

# Newsletter

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## Iliotibial Band Syndrome

Iliotibial Band Syndrome is one of the most common, and often most frustrating, running related injuries. It is also easily corrected if diagnosed and treated early before it becomes chronic. Iliotibial Band Syndrome is one condition that often responds well to chiropractic treatment because of the relationship between the pelvis and the muscles that attach to the pelvis. If faulty pelvic mechanics are evident (i.e. restriction in the normal joint play of the pelvis) then the muscles that attach to the pelvis will not work as efficiently. If they pull at a slightly different angle, they'll often get tight and sore. Stretching helps, by alleviating some symptoms but it doesn't correct the biomechanical dysfunction. Remember, "Functional Balance is the Key to Optimal Performance".

### The Anatomy

The Iliotibial Band (ITB) is a thickening of the fascia, or the outer casing of the muscle, that runs up the outside of the thigh. Fascia is like a sausage casing and the ITB is a thickening of that casing. It originates up by the top of the hip and ends on the outside of the knee. You can feel your ITB when you stand. It causes the outside of your thigh to become very firm and tight while your thigh muscles remain more relaxed. In fact, that's one of the reasons we have an ITB – it holds our legs straight when we stand, thereby allowing the bigger thigh muscles a chance to rest. The two main muscles that are addressed when dealing with ITB syndrome are the Gluteus Maximus (the buttock muscle) and the Tensor Fasciae Latae (TFL) muscles. The TFL muscle is a little muscle but it is responsible for most of the work while we stand, thereby allowing the larger muscles to rest. You will sometimes hear ITB syndrome referred to as the TFL syndrome – the two terms are synonymous.

### Signs and Symptoms

- Lateral (outside) knee pain – NOTE – very few conditions, other than a ligament sprain, will present as lateral knee pain therefore this alone is often diagnostic.
- Pain is often worse after running, especially after climbing hills and often aggravated by climbing stairs.
- Pain that is very sharp and stabbing.
- Sometimes associated with a 'snapping hip', in which the muscles that cross the outside of the hip can be felt to snap or click walking or running.
- Pain may also present as lateral thigh pain more so than knee pain but is rarely focused primarily in the hip or gluteal muscles.
- Can often be attributed to some form of over-training – sudden increase in mileage, hill repeats, etc.

### Pathology

The lateral knee pain is being caused by the ITB pulling up on its insertion on the outside of the knee. Underneath the ITB near its insertion at the knee is a bursa. Bursae are fluid filled sacs that decrease the pressure where rubbing and friction occur. Continually contraction of the TFL causes the ITB to be chronically tight and this puts excessive pressure on the bursa and that bursa reacts by becoming inflamed and swollen, giving you pain. The ITB was pulled tight by one of the two muscles mentioned

above – the TFL or the Gluteus Maximus. Running up hills, for example, uses more of the glutes than running on flat surface, therefore it will often trigger a bout of ITB pain. That also explains why the pain is often aggravated by hill repeats. The ITB can also be aggravated by running on uneven roads or on tight indoor tracks, running in poor running shoes or if your foot pronates (arch collapses). If there was an underlying problem with pelvic mechanics, this may have contributed to the ITB problem. *Just Think About it!* You run with both legs equally – why would one leg get ITB pain and not the other?

### What To Do About It

First off, if you have faulty pelvic mechanics you'll have a lot of trouble getting rid of ITB pain on your own. Stretching probably won't do it alone. So, if you've been dealing with ITB for more than 2 weeks with just stretching, ice, exercises, etc. and you're not improving much, have a chiropractor check your pelvic mechanics. We have seen numerous patients who have tried TFL stretching, ice, ultrasound, etc. over the outside of the knee with little success. That's because the problem is not at the insertion in the knee – that's just where the pain is! The problem is higher up. And with that said, it's also important that you remember which muscle is the bigger of the two and which muscle works more when we climb hills. **The Gluteus Maximus is often overlooked as a major contributor to the ITB Syndrome.**

- Address faulty pelvic mechanics.
- Reduce or stop running (especially hills) until pain has disappeared. Maintain fitness with cycling, water running, roller-blading or any other activity that does not increase symptoms.
- Use ice over outside of the knee when pain is severe.
- Stretch the Glutes and TFL muscles.
- Self –massage over the outside of the thigh, or deep massage of the glutes is also useful.
- Use hot tubs or Epsom salt baths to loosen the muscles before stretching.
- Address any potential faulty foot mechanics (pronation), get the right pair of running shoes for your foot and / or orthotics.
- Return to running gradually. Build up slowly to pre-injury training level. Add hills gradually.