



What is it?

The iliotibial band is a large band of fascia that extends from the outside margin of the pelvis, down the lateral (outside) leg attaching onto the top of the tibia in the lower leg. The IT band, along with the muscles that attach to it, functions to stabilize the knee and provide motion at the hip. ITBFS is an overuse type injury common in runners, athletes and individuals exposed to repetitive strain type motions in the work place. Pain typically results from repetitive compression of the fat pad that sits between the IT band and the lateral knee or from repetitive friction of the IT band where it crosses the knee. Factors that may contribute to its onset include sudden increases in volume or intensity of exercise, increase in running mileage, improper warm up before activity, muscular tightness or inflexibility, genu varum (bow-legged appearance at the knees), excessive pronation of the foot, among other sources.

What do people experience?

Symptoms are typically insolated to the lateral or outside portion of the knee and may include:

- Sharp pain or a dull ache which typically starts shortly after the onset of activity and may persist after stopping activity

- Muscular tightness
- Swelling
- Stiffness upon waking in the morning
- Pain while flexing the knee

Risk factors & how to avoid discomfort

Risk factors for discomfort include:

- Too much, too soon, too fast
- Increase running mileage or training intensity too quickly can be a source of injury
- Poor running mechanics
- Activities with lateral (side-to-side) movement or sudden direction changes
- Poor fitting or worn out footwear
- Unsupportive footwear, such as sandals or poorly structured shoes
- Uneven terrain – avoid surfaces with uneven terrain like trails or loose gravel as they may place a greater strain on the involved tissues
- High impact and high volume or intensity of exercise
- Depending on your mechanics, being over weight or obese may increase the strain on the muscles and tendons in your lower legs
- Your mechanics – depending on your alignment and mechanics, you may be predisposed to IT band strain. Consult with your Physiotherapist or Pedorthist if you suspect this may be the case

What are my options for treatment? Who else can help?

Your family physician typically serves as the first line of defense for treatment and will be able assist you with medications and life style alterations if appropriate, or to refer you to the right type of medical professional for further care.

Physiotherapists and Kinesiologists may be appropriate to assist with exercises, stretches or lifestyle alterations; Pedorthists may be appropriate to control motions of the foot that may be impacting the strain place on the iliotibial band and associated tissues; Kinesiologists may assist with ergonomics (ensuring living environments and work stations are conducive to your posture and mechanics);

Massage Therapists may be able to assist with muscular stiffness or discomfort. As you can see, there are a number of ways to address ITBFS. It is our hope that the information provided here will be enough to start your road to recovery!

Staying active with pain

Staying active while you recover is important for overall health and well-being. Appropriate exercise selection however, is important. As a general guideline, avoid any exercises or activities that induce or intensify your symptoms. That means both during and after the activity. With soft tissue injuries, once the tissue is warmed up it will often feel fine while active and the discomfort will set in once you stop the activity, after a period of rest, or may come the next morning when you get out of bed. If this is the case, reduce the intensity or duration of the activity until you reach a point that does not induce your symptoms. In particular, limit repetitive strain type activities such as running and cycling. While recovering, chose mild intensity exercises or cross training activities that will keep you active while helping to encourage a healthy recovery.

DON'T LET ITBFS GET YOU DOWN. GET BACK ON YOUR FEET, TODAY.

To feel better, read on!

How can SoleScience help you feel better?

Gait and movement testing:

Static alignment and posture analysis

- Strength and flexibility testing
- Dynamic movement testing
- 2D clinical gait analysis
- 3D clinical gait analyses

The Pedorthists at SoleScience will work with you to start feeling better, immediately following your first visit. While you are waiting for your custom foot orthoses to be manufactured (typically 3-5 days), your Pedorthist will work with you to improve comfort, both in and out of the house. Whether you know it or not, both the shoes and activities that you select may be your best friend or your worst enemy!

Our take on the need for custom foot orthoses

Your foot type and movement patterns are almost as unique as your fingerprint. Depending on your specific mechanics, custom foot orthoses may be used to support the motions of the foot and lower leg that may be contributing your discomfort. The position at which your heel strikes the ground while walking and/or running, as well as the degree to which your foot pronates may be contributing to the strain placed on the IT band and associated musculature. With support found in the current medical literature, custom foot orthoses have been suggested to reduce the excessive movements at the foot that may be resulting in increased demand placed on the supporting knee and hip muscles. If it has been confirmed, or you suspect that you may have a ITBFS, call the experts at SoleScience to see if you may be a candidate for custom foot orthoses.

Custom vs. OTS

OTS or off-the-shelf orthotics are pre-fabricated devices that can be fit in to your shoes right from the shelf. This type of orthotic is typically heat moldable allowing for a degree of immediate customization. Truly custom-made foot orthoses are differentiated in that they are designed specifically around a 3D model of your foot. This type of orthotic can be completely tailored to suit your needs. Depending on your symptoms and mechanics, OTS devices may be a great first step. In cases where the support offered by the OTS device is enough to address the concern, awesome that may be as far as we need to go. If the OTS device provides some relief but doesn't quite offer enough support, or if it does not match well to your foot type, custom may provide the most comfort and relief of symptoms.

Footwear recommendations

Appropriate footwear selection is important for day-to-day comfort and depends on your specific mechanics. Generally speaking, footwear with ample cushion and support work well while recovering from ITBFS. It is important however to ensure your shoes are not overly supportive to the point that they may be contributing to your injury. Footwear with added support for the inside part of your foot, such as a pronation control or stability shoes, are intended to limit how much your foot pronates, or moves toward the mid line of the body. In cases when this movement is already naturally reduced or just the opposite, your foot moves away from the midline of the body (supinates), this type of shoe may actually worsen your symptoms. No matter which shoe you select, proper fit is vital. Length, width, depth and heel height are important considerations to make. Consult with your Pedorthist for recommendations specific to your foot type and intended use.