The Importance of Correct Foot Posture

The connection between feet and posture does not receive adequate emphasis in medical education nor with personal trainers and coaches in most sport.

Our feet are not only our sensory input telling us where and how to step, but also they set up the balance of our pelvis and translate through the spine. How you use your feet has been proven to have a direct influence on your core. The way we stand on our feet, or how we move the feet, recruits different muscle lines up the leg into the pelvis.

You are probably familiar with the term pronation, (turning in – like a closed club face) but maybe you were not aware that just like there are two kinds of cholesterol, there are two kinds of pronation. Normal (good) pronation is purposefully directed from the hips to unlock the foot in preparation for the heel striking the ground during gait. It enables the foot to cushion the impact. Hyperpronation (bad) has its origin in the skeletal structure of the feet. It causes the longitudinal arch to collapse and ankle to roll inward, when the foot becomes weight bearing.

Hyperpronation causes an internal rotation of the lower extremities. Because the left foot typically hyperpronates more than the right, the asymmetrical internal leg rotation typically causes the left innominate (hip bone) to be pulled forward and down more than the right causing an unleveled pelvis and a functional leg length discrepancy. As these displacements cascade up the axial framework, or spine, scoliotic and kyphotic curves are exaggerated. The thoracic cage usually twists counter clockwise, the left shoulder usually protracts more than the right, and the right shoulder drops. The maxilla moves anteriorly causing an overjet bite. All this from your feet?

We refer to this gravity induced collapse as bio-implosion, and the health consequences are significant. These changes also result in an anterior shift in the body’s center of gravity which causes an increased load on the forefoot and increased muscular activity to maintain balance and stability. Can you imagine the effect this has on any athlete or golfer?

In the movement world, the feet are very important to the way we engage the body, and the well trained instructor will place proper emphasis on the feet in program creation. Personally, I START with the feet! Feet bring to mind metaphors for moving us forward in life and finding our sense of place and existence in the world. Yet, we give little attention to them. We squish them into poorly fitting shoes, stand for long periods of time, walk on cement sidewalks. It is only in the past few years that the golfing industry has addressed footwear...more on that later.

Body weight from our spine and pelvis is placed on the legs through the femur into the tibia. At the end of the tibia sits the talus. The talus reminds me of a turtle shell with the turtle’s head looking out. Did you know....it is also the only bone in our body that has no muscle attachments! It moves according to the structures around it. Why is this important? The talus receives the body weight from the tibia, the main weight-bearing bone of the lower leg. The tibia is curved over the top of the talus "shell" with the fibula supporting the talus on one side. As the weight then transfers from the talus, it spreads through the foot. Depending on how we are moving or standing, the bones of the feet shift from the outside or inside. These shifts are dynamic and in turn shift the whole structure of our skeleton.
As we discussed earlier, many people unfortunately pronate or collapse the medial arch and roll the arch in toward the floor or even onto the floor.

When this happens, the navicular drops and the talus is pulled down out of its neutral position. The whole pull of the pronated foot influences the femur to roll in and pull on the pelvis anteriorly. When the pelvis tilts anteriorly, we call this the “S” curve in golf.

Now, we have an anterior pelvis on this side. You can see how if you continue to look globally, the pull continues all the way up the body. By correcting the talus position you will see the body move back into a more neutral position globally. The neutral pelvis then provides the balanced position from which to engage the deep abdominals and strengthen the core.

Some people have compensated forefeet, their metatarsals don’t meet the ground in an even transverse arch. The metatarsals and toes bow or tilt toward or away from the mid line. The big toe may be higher than the little toe or the opposite, the little toe higher than the big toe when the talus is in neutral. This is due to years of walking around with the talus not in neutral. A.k.a. bad shoes. If the client has this compensation, teaching them foot corrective exercises can improve the function of the foot and in turn change their pelvic position.

Simply stated, the feet can be compared to the foundation under a building. If the foundation sags, so does the building. A forward leaning, head forward posture is common among 80% of your clients. People look and are off balance. Maximal stresses are placed on the body just from standing and walking. Over time damage is done to joints, ligaments and muscles.

For the golf conditioning and teaching pro’s reading this...

In GOLF, the swing begins from the ground up. We discuss Ground Reaction Forces (GRF) in our April gNews, but you must first understand the “WHY” of why it is important! Before you work on anything, check your client’s foot posture and gait. Watch how they stand and how they walk. Gadgets, gizmo’s and shoe inserts that are flooding the market are simply temporary bandages to foot posture. You are going to have to deal with the feet to find efficiency in the swing. Work with a conditioning specialist who understands the issues and knows what to do about it! Association members have access to a Client Footwork Handout that can be customized with your logo. Can’t tell you how many feet we have fixed and ankles we have strengthened using these exercises!

The human foot is a wonderful creation. It has 26 bones each along with numerous muscles, tendons & ligaments designed to adjust to ever changing terrain. Having strong healthy feet is essential to proper posture & body support. If we paid more attention to our feet we may lessen back issues, hip and knee pain, release our necks and improve athletic performance.