu in that area and the qualities associated with that prana. The goal is the fully balanced, integrated and healthy functioning of the prana in the body as a whole, in all its aspects.

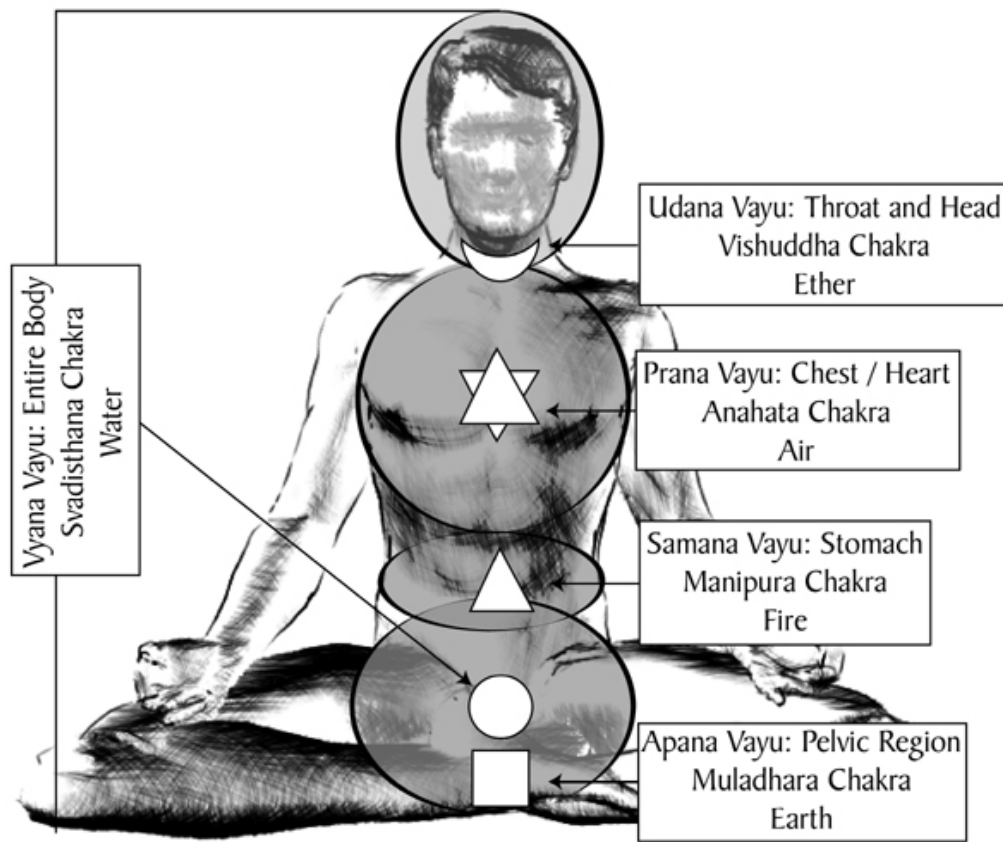
1. Prana Vayu: Shoulder Loop and Focal Point in the Heart
2. Apana Vayu: Pelvic Loop/Outer Spiral and Focal Point in the Pelvis
3. Samana Vayu: Kidney Loop – in conjunction with the Pelvic Loop
4. Udana Vayu: Head Loop – in conjunction with the Shoulder Loop
5. Vyana Vayu: Muscular and Organic Energy in general: Inner and Outer Spiral to create Mulabandha in particular

# THE CHAKRAS

As the discussion of the vayus suggests, the elemental energies of the prana vayus of the body express themselves in and through the energy of the chakras. A chakra is a plexus of pranic energy in the body that expresses our individual consciousness and energy in particular ways distinctive of our individuality. The emotional qualities associated with the chakras are really manifestations of the energetic qualities of the *prana vayus* as they function in the physical and subtle body; the ‘work’ with the *chakras* that is so current in popular literature is really an affair of working with the *prana* in its various forms, using forms and practices of pranayama in particular to unfold potentialities for spiritual evolution in the subtle body as well as clearing out impressions or *samskaras* impacted upon the subtle body by past experiences.

We are familiar with expressions such as a ‘gut feeling,’ an ‘open heart,’ ‘fire in the belly’ and so on, all of which are colloquial expressions of the energy of the chakras. Our expressions also reflect our recognition that these energies can be ‘open’ – expansive, expressive, inclusive – or ‘closed’ – tight, narrow, self-absorbed. Our maturity and evolution as individuals and as spiritual beings depends upon how much these energies are ‘opened’ as we progress through life, bringing us into higher levels of harmony with the generous, inclusive and expansive energy of the universe, the creative Shakti.

Each chakra has its own symbol, representative of its energy; it is also directly related to the energy of a specific element and prana of the body. Moreover, through practice we can see how the principles of Anusara Yoga applied in hatha yoga poses relate directly to working with the energy and ‘issues’ of each chakra, bringing us into emotional as well as physical harmony with the universe.



## MULADHARA CHAKRA

**Element: Earth**

**VAYU:** APANA VAYU

- These principles provide a sense of grounding and foundation, providing the sense of security that allows the Muladhara Chakra to open and blossom

**Hatha Yoga Poses:** Standing Poses

## SVADISTHANA CHAKRA

**Element: Water**

**VAYU:** VYANA VAYU

- These principles create **Mulabandha**, which directs the creative energy of the second chakra upward, away from mere self-centered sensuality or desire for sense pleasures and toward positive relationships with others.

**Hatha Yoga Poses:** Hip Opening and 'Bound' Poses (e.g. Lotus)

## MANIPURA CHAKRA

**Element: Fire**

**VAYU:** SAMANA VAYU

- This principle brings together the principles of the lower body, unifying the energies of the first three chakras and directing them upward through **Uddiyana Bandha**. Through the poses, it purifies the fiery energy that is concerned with ego, prestige and control of others through anger, and directs that energy upward as a positive energy of will directed toward selfless service.

**Hatha Yoga Poses:** Leg Principles in Standing Poses – especially Warrior Poses – and Backbending

- These postures can be very fiery and demand strength of will. (They also work on the ego a great deal.)



## ANAHATA CHAKRA

**Element: Air**

**VAYU:** PRANA VAYU

- These principles bring balance between the lower and upper chakras. The heart is the midpoint, the meeting place between the physical energies of the lower chakras and the spiritual energies of the upper chakras. Through the Shoulder Loop the heart is ‘opened’ and the upward rising Prana is transformed into distinctly spiritual energy.

**Hatha Yoga Poses:** All poses maintain an ‘open heart’ through the Shoulder Loop; Backbending is particularly powerful

- In backbending, the humble quality of the Kidney Loop is balanced with the strength and openness of the Shoulder Loop.

## VISHUDDHA CHAKRA

**Element: Ether**

**VAYU:** UDANA VAYU

- These principles purify and direct the upward rising energy by creating **Jalandhara Bandha**. The head bows to the heart, so that the heart energy of the Kundalini prevails over the mental energy of the ego. In this way, the individual’s Kundalini can proceed through the upper chakras and is given ‘permission’ to rise higher through the Ajna chakra.

**Hatha Yoga Poses:** Forward Bending and Pranayama

- The Ujjayi breath becomes particularly powerful when joined with these principles and practices.

## AJNA CHAKRA AND SAHASRARA

**Element: These are beyond the five elements as well as the Vayus**

**PRACTICE:** PRANAYAMA AND MEDITATION, DIRECTED BY KNOWLEDGE AND DEVOTION

# BIBLIOGRAPHY

*Anusara Yoga Teacher Training Manual* by John Friend. Anusara Press; to order call 1-888-398-9642

*Anatomy of Movement* by Blandine Calais-Germain; Eastland Press, Seattle 1993

*Anatomy of Movement: Exercises* by Blandine Calais-Germain and Andree Lamotte; Eastland Press, Seattle 1996

*The Yoga Tradition* by Georg Feuerstein; Hohm Press, Prescott Arizona 2001

*The Alchemical Body* by David Gordon White; University of Chicago Press 1996

*Hatha Yoga: Breath by Breath* by Godfrey Devereux; Harper Collins Publishers 2001

*The Mystic Spiral: Journey of the Soul* by Jill Purce; Thames and Hudson 1974

*Path of Fire and Light* by Swami Rama, The Himalayan Institute Press 1996

*Breath, Mind and Consciousness* by Harish Johari, Destiny Books 1989

*Taking Root to Fly* by Irene Dowd; Cummings Printing Company, 1990

*Esoteric Anatomy: The Body as Consciousness* by Bruce Berger; North Atlantic Books 1998

*The Hatha Yoga Pradipika* translated by Pancham Sinh, Munshiram Manoharlal Publishers, New Delhi 1992

*Breakthrough: Meister Eckhart's Creation Spirituality in New Translation* introduction and commentaries by Matthew Fox; Image Books, Doubleday 1980

*Refining the Breath; Pranayama in the Anusara Tradition* by Doug Keller; see [www.DoYoga.com](http://www.DoYoga.com)

*The Heart of the Yogi* by Doug Keller; see [www.DoYoga.com](http://www.DoYoga.com)

## About Doug Keller

Doug Keller is one of the senior teachers in this school of yoga founded by John Friend. Doug's workshops are well known as fun learning experiences distinguished by his clarity, wit, and wise and insightful style.

After completing his Master's Degree in Philosophy at Fordham University in 1984, Doug began studying and teaching yoga upon meeting the renowned meditation master, Swami Muktananda. During his stay of seven years in Muktananda's ashram in India, he met and began his studies in hatha yoga with John Friend, who was soon to become one of the most widely sought-after hatha yoga teachers in the United States. Upon his return from India, Doug trained intensively with John and worked with him in his classes and teacher trainings as John developed the Anusara style of yoga.

Upon certification in the Anusara style, Doug began traveling extensively, both nationally and internationally, offering workshops and teacher trainings. His international teaching travels include Switzerland, Italy and England. In Switzerland he is the director of the hatha yoga program of the Star Fire Mountain College.

Doug is author of the books Anusara Yoga and Refining the Breath: Pranayama in the Anusara Style of Yoga, both of which have become standard texts in Anusara trainings. His home base is in Herndon, Virginia, where he teaches upper level yoga classes as well as workshops on meditation, pranayama and yoga philosophy. There he co-teaches in a yearlong Anusara Teacher Training program, as well as in the teacher training at Willow Street Yoga Center in Takoma Park, Maryland.