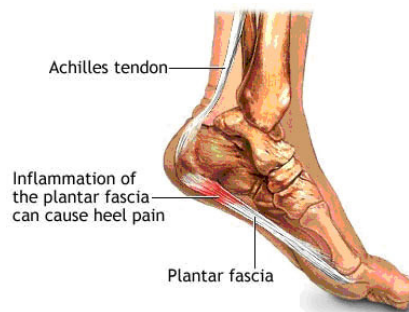


Running Injury Prevention

Tip of the Week

Preventing Plantar Fasciitis

Plantar Fasciitis is one of the most common causes of heel pain in runners. It involves pain and inflammation of a thick band of tissue, called the plantar fascia, which runs across the bottom of your foot — connecting your heel bone to your toes. Plantar fasciitis causes stabbing pain that usually occurs with your very first steps in the morning. Once your foot limbers up, the pain of plantar fasciitis normally decreases, but it may return after long periods of standing, getting up from a seated position, or running/walking.^[1]



The main physical causes of this condition are:

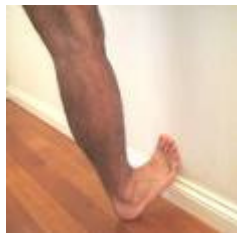
- Tight calves will increase tension on the plantar fascia.
- Altered foot function: Excessively flat or high arches.
- Lack of big toe extension- Upward movement of the big toe.
- Tight hip flexors will reduce ability to use gluteals in ‘push off’ phase of stride, hence increasing the work load on the plantar fascia and calves.^{2}
- Reduced gluteal and hamstring strength will again increase the demand on the calves and plantar fascia, predisposing to overload of these structures.^{2}

Other non-biomechanical reasons for the condition can be improper running technique, worn-out or improper running shoes, and increasing mileage too fast. If you feel any of the non-biomechanical reasons may be an issue, please confer with your running store or coach.

From a physical standpoint, the best way to prevent Plantar Fasciitis is to obviously correct the causes by performing stretches and exercises to correct any of these above dysfunction. Stretching for the Gastrocnemius (upper calf), Soleus (lower calf), hip flexors (See picture below), and the Plantar Fascia (See picture below). Secondly, you need to be evaluated to determine if you have excessively flat or excessively high arches. If you have flat feet, an orthotic may be beneficial. With high arches, manual therapy can help reduce the rigidity and tightness of the foot/arch. Lastly, strengthening

of the glutes and hamstrings (along with hamstring flexibility) are vital to proper push-off mechanics during running.

If you are, or in the future, suffer from Plantar Fasciitis, conservative treatment usually does a great job of freeing you from your pain. In our practice we utilize Active Release Technique (www.activerelease.com), Graston Technique (www.grastontechnique.com) and Kinesio® Taping along with other modalities to treat the pain and prevent it from coming back. I recommend you familiarize yourself with the above techniques if you are a runner; they are the top conservative treatment methods running related over-use injuries.



Dr. Kevin Christie is a Chiropractic Physician with a private practice in Plantation, FL who is certified by the Active Release Technique's Biomechanics program that specializes in the treatment and biomechanical assessment of running and walking related over-use injuries. If you have any questions regarding golf related injury prevention or treatments contact Dr. Kevin Christie and drkchristie@gmail.com or (954) 856-1399.

References.

1. <http://www.mayoclinic.com/health/plantar-fasciitis/DS00508>
2. www.tri2aspire.com/tips2_plantar.htm