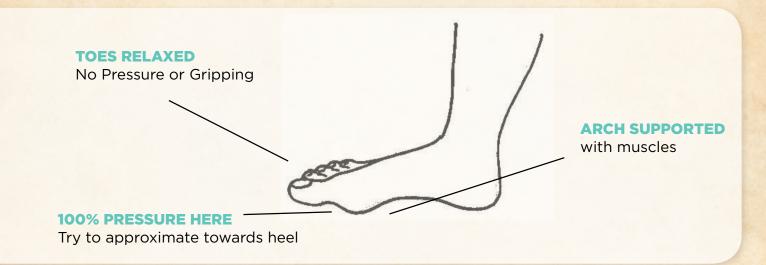


## Training the Intrinsic Muscles of the Foot



**STEP #1**: Stand in front of a wall, with the feet shoulder width apart and knees slightly flexed. The fingertips may be lightly placed on the wall.

**STEP #2**: In order to increase the height of the medial longtitudal arch (MLA) and achieve subtalar joint neutral, slightly supinate the foot by lifting all the toes off the floor - while at the same time actively attempting to approximate the head of the first metatarsal (the part of the ball of the foot that is just behind the big toe) towards the heel, without flexing the toes. Even weight distribution is maintained between the ball of the foot and the heel, (ie the ball and heel are in firm contact with the ground). Once this position is attained, then slowly drop the toes down again but maintain the MLA. It is important to note that you are **NOT** just rolling your ankle to put the weight on outside of your foot – and you are **NOT** creating the arch to lift by flexing (scrunching) your toes. Once toes return to the floor there should be no pressure with your toes. The picture below shows where the pressure should be – not on the toes.



**STEP #3:** While actively maintaining the MLA, stand on a single leg. The knee on the weight-bearing lower extremity should ideally be flexed 10-20° to help the contraction of the quadriceps muscle and the potential facilitation of the intrinsic foot muscles (IFM). The fingertips should remain lightly on the wall for balance and fall prevention.

**STEP #4:** Hold the position for a count of 10 seconds and attempt to maintain the MLA as steady as possible during the entire time without any compensatory extrinsic foot muscle activity. Following the 10-seconds, slowly and with eccentric control allow the foot to pronate and the MLA to lower to a relaxed state.

**STEP #5**: Following 1-2 seconds of rest, actively re-supinate and repeat steps 3-4. Perform up to five repetitions of this concentric, isometric and slow eccentric IFM retraining exercise, several times per day.

The IFM retraining exercise may be progressed by gradually lifting the fingers off the wall and performing them in unsupported single leg standing with eyes open and eventually with eyes shut.