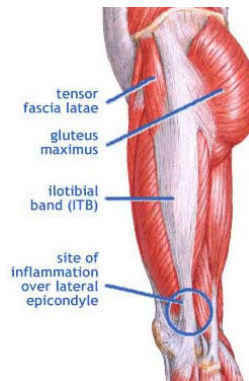


Running Injury Prevention

Preventing IT Band Syndrome

IT Band Syndrome is one of the most common causes of knee pain in runners. It is an overuse injury caused by repetitive friction of the iliotibial band across the Lateral Epicondyle (see image below). This syndrome presents as lateral (outside) knee pain due to tightness of the ITB and hip abductors. As a result of movement of the band during flexion and extension of the knee and hip, a tight band could be responsible for the inflammation at the knee or even the hip, or along the IT Band.



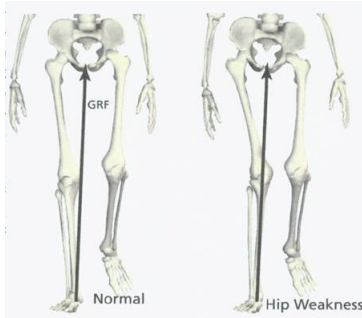
The main physical causes of this condition are:

- Tight IT Band.
- Altered foot function: Excessively flat feet cause the lower leg to internally rotate excessively, adding a stretch tension to the IT Band.
- Decreased Glute Medius/Maximus function.
- Overactive TFL muscle due to lack of Gluteus Medius function
- A weak or inactive Vastus Medialis (VMO). This is the inside muscle group of the quadriceps and tends to become weak on people.
- Medial (inward) knee migration during walking/running.
- Leg length discrepancy.
- Tightness of hamstrings/Quads/Calves

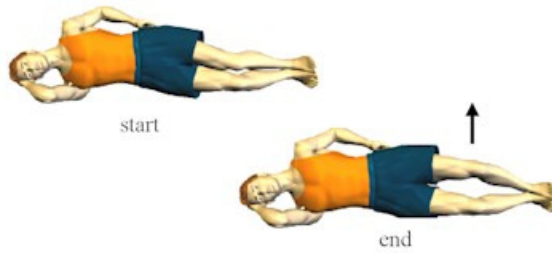
Other non-biomechanical reasons for the condition can be improper running technique, worn-out or improper running shoes, hill running, canted running surfaces, and increasing mileage too fast. If you feel any of the non-biomechanical reasons may be an issue, please confer with your running store or coach.

From a physical standpoint, the best way to prevent IT Band Syndrome is to correct the causes by performing stretches and exercises to correct any of these above dysfunction. Stretching or foam rolling for the IT band, Hamstrings, Calves and Quads is

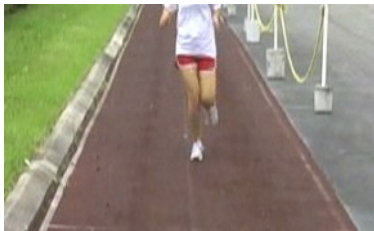
necessary. Secondly, you need to be evaluated to determine if you have excessively flat arches or excessive pronation of the ankle. If you have flat feet, an orthotic may be beneficial. Lastly, strengthening of the hip stabilizers (glutes) and proprioception training of the ankle are recommended.



1-Leg Stance Test for hip/foot/ankle instability



Gluteus Medius Activation for hip stability



Hip instability causing knee inward migration
This places excessive stretch on the IT Band



Foam Rolling for IT Band

If you are, or in the future, suffer from IT Band Syndrome, 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.