

Iliotibial Band Friction Syndrome and Greater Trochanteric Bursitis

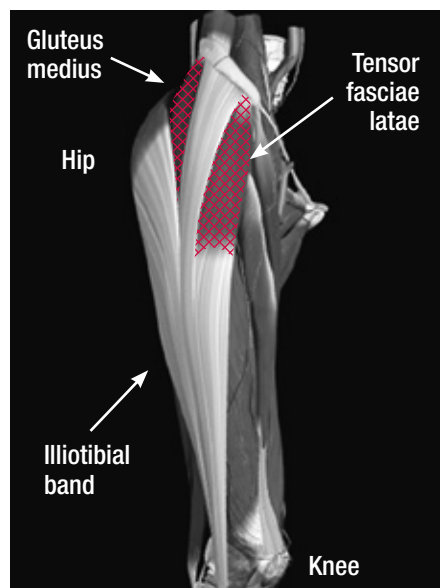


Figure 1

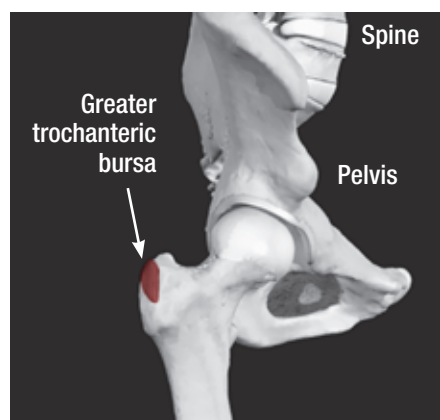


Figure 2

Iliotibial band (ITB) friction syndrome and greater trochanteric bursitis (GTB) are typical overuse conditions frequently observed in individuals that participate in running and bicycling. Both conditions are usually associated with repetitive hip and knee flexion (bending) and extension (straightening).

Anatomy

The ITB is composed of fibrous connective tissue which extends from the lateral hip downward, crossing the knee joint on the lateral side before inserting into the front and outside of the shin bone (tibia). (Figure 1) The muscles that insert into the upper portion of the ITB are the gluteus muscles posteriorly (back) and laterally, and the tensor fascia lata anteriorly (front) and laterally. Tightness, secondary to weakness in these muscle groups, may be a contributing factor in symptoms of both ITB friction syndrome and GTB.

In simple terms, the ITB can be viewed as a large rubber band extending from the lateral hip to the lateral leg, which functionally crosses two joints, the hip and the knee. It is believed that the

repetitive rubbing of the ITB across the lateral aspect of the knee bones causes the inflammatory response and pain.

The greater trochanteric bursa (Figure 2) is a fluid-filled sac that essentially serves to lubricate the gluteus medius muscle as it inserts into the bony prominence of the lateral hip, called the greater trochanter. This facilitates fluid movement of the gluteus medius during function.

Signs and symptoms

ITB friction syndrome is an achiness or pain typically found over the lateral (outside) aspect of the knee. The onset of this pain usually occurs toward the middle or end of running or bicycling. It is not unusual for the pain or achiness to continue for some time after completion of the exercise.

Symptoms of GTB are usually noted over the lateral aspect of the hip. Similar to ITB friction syndrome, achiness and pain is usually evident toward the end of running or bicycling, although the symptoms may persist well after conclusion of the exercise.

continued

Potential Predisposing Factors

- Excessive bow-leggedness (genu varum)
- Insufficient strength of core muscles such as the glutes and abdominals
- Overpronation (hypermobility) of the foot/ankle joint with impact
- Leg length discrepancy
- Improper training
 - Insufficient warm-up and/or cool-down
 - Insufficient post-exercise stretching
 - Overtraining
 - Running on a crowned surface or short track

Treatment & Prevention

- Initiate and maintain quality warm-up and cool-down
- Consistent stretching of ITB and hip musculature
- Individualize running shoes/orthotics based on foot/ankle function
- Evaluate core muscle strength as it relates to symptoms
- Avoid crowned surfaces/running same route every time
- Evaluate running regimen for poor progression
- Consider decrease in training



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References

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(Referenced from website: <http://www.physsportsmed.com/issues/20040104.meislin.htm>)

Orchard, JW, Fricker, PA, Abud, AT & Mason, BR. (1996). "Biomechanics of Iliotibial Band Friction Syndrome In Runners" *American Journal of Sports Medicine* 24(5), pp. 375-379.

Physician and Sportsmedicine Jan 2004, Volume 32, Issue 1, p 25 Meislin & Idjadi "Snapping Hip Syndrome: Targeted Treatment For Maximum Pain Relief"