

Ankles for a Stable Foundation

For athlete and non-athlete alike, the most frequently injured joint is the ankle. Designed to move like a hinge in one plane, the ankle and its supporting ligaments and musculature resist lateral movement. A simple sideways misstep can strain or tear weak muscles or tendons and sprain ligaments; a severe twist may take weeks or months to heal. Sometimes healing will take place with a joint that is not in optimum position and predispose the joint to future injuries.

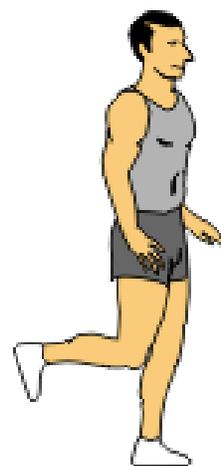
That is why ankle stabilizing exercises such as those that follow should be part of your weekly workouts, particularly if you are starting any new activity that puts added stress on your ankles or if you have a history of “weak” or hypermobile ankle joints. When tears in the ligaments heal they leave scar tissue, which is less flexible than undamaged tissue and with stress may be more likely to “rip” again.

The following exercises are geared to help return blood supply and gently stress the ankle joint which will help increase the strength of the ligaments and muscles supporting the joint. As the connective tissue increases in strength the joint itself will tend to be more stable and capable of functioning in physically demanding situations.

Ankle Balance Exercises

While this exercise seems very easy and simple it has far reaching effects. The goal is to maintain your balance while standing on one foot which will help develop the joint stabilizers in your foot but as well as improve central nervous system balance function.

1. While standing next to a wall, chair or anything that you can hold on to while standing, bend one knee lifting that foot off the floor. Hold your knee close to the standing thigh and try not to “wobble” around. With your standing leg’s knee slightly bent make sure your foot is on the ground with the big toe and little toe as well as the center of the heel all equally distributing your weight. Hold this position for 10-30 seconds initially attempting to see if it is possible hold the wall or chair gently or not at all while standing on one leg. Rest for 30-60 seconds and then attempt this on the other side. Repeat until you have performed this exercise on each side for three times.
2. As you perform this exercise you can begin to hold the leg for longer periods of time and not hold on as long or at all to the wall or chair. If one side is easier than the other, make sure to do the side that is harder longer and more often, but never to the point of exhaustion, discomfort, or gross instability. After performing this exercise initially, when it becomes relatively easy, consider trying this with eyes closed, making sure to have a wall or chair close by for support. Falling over does not help anyone gain stable ankles so do this exercise with caution starting in easy gradually increasing increments.



Ankles for a Stable Foundation (Continued)

Ankle Balance Exercises – Advanced

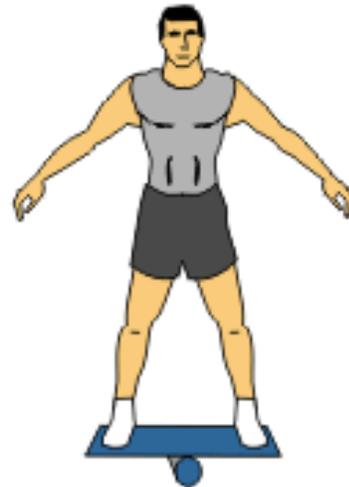
The previous exercises are excellent beginning exercises but if you become very proficient and need more of a challenge then it is time to step it up a bit and use a rocker board (contact my office if you need one). A rocker board is preferred over one that is round or pivots in 360° of movement because of the shape and nature of the ankle hinge joint. Ultimately we want to stabilize the ankle in the front and back motion and side to side only at this time.

Before starting this exercise it is recommended that you use one with the lowest height when beginning, you have something to hold onto for stabilization so you do not fall, and remember to have both feet with their big and little toe and heel all touching the board equally. Usually it is a good idea to have your knees slightly bent making sure to have your body upright and not leaning forward, backward, or to one side – although for brief periods of finding your balance this will usually occur.



1. It is good to spend equal time standing with the feet facing perpendicular and parallel to the rocker part of the board. This will give you equal time practicing balance in the forward and back and side-to-side positions. The side-to-side position is particularly important for those who have sprained their ankles or “rolled” them inwards. Begin in each position for 10 to 30 seconds making sure to hold onto a support initially, gradually gently touching the support, and then releasing the support for moments at a time, until you can hold yourself up without any support.

2. As you find your balance point, where it is easy to balance yourself, you can hold that position for as long as you can, with some who are especially advanced that might be for a full minute. Two things are happening during this exercise: (1) your ankle muscles, ligaments, and joint are gaining strength and stability, and (2) you are developing better neurological balance sense all the way from the nerve receptors on the bottom of your feet to the balance centers up in your brain.

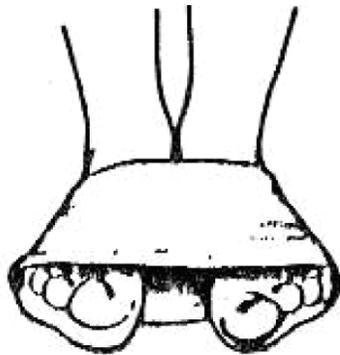


Ankles for a Stable Foundation (Continued)

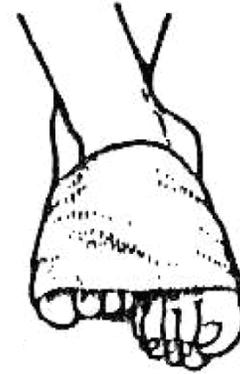
Ankle Resistance Exercises

There are many types of ankle resistance exercises. The goal is to stimulate the muscles, ligaments, and joints so that there is increased blood flow to the joint. As we age, blood flow to the joint and connective tissues diminishes and reduces healing of ligaments and cartilage needed for ankle support. Increasing blood flow increases healing and strengthens bones, ligaments and muscles.

The following is one exercise that can be performed using “Therabands,” stretchy elastic material, or even used bicycle tubing (recycling for a low carbon footprint). To start the exercises sit with your knees, ankles, and feet together. Wrap the elastic material or bicycle tubing around your feet. Initially you may want to work with elastic material that is easier to stretch and work up to stiffer material as you progress over the weeks.



While keeping your little toes upward pull the front of your feet apart pushing against the elastic material, then pull your heels apart; repeat 10 times. Next try pointing one foot at a time, up and then down, 10 times each.



Then cross your ankles and push the top foot outward; repeat 10 times, then switch feet.

Alternative Ankle Resistance Exercise

There are many alternatives, the following are some other examples of how you can tie the elastic material to a stationary object and then use your foot to stretch the elastic material and work muscles around your foot and ankle. Always best when starting these exercises for the first time to use material that is easier to stretch and then in the ensuing weeks work up to stiffer material if desired.

