

The Feet

The foot is the foundation to the temple of the body. Our feet are our supports, providing lift, extension and balance for the entire body. Just as the foundation to the pillars of a temple site must be set level in order to support all the structures above, so the feet must be balanced and sturdy to support the legs, spine, arms and head above. If the base is tilted or collapsed, it will be reflected up in the body as distortion or misalignment. Unlike the stone foundation to a temple site, the feet that are our foundation are not static. Our bodies are mobile temples and our feet are required to be flexible and adjustable while being firm stabilizers.

In the yoga tradition the foot, paradoxically, has almost transcendent status. In the presence of a revered teacher one touches or kisses his or her feet as an act of reverence. By this act, there is also acknowledgment that the ancient teachings have been stepped down through time on the feet of the learned ones. This reverence is expressed in the first phrase of the Ashtanga vinyasa yoga invocation, "vande gurunam charanaravinde". Vande gurunam honors the lineage of teachers to come before who have continued the tradition, while the word charana means feet and aravinde means lotus flower. By invoking the lotus feet of the learned ones, the practitioner seeks to awaken (flower) within him/herself the wisdom of the ancient yoga teachings.

Feet Our First Chakras

The feet, we could say, are our first chakras in the body. Because we are bipedal (and not four-legged, although that posture may be easier!) all of our weight bearing falls into the feet. Our feet must necessarily be strong and sturdy supports. The heel bone is the hardest bone in the body (called the calcaneous) and it is meant to root downward. From the downward rooting action of the heel the weight in the foot is distributed forward to the base of the toes, particularly the resilient "ball of the foot", the base of the big toe. The first chakra is traditionally thought to be located at the pelvic floor, the perineum, called the muladhara chakra. Mula in Sanskrit means root or origin or source. In the bipedal upright position, our feet provide a stabilizing "root" support for the upward moving "trunks" of our legs. In a sense we have then two muladhara chakras, root supports, located in the center of each foot like a healthy tree whose root system bifurcates as it descends. I often teach that the soles of the feet and the pelvic floor mirror one another—they both are situated horizontal to the ground with the vertical thrust of the legs extending between them. Elasticity and postural tone in the feet help determine tone on the pelvic floor.

Pada Bandha

Strengthening the arches of the feet is to create a "pada bandha". Pada means foot and bandha means to lift or to catch or to harness. Typically, the inner arches of the foot droop, which reflects up the leg as weakened inner thigh muscles, and into the back as stiffness and compression. Ida Rolf, who developed an approach to body alignment called "Structural Integration" pointed out that "A man's track's tell quite a true story. They inform quietly about ankles and knees, but they shout the news about hips and pelvis... If one foot is consistently everted, the ankle, the knee, or, perhaps more likely, the entire

pelvic basin is rotated.” Because the entire weight of the body is dependent on the dynamic support of the feet, it is crucial to educate the feet to lift appropriately. Those who stand a considerable amount for their living (chefs, waiters, printers, service people etc.) need to build strong arches so as not to fatigue by three in the afternoon! Pada bandha supports elevation in the ankles, knees, and inner groins and further supports the lift of the pelvic floor known as mula bandha. If the arches of the feet drop, it is common that prolapse of the internal organs may show up in the pelvis and abdomen. Especially as we age, the earth bound pull of gravity tends to get the best of us and the weight of the internal organs drape down inside the abdominal compartment. One way to prevent prolapse of the abdominal and pelvic organs is to build good spatial tone and lift from the feet, in addition to toning the perineal muscles on the pelvic floor.

The lifting of the pelvic floor known as mula bandha has often been compared to the Kegel’s exercises, which are to be practiced during pregnancy to create elasticity in the pelvic floor prior to birth. This exercise is done by engaging the muscles of the pelvic floor and contracting them upward. Let us imagine that this same exercise could be used to elevate the muscles of the center foot to create strong arches. It would make the pada bandha easy! However, the design of the foot is complex and the underside of the foot does not lend itself to such voluntary control.

Activating the Arches

Because of the way our foot makes contact with the ground, the key to creating strong arches is to extend the foot and make space within the 26 bones of the feet. Stretching the sole of the foot is like pulling out taffy. To create malleability at the sole of the foot we begin by stretching the skin lengthwise and extending it out laterally. By making the skin on the foot more elastic, we build an effective trampoline for spring in the muscles and bones of the foot. Stretching the skin on sole of the foot activates the nerve endings which has a rejuvenating effect up into the body. Anyone who has received a foot massage has experienced the wave of profound relaxation that radiates up from the feet and through the entire body.

To build this trampoline like resiliency in the foot, it is necessary to press into the bones of the feet that impact the ground when walking. By plugging down the heel, the root of the little toe and the root of the big toe, we create a triangular base that serves to help vault upward the inner arch of the foot. The weight bearing falls into the anterior heel and is then distributed forward along the outer edge of the foot to the base of the toes and backward to the back edge of the heel. It is easy to understand this if we think of the design of a snowshoe. To put on a snowshoe, one steps into the middle of the shoe, in such a way that there is webbing that extends backward, forward and to each side. The webbing is a tough material with ample spring distributed around the shoe like latticework. At the edges of the snowshoe there is a more solid rim that stabilizes.

The lift of the human foot is similar in function to the snow shoe, in that the long bones of the feet (metatarsals) and to a lesser extent the dense packet of bones just in front of the heel (the tarsal bones) will have the same springiness and rebound quality as the webbing of the snow shoe. As the perimeter of the foot descends—base of the toes, outer edge of the foot and anterior heel—the center of the foot can rebound upward. Thus in all

standing postures in yoga, there are complimentary forces at play through the foot, ones that descend and anchor and ones that pry upward to lift.

Once we cultivate mobility and support in the foot, that is once the pada bandha is active, we engage the foot this way throughout most all the variations of postures. In forward bends with the feet facing outwards, or in inversions with the feet facing upwards, we sustain the same lifting action to pull life force through our feet. Without the pada bandha the knees, hip joints and low back lose the intelligence to stay active. Remember that the circuit of awareness for us bipeds begins in the feet!

Foot Wheels

If our feet are our first chakras, and the only part of the body in contact with the ground while upright, they are the wheels to the vehicle of our body, and our primary source for locomotion. When balanced and true, they provide a smooth ride or gait, one without disturbance or jarring. When a car is out of alignment, one tire wears quickly and the vehicle is pulled to the side. It is similar in the human body, that when the foot collapses or distorts, the strain will travel up into the hip joints or lower back and a strong pull, twist or torquing may develop side to side or back to front. The best way to note how you wear your tire treads is to note how the sole of your shoe wears. Does the inside or the outside of your heel wear down? Which heel wears faster right or left? If there is excessive wear on one side, it will indicate that the foot is shifted off its central axis, putting likely strain up into the knee or hip joint. When students consult with me about knee or sacro-iliac pain, I will often look to their feet for the beginning signs of distortion.

Many people end up standing and walking for a lifetime on feet that have fallen or weakened arches. This is akin to driving on semi-flat tires. Walking on flat tire feet leads to compression in the axle joints (ankles), strain on the drive shaft (the spine), a collapsed and painful posture and low gas mileage! In hatha yoga when the body is light and spacious there is sukha literally "good space" and when the body is distorted and hurting there is dukha or "bad space". Sukha, in ancient times referred to the space inside the hub of a chariot wheel that was perfectly tuned and rolled smoothly. Dukha is when the space of the wheel hub is lopsided and the wheel has a hitch each time it turns. I often encourage students to "pump up the arches" of their feet, thereby creating inner arches that have "good space" between the bones of their feet (metatarsals) and the floor. This helps prevent flat footedness that so often places a downward drag on the body above.

The First Pose

The starting place for the asana practice in both Iyengar and Ashtanga Vinyasa yoga systems is standing poses. The standing poses rebuild stability and good spatial tone in the foot thereby energizing the legs to support good upright posture. Strength and lift in

the feet lead to greater sense of balance, confidence (sure-footedness!) and grounding (so important living at 7000ft as I do in Santa Fe!) Patterns of distortion leading to instability start in the feet when we are very young. Emotional pain and psychological tension become embedded in our feet. Rolf observed the impact that distorted feet could have on the emotional body. "The psychological effect of foot problems of all kinds is remarkably consistent; a deep, unconscious feeling of insecurity". If for instance, we feel early on that our environment does not fully support us or we resign from situations that feel burdensome or not to our liking, our feet beneath us may literally give in and collapse. Or if we resist the environment we are in and are driven to run, our feet (and leg muscles) can become hypertonic-- full of tension. Standing evenly on our feet is an art that requires much training, a training that would best begin in the third grade.

Standing with equilibrium is the first posture in the Iyengar and Ashtanga training. Referred to as either *tadasana* (the mountain pose) or *samastithi* (equal standing) this upright standing pose is the blueprint for all the variations of postures that follow. It is the blueprint, for it is the neutral standing position, that teaches us to be fully upright, connected to the ground and reaching out and up toward sky. The ease of the upright posture is determined mainly by alignment of the feet, and specifically *samastithi* (even standing) through the two ankle bones. (See photo) Typically, the inner ankle bone (the base of the tibia bone) collapses due to fallen arches. It is through the tibia, which is the inner bone of the shin, that the weight of the leg is directed into the foot. If the inner ankle drops at the base of the inner leg, it is all too common that the inner groins at the top of the inner leg will collapse from the lack of support below. The weakness in the inner thighs leaves the lower back vulnerable to compression. Many people fail to realize that their lower back may give out because the arches of their feet are unstable.

A good way to bring tone back to the sole of the foot is to step onto a tennis ball or dowel. All the points of the feet are stimulated and congestion in the connective tissue, muscles and ligaments is released allowing the foot to regain its spring. In the system of foot reflexology, all the body regions, organs and glands are mapped out across the sole of the foot. By way of stepping onto the tennis ball the sensitive and often painful trigger points on the sole of the foot are stimulated and the entire body can be rejuvenated. A simple way to stretch the underside of the foot is to kneel with the toes turned under. For some with hypertonic feet, this position can be torturous, in which case it is best to hold onto a wall or counter for support. (See photo)

Foot Wear

Years of wearing confining footwear can lead to tense and foreshortened feet. Cowboy boots and high heels are foot culprits (some I know do cowboy boots during the day and high heels at night!) as are ski boots, cleats, ballet point shoes and rock climbing shoes. Constrictive footwear places limits on the blood flowing in and out of the foot and cramps the bones of the feet together, resulting in compacted and clenched musculature around the foot. Standing postures are rehabilitative for compromised feet, as they reinforce good spatial tone (length and width and lift) along the sole of the foot. In earlier times people walked on the ground in footwear (or barefoot) that was less reinforcing to the foot. This demanded that the foot be more responsive—more agile, adjustable and articulate on varying terrain. Today, as people spend much more time

sitting than walking, and urban walking subjects us to unvaried, hard paved surfaces below our feet, the small bones and ligaments in the foot are limited in their range of motion. The micro-adjustments required of the foot when walking on uneven terrain promote small movements up inside the pelvis and spine that lead to an overall sense of pliability. Walking on predictable (and hard!) surfaces typically result in a clumping effect, wherein the feet, ankles and lower back move as set fixtures. This can lead to rigidity and painful foreshortening, especially in the back of our bodies. Walking on concrete limits the subtle and fine adjustments that occur when walking on the ground, leaving the feet pelvis and low back immobile and vulnerable to displacement.

The Sole of the Foot and Back of the Body

The feet, oddly enough, are the beginning of the back of our body. In the case of the four-legged animals, take for instance a dog, the heel is set up the hind portion of the leg. With the “sole” of the dog’s foot facing backward, the weight bearing of its body is pitched up onto its paws, thereby allowing tremendous spring out of its limbs. If we were to imitate the way a dog walks we would have to lurch up onto the base of our toes and elevate our heels. Other four-legged beings such as the horse or the deer are similarly pitched up onto their toe hooves with their “heels” elevated off the ground. Through the years of evolutionary change leading up to bipedalism, the heel lowers, and the rear lower limb—the foot— becomes planted. With heels on the ground, the foot begins to spread open along the ground and provide a stable base for uprightness and locomotion.

In yoga practice much time is devoted to releasing the back of our bodies, from the feet up through the calves, hamstrings, buttocks, along the spine to the base of the skull. In the first years of practice, the focus is primarily on forward bends, both standing and seated that free up the muscular, emotional and psychological blocks that become embedded in the back body. (In Ashtanga vinyasa yoga for example, the primary series is called “yoga chikitsa” or yoga therapy and is primarily forward bends to release the back body.) It is common that the back body holds the charge of our personal history—our past— that is we store stress and anxiety “behind” us. We falsely assume that what is out of sight is out of mind, so we hold a closet full of tension in the back body. In so doing, the repositories of the lower calf, the hamstrings, the low back, mid shoulder blade area and neck become tight and unresponsive. A forward bend like *uttanasana* elongates and (slowly!) breaks apart the accumulated tension in the back body, making available an abundance of previously “shorted-out” energy. If the sole of the foot is elastic and open in *uttanasana*, it may initiate a free flow of energy up the back of the legs, down the spine and out the back of the head. This continuity of extension feels wonderfully pleasant, and the current moving through the back body begins below in the feet.

At Home in Barefeet

It is surprisingly common how people lose connection with their own feet. At times when I teach mechanics of the foot in class and I have students stand so that we may observe the feet together, people become skittish and may feel embarrassed. I have often

heard people say "I hate the way my feet look." For some people, their feet are at the opposite ends of their universe and there is a feeling of being disconnected from their feet. This is why the practice of yoga postures can be so valuable. Practiced in barefeet, students of yoga become more intimate with their own feet, developing greater "feel" for the ground below. Enhanced poise through our feet leads to a sense of stability and rootedness, so important amidst the unforgiving pace of today's culture.

Inside our homes it is important to walk barefoot whenever possible. The Indian custom to leave shoes at the door when entering a home draws an important boundary between the impersonal traffic of the street, and the intimacy of being at home. Both for the sake of cleanliness and to develop a greater feel for the surfaces under our feet at home, it is a good practice to leave shoes at the door. When barefoot at home, I often encourage students to practice lifting their arches and spreading their toes in the kitchen while waiting in the morning for the toast to come up.

Samastithi (Even Standing)

Standing in samasthiti, balancing the weight bearing evenly through the feet demands the subtlety of a watchmaker and the rootedness of a redwood tree. Stand with your feet parallel to one another and hip width apart. Be sure that you are on the center of your heel bones and not riding your inner or outer heels. To find this, lift one heel at a time and reset it so that you are on the center of the heel. Align the center of your cranium over the center of your pelvis over the heel bones. Try not to sit back on your heels but pitch slightly forward to the anterior heel. Feel the line of your inner leg above your inner heel, aligning the tibia bone as it channels weight bearing down into the foot. Conduct gravity down through your head through your spine and sacrum, through your legs and into your feet. Then practice rebounding from your heels back up against gravity.

Elongate your toes forward stretching the fabric of your skin on the sole of your foot. This is akin to creating the head of a drum. To be able to create good resonance on the drumhead, the skin must be stretched out equally and with full extension in all directions. Press down into the anterior heel projecting forward to the ballpoints at the base of your big toe and over to the base of the little toe. This forms a triangle shape at the base of the foot. Then "pump up" the arches of your feet, creating good space between the belly of your foot and the floor. Hydraulically lift the inner arches without pulling the front two corners of the triangle off the floor or clenching your toes. In this stance feel the skin of your legs drawn upward like you are pulling on a pair of stockings. Feel corresponding lifts from your feet up to the knees and pelvic floor. Remember mula bandha, the lift of the first chakra begins in the feet!

Virasana

To gain elasticity in the foot, virasana, is invaluable. Sit with your feet drawn back and the top of the foot extended. It is difficult to sit in this position onto the floor, because it

demands considerable flexibility in the knee and ankle joints. In order to make the pose tolerable and be able to keep the feet parallel to one another with the top of the feet on the floor, sit onto a book or yoga block. Virasana is important, for it shortens the Achilles tendon and contracts the muscles on the plantar surface (sole) of the foot, while lengthening the extensor muscles on the top of the foot. The ultimate health or tone of any muscle group in the body is determined by its ability to both extend and contract. Gently press the top of your foot into the floor. Some times the muscles at the sole of the foot spasm for they are not used to being shortened. If this occurs then come out of the pose, stretch you foot and try again. I encourage students to sit in this posture for meditation.

Downward Dog Pose

After a span of time that feels appropriate for you, release the pose and move back into downward dog as a counter pose for your feet. The downward dog extends the Achilles tendon (which begins half up the back of the calf muscle!) and stretches the plantar surface of the foot. It is important to note that the Achilles tendon is connected through fibrous bands of connective tissue over the heel to the plantar fascia on the sole of the foot. Students frequently bemoan that their heels never lower in downward dog and think that it is only a matter of the calf and Achilles lengthening. Crucial to the downward extension of the heels is the lengthening of the muscles and fascia on the soles of the feet. In the downward dog extend your toes forward so as to lengthen the long bones inside your feet. Imagine that you are pulling out the taffy of the skin on the belly of your foot. At the same time reach your heel back and down, so to create more longitudinal extension along the length of your foot. Then create a lateral spreading as we did in samastithi. Visualize the length and breadth of the foot like a big banana leaf! The movement of the skin on the sole of your foot in down dog translates up the back leg and down the back of the spine to the nape of your neck. Visualize that you have stepped into an elastic body suit (your skin) and extend the fabric of the suit along the length of your back body.

Triangle Pose

Establishing length in the foot in virasana facilitates a similar extension of the foot in triangle pose. To do the triangle pose step the feet three and a half to four feet apart. Turn the right foot out so that the inner edge of the foot is parallel to the side of your mat. Then pivot the left foot toward the right foot. Observe that the heel of the right foot bisects the arch of the back foot. Extending your arms out take a breath and side bend to the right. Bring focus to your right foot and be sure to press into the ball of the foot at the base of your big toe. It is common for people to have most all their weight plummeting into the heel, and little weight distributed forward toward the roots of the toes. I often refer to people who sink most all their weight into their heels while standing as "heel sitters". Aim to press you weight onto the anterior heel, so as to avoid hanging on the back heel. From the anterior heel launch your weight forward to the base of the toes, carefully pinning down the ballpoints at the base of the big toe and the root at the base of the little toe. This extension of the foot demands considerable length in the extensors at

the top of the foot. Practicing virasana initiates this extension along the top of the foot, while shortening the Achilles tendon, thus providing length for the front foot in triangle pose.

Viparita Karani

This posture is essential to relieve compression in the knees, ankles and feet. Practice at the end of the day to recharge the batteries of your kidneys and rest the heart. This pose is particularly effective for varicose veins, inflammation or swelling of the feet and high blood pressure. Lie with your legs up a wall and your pelvis propped six inches off the floor. Use a bolster or other firm but not hard surface to support your low back and top of the sacrum. Keep your legs extended and together. Create the pada bandha, simultaneously extending through your heels and the base of your toes.

It is remarkable how often yoga students testify that their feet grow in length over the course of a sustained yoga practice. At the outset of our yoga practice we have little idea how confined and restrained our feet have been over the years. As we free up our feet, we tap into a reservoir of potential energy. It is as if we are standing on potential well springs of life force in our feet, springs that have been covered from years of constrained footwear, lack of use, abuse and inhibition. We are required to do a fair amount of mining, that is breaking through the impacted connective tissue and calcified "crystals" that form as painful deposits inside the shaft of the undeveloped foot. By mining our feet, however, we may tap into a ground spring of life force, one that may keep us vital and fluid for years to come.

Tias Little lives and teaches in Santa Fe New Mexico. He directs the Yogasource studio there and travels throughout the U.S leading workshops on Anatomy for Yoga. He may be reached through yogasource-santafe.com.