

1.4 – Locating the Proper Tripod

“How do we deal with an athlete who cannot find their tripod?”

This specific question is the very basic element that we must initially address when beginning training. Regardless of the exercise selection or drills that we do after, if the athlete cannot find their tripod all subsequent training will fall short of producing positive results in performance. Every drill and exercise moving forward will become an adaptative compensation pattern only aiding to deepen the preexisting faulty issues in the foot and ankle. To develop the tripod, the athlete must first learn to properly balance on their foot. Anyone can balance on their foot but where you see athletes begin to make mistakes is when they attempt to balance on a foot that lacks a proper tripod function. The athlete will instantly compensate exhibiting a drop reflex in their toes. They will instinctively grab the ground with their toes searching for a center of balance. This raises the tripod off the ground and now you are left with five weak structures (*Metatarsals*) trying to support the foot instead of the natural arch. In this position of the foot, the center of mass is elevated and thus becomes less stable. Bottom line, it is an absolute must that this problematic pattern in the foot is viewed as king and corrected first as all exercises, drills and strength work will fall short of their true potential if it is not fixed.

The baseline, most simplistic way to correct this problem is to perform a single leg squat. We will have the athlete stand on one foot and then pull their toes off the ground. Make sure that you pay close attention to this cue as this is the most important aspect of the exercise. During this movement you will be able to see the true function of the athlete's foot. Once the athlete is standing in a single leg stance and their toes are pulled off the ground, they will need to find a perfect sense of balance. Often times you will see athletes fall laterally to one side. This imperfect shift in distribution of body weight and balance will highlight how inefficient their foot is actually functioning. To make this exercise more complex you can have the athlete move their arms around, stand on unstable surfaces or even close their eyes. This will force the foot to find balance rather than allowing the athlete's eyes to find a horizon point and guide balance through vestibular or visual feedback.

Quick review, the vestibular system is a sensory feedback system responsible for regulating our movements and awareness in space. This system provides the brain with information about balance and helps to control how the body interprets visual input. Simply stated the vestibular-ocular reflex is an autoregulating response that helps to maintain balance during movements of the head by relaying information from the eyes to the vestibular system and vice versa. This is why it is easier to balance when staring at a focal point as the eyes and vestibular system are adjusting to every micromovement of the head. Often times we will have the athlete close their eyes during a movement to identify if there is a visual, vestibular or proprioceptive issue within the body.

Once the athlete can find a proper point of balance, they will complete an ankle squat. This is performed by having the athlete stand toes off the ground and driving their knee over their second toe. As soon as their hips start to hinge, instruct them to stand up from the squat. At first, the athlete may not be able to get very deep into the squat however, keep in mind that we are in the infant stages of properly developing the skill of the movement. Once again, while performing the single leg squat you will be able to identify all the compensation patterns that the athletes have from poorly functioning feet and ankles. Too many times you will see as the athlete tries to go down into the squat, they bend at their hips first, then bend at the torso (bow) and often times even completely losing their balance.

By performing this movement in a slow and highly cerebral manner all of the compensation patterns, twists and torsions are able to be identified on a magnified level. While it will be very challenging for the athlete, to identify true function of the foot decrease assistance of the eyes and vestibular system by having the athlete close their eyes. Less visual input means that the foot must function and find balance on its own without any external assistance. Once the athlete can perform a perfect single leg tripod squat they can begin to progress on to other exercises.