



Yoga for the Feet

by Pam Werner

The foot is an amazing, yet complicated part of the body. Our feet are our body's foundation as well as the tools of our mobility. The importance of the feet is commonly forgotten or unknown. The purpose of this paper is to explain the importance of feet, common foot problems in our culture, basic anatomy of the foot and yoga poses that benefit the feet.

Why Feet Are So Important

Our feet are our connection to the Earth; they are our roots to the Earth. A solid connection with the earth helps to keep us grounded which helps to balance the whole body. It is important to pay close attention to our feet and care for them properly to keep our connection to the earth clear and strong.

As our feet are our connection to the Earth, they are also our body's foundation. Just as a foundation of a building must be level and stable to support the structure above, the feet must be balanced and sturdy to support the legs, spine, arms and head. If your base is tilted or collapsed, a reflection of this will appear up through the body as misalignments. It is also important to note that our feet are not static as a foundation of a building. Our feet have the added complexity of being mobile with the necessity of being flexible and strong.

The first chakra (muladhara chakra) represents our grounding and connection with the Earth. The feet and legs play a vital role in balancing the first chakra because first chakra nadis flow from the tailbone down the legs into the feet.

Not only do our feet create our foundation, our feet and toes are essential elements in body movement. They bear and propel weight of the body during walking and running. They help maintain balance during changes of body positions. The function of the toes, especially the big toe, is to help us balance and to propel us forward during movement. Feet create mobility and supply us with direction.

The body lines up over the feet, when a foot goes out of alignment the ankle, knee, pelvis and back follow. Analyzing the way we stand, walk, run and sit helps determine the cause of misalignment, which is most likely the culprit of pain. Finding and correcting the misalignment usually relieves the pain.

Our feet are often neglected and abused by wearing uncomfortable or improperly fitted shoes and rarely walking barefoot. Walking barefoot utilizes the foot muscles, which strengthens them as well as helps recreate and maintain healthy arches. It also allows the feet to be free, spread, and get fresh air.

Our body reflects everything we do with our feet. If our feet are tight and clenched, our whole body mirrors this tension. When our feet are tired, our whole body is tired. When our feet are out of alignment, our whole body is out of alignment. Our feet are also mirrors of our general health. Signs of diabetes, arthritis, circulatory, and neurological diseases often appear first in the feet.

Many foot problems are due to the fact that our society tends not to maintain muscle tone in the feet. By wearing shoes most of our lives our feet cannot move freely. By not allowing the feet to move freely or

walk barefoot, the muscles and connective tissue of the feet weaken, the feet flatten (arches fall), ankles weaken, and other foot problems occur such as bunions, hammer toes, and claw toes. Bad shoes and lack of exercise weaken our feet which not only affects our bodies health it also weakens our connection to the earth.

The alignment of our feet and the distribution of weight through them will affect the position, function and flow of energy through our knees, hips, back and shoulders.

Constrictive footwear limits the blood flowing in and out of the feet and cramps the bones of the feet together, resulting in compacted and clenched musculature not just in the foot, but also in the entire body. Confining footwear includes high heels, cowboy boots, ski boots, cleats, ballet point shoes, rock-climbing shoes and other poorly designed shoes.

Proper foot care is essential to healthy feet and overall health of the body. Integrating basic foot care into your daily routine can be very rewarding.

Some easy foot care tips for happy feet:

- Stay hydrated; drink plenty of water daily.
- Give yourself a daily foot massage working through any knots or tension held in the feet.
- Applying lotion or oil to your feet to keep the skin moist and subtle.

Foot Problems

In modern society it is customary to cover our feet by placing them in restrictive shoes. Feet are not considered an attractive part of our bodies. By covering our feet continually, we do not notice them as much as uncovered body parts. For example, our hands are not normally covered; we tend to notice immediately when we get a hangnail or our fingernails need to be cut. On the other hand, we rarely see our bare feet, and don't necessarily notice when we have an ingrown toenail or our toenails need to be cut until they become painful.

Common foot problems include flat feet, bunions, hammertoes and claw toes. Lack of muscle tone in the feet and improperly fitted shoes are the major causes of these conditions. All of these common foot problems are preventable and reversible with close attention and care for the feet.

A bunion is a bump caused by an enlarged bone at the medial base of the big toe when the joint angles inward toward the other toes. Improperly fitted shoes can cause and aggravate bunions.

Hammertoes occur when the first joint of the toe is overly bent. Claw toes occur when the second joint of the toe is overly bent. Both of these conditions are caused by improperly fitted shoes and chronic tension held in the feet.

Feet can also be the root cause of leg, pelvis and back problems. A fallen arch, or flat foot, can cause knee, hip, back and shoulder misalignment and pain. Adult bad posture and back pain can be traced back to lack of muscle tone or misalignment in the feet.

The primary purpose of shoes is to protect your feet and prevent injury, but in order to do that, shoes must fit well. Poorly fitted shoes, shoes that are too narrow, too short or too large can cause discomfort, injury and even permanent deformity. Shoes that don't fit properly are the source of many foot problems. The higher the heel, the worse the problems tend to be. If one has foot problems, it is important to look at the cause, which is most likely to be shoes.

The height of a shoe heel makes a dramatic difference in the pressure that occurs on the bottom of the foot. As heel height increases, the pressure under the ball of the foot increases, placing greater pressure on the forefoot as it is forced into the point. Elevating the heel causes the body to be more out of

alignment. With a neutral heel height, the body is properly aligned using the weight-bearing bones and muscles.

Other causes of foot problems include standing on hard surfaces or sitting for long periods restricts the supply of fresh oxygenated blood to the legs and feet. Restricting fresh blood to the feet along with lack of exercise and poor circulation to the lower extremities can cause aching, swelling and other foot problems.

- One in six people in the US have foot problems.
- Nine out of ten women are wearing shoes that are too small for their feet.
- Women are nine times more likely to develop a foot problem because of improper fitting shoes than men.
- Eighty percent of all foot problems occur in women.
- Two-thirds of foot problems can be attributed to shoes.
- At one time or another, 85% of Americans have foot problems serious enough to require professional attention.

Foot Anatomy

Each foot contains 26 bones, 33 muscles (intrinsic and extrinsic), 31 joints and over 100 ligaments. The feet contain a quarter of all the bones of the body (52 bones in a pair of feet), suggesting that the feet are extremely important components of the body.

The heel is composed of the calcaneus and talus which articulate with the tibia and fibula to form the ankle joint. The midfoot is composed of five tarsal bones, each uniquely shaped and fit together to create the instep. The forefoot is formed by metatarsals and phalanges creating the toes.

The foot contains two kinds of muscles, intrinsic and extrinsic. Intrinsic muscles are short muscles that run between the foot bones, while extrinsic muscles are leg muscles that extend into the feet and control movement of the feet.

There are 250,000 sweat glands in each pair of feet that release nearly a cup of moisture every day. There are more sweat glands per inch of our feet than anywhere else in the body, and their function is to keep the skin moist and supple.

The foot has several types of movement:

- Dorsiflexion, flex the foot (drawing the toes up towards the knee)
- Plantar Flexion, point the toes
- Inversion adduction of the foot (turning the foot in)
- Eversion abduction of the foot (turning the foot out)

The structural alignment of bones, ligaments and tendons in the foot results in three arches. The arches are crucial in giving the foot flexibility, absorbing shock, distributing the weight of the body and adapting the shape of the sole of the foot to the surfaces it encounters while walking.

The medial longitudinal arch runs the length of the instep along the big toe side of the foot. This arch is formed primarily by five bones (calcaneus, talus, navicular, medial cuneiform, and metatarsal I), four ligaments (talocalcaneal, calcaneonavicular and small ligaments joining the cuneiform to navicular and metatarsal), and four muscles (abductor hallucis, tibialis posterior, peronius longus, and flexor hallucis longus). This arch does not touch the ground and is involved mainly in weight-bearing tasks.

Unlike the medial longitudinal arch, the lateral longitudinal arch does contact the ground. The lateral longitudinal arch runs the length of the pinky side of the foot. The lateral arch is involved in propulsion and is formed primarily by three bones (calcaneus, cuboid, metatarsal V), three ligaments (short plantar

ligament, long plantar ligament, and plantar aponeurosis), and two muscles (peroneus brevis, peroneus longus).

The transverse arch runs from the lateral to the medial side of the foot just behind the ball of the foot. Its muscular support comes primarily from adductor hallucis, peroneus longus, tibialis posterior, and the interossei.

The Achilles tendon runs from the calf muscle down to the back of the heel. The Achilles tendon makes it possible to rise up on your toes, run and jump. The plantar fascia connects to the Achilles tendon at the base of the heel. The plantar fascia is a band of connective fibrous tissue that runs from the heel to the ball of the foot involved in forming the foot's arch. The plantar fascia aids in support and stabilization of the foot during walking. As you begin a step the heel lifts up and the plantar fascia tightens to form the curve of the arch and provides a strong push off with the toes. Toe sitting or rolling a golf or tennis ball under the foot are two ways to stretch and break up tension held in the plantar fascia.

Yoga Poses for the Feet

Proper alignment of the feet in all yoga poses is an important component in maintaining good foot health as well as energetically grounding to the earth. Proper alignment of the feet includes grounding through the four corners of the feet (the big toe mound, the baby toe mound, the inner heel and the outer heel), lifting the arches, and equally distributing weight between each foot. Lifting the toes towards the sky while standing helps to activate the foot muscles, lift the arches and ground through the four corners of the feet.

Yoga poses increase muscle tone and stretch foot muscles and connective tissue. Creating and maintaining muscle tone in the feet will improve overall foot health. Bringing flexibility and strength to the feet, toes and ankles can lead to overall better health and alignment for the body. By creating proper foot alignment, the rest of the body is able to come into alignment. Our body reflects everything we do with our feet, therefore if our feet are in proper alignment our bodies come into proper alignment.

Any pose that strengthens the lower leg muscles and feet will help improve foot problems as well as increase circulation, reduce leg cramping, help reduce swollen ankles, and create stability in the body. Listed below are a number of specific yoga poses that benefit the feet.

Virasana-Hero Pose

Virasana is an important pose for foot health. It stretches the top of the foot and ankle while toning the sole of the foot. This pose is very therapeutic for flat feet as strengthening the muscles in the feet helps recreate the arches. Virasana also, over time, reconstructs the alignment of the tarsal bones by having pressure on the tops of the feet and allowing the toes to spread.

Vajrasana-Thunder Pose

Vajrasana has many of the same benefits of Virasana as it helps to recreate or maintain healthy arches, increase flexibility in the ankle as well as reconstruct the alignment of the tarsal bones.

Baddha Konasana-Cobbler Pose

Baddha Konasana is a great pose for feet. While in Baddha Konasana pressing the four corners of the feet together and drawing the toes away from each other strengthens the foot muscles and activates the arches.

Squat with Toe Stretch (knees on floor)

Kneeling with the toes tucked under is a great way to stretch the bottom of the feet. This can be a very intense stretch for beginners as it breaks up tension in the sole of the foot.

Squat (knees up, heels on floor)

Squatting with the knees up strengthens the muscles of the feet, toes and lower legs which help the overall health of the feet.

Adho Mukha Svanasana-Downward Facing Dog

Adho Mukha Svanasana is another great pose for the feet. The feet muscles are working as your arches lift, while stretching the soles of the feet. By lengthening the plantar muscles and fascia the downward extension of the heel to the floor will develop with time.

All Standing Poses

It is important to pay attention to the foot alignment and muscle tone in all yoga poses, especially during standing poses when the feet are not only the foundation of the pose, but also the connection to the earth grounding us energetically. Standing poses emphasize establishing a firm base of support through the legs so the spine can be relaxed, light, and free. To create proper foot alignment, evenly distribute your weight between the big toe mound, the baby toe mound, the inner heel and the outer heel. Allow the toes to spread forming a firm foundation and complete support system for your body to maintain health as well as create good posture and a firm foundation for all yoga poses.

Viparita Karani-Legs up the wall

Legs up the wall will restore energy and oxygen to the legs and feet as it allows blood and lymph fluid that has pooled in the feet and ankles throughout the day to flow back into the body.

More advanced feet strengtheners and stretches:

- Rolling over toes from Adho Mukha Svanasana to Urdva Mukha Svanasana.
- Big toe hold in Padangusthasana, Utthita Hasta Padangusthasana, Supta Padangusthasana, Pascimottanasana, and Upavista Konasana. Holding the big toes with the index finger, second finger and thumb pressing with the big toe while pulling with the fingers works the feet muscles.

Other exercises for the feet

Listed below are a few other exercises for the feet to help wake up the feet, allow them to come alive and become more responsive to the more challenging yoga poses involving foot action. These are also a gentle way to work through some of the years of tension held in the feet.

Toe strengtheners

Toe strengtheners can increase flexibility, muscle tone and control of the toes. From standing, drawing the big toe up and pressing the four little toes down. Draw the four little toes up while pressing the big toe down. Draw the big toe and baby toe up as you press the three middle toes down. Draw the three middle toes up while pressing the big toe and baby toe down. Singling out each toe to act as individual entities can be extremely challenging and frustrating.

Point and Flex Foot

From Dandasana, point the toes away from the body and flex the foot by drawing the toes towards the body. This creates mobility in the ankle as well as strengthening the muscles of the feet and ankle.

Ankle Circles

Slowly take the ankle in circles in both directions clockwise and counter-clockwise. This can be done from sitting in a chair, seated on the floor or standing. This action stretches and strengthens the foot and ankle muscles while maintaining mobility in the ankle and foot joints.

Interlace Fingers between Toes

From a seated position, interlace your fingers between your toes. This stretches the muscles of the toes and allows them to spread. This action can be very challenging for some people due to confining shoes.

Tennis ball roll

Roll the entire sole of the foot on a tennis ball. This helps to warm up the feet as well as breaking up any tension being held in the feet. This exercise also accesses many important pressure points on the sole of the foot. The gentle pressure on the muscles and connective tissue can relieve tension and regain fluidity.

Picking up marbles with your toes

By using your toes to pick up marbles not only strengthens the foot muscles but also promotes the use of using toes as individual entities as opposed to a group.

Conclusion

Feet love walks, rubs, movement and attention. Give your feet the appreciation they deserve and your body will be happy and healthy. Strengthening and stretching the foot and lower leg muscles along with wearing properly fitted shoes will maintain muscle tone in the feet and prevent future foot problems from occurring. It will also begin to reduce current foot problems. By practicing yoga poses that strengthen and stretch the muscles, joints and connective tissue of the foot and ankle, your foot health, posture and overall health will improve. Your body reflects the health of your feet; therefore happy, healthy feet result in a happy, healthy body. Treat your feet well and your body will appreciate you.

Resources

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