

THE INJURY

Iliotibial band syndrome (ITBS) has been compared to the feeling of somebody stabbing you in the side of the knee when you run, especially when going downhill. This annoying and painful injury can quickly become crippling if not addressed and corrected. The iliotibial band is a thick piece of connective tissue that runs parallel to your femur (thigh bone) from the outside of your hip to just below your knee. Pain is characteristically felt at the end of the IT band where it attaches to the outside edge of the knee.

THE SYMPTOMS

- Pain is most frequently felt as a sharp point on the outside of the knee, or (rarely) as sharp pain on the lateral side of the hip.
- Commonly, pain occurs after a certain amount of running; not in the first few steps.
- While pain generally goes away after stopping activity, it often comes back when running is resumed.
- It's most common in new runners, or after an increase in mileage or hill running.

THE CAUSE

The short answer is... lots of things. Most people mistakenly believe that ITBS occurs because of a tight IT band — but the IT band is supposed to be tight to do its job! The source of the problem is almost always weak hip and gluteus muscles. Weak gluteus muscles result in excessive side-shifting or movement of the pelvis which causes your femur (thigh bone) to move abnormally; the outcome being unusual loading of the supportive IT band, 'pulling' it away from your knee.

Running downhill and always running on the same side of the road are common culprits. Running on the same side of the road close to the pavement can be problem because of the camber of the road which means your pelvis is tilted as one leg is always 'longer' angled down into the gutter. This also applies to track/field running where your inside leg takes shorter strides than your outside leg — again you should run around in both directions to 'even' things out and prevent injury. Running at angles puts a lot of stress on the side of the knee and can cause friction between the IT band and the femur. Over-pronation and a leg-length discrepancy can also be contributing factors.

ILIOTIBIAL BAND SYNDROME ADVICE FOR RUNNERS

Many runners find that as fatigue sets in, their ankles or knees collapse inwards, which in turn pulls on the IT band, forcing it to rub against that bony spot on your knee. This re-enforces the importance of having strong legs to prevent injury. This can be achieved through specific strengthening exercises.

THE FIX

ITBS can be challenging to treat, but gluteus muscle and hip strengthening are immensely important in both the prevention and treatment processes. A regimen of icing and anti-inflammatories will assist in reducing pain. A foam roller can be used to loosen up tight structures as can massage. Physical therapy treatments will work on releasing structures that are shortened and tight — movement-based treatment for soft-tissue injuries will help to break up scar tissue and restore normal function. Strengthening exercises for hip abductors, core and gluteus muscles will be prescribed by your physical therapist along with a stretching programme. Avoid aggressive downhill running, ease off on the volume and intensity of training (or take a complete rest if that is advised and cross train to keep fit).

THE PREVENTION

Maintaining good soft tissue mobility is essential. Regular stretching and massage as well as foam rolling can help prevent the development of ITBS. Strengthening the gluteus muscles and hip, including your core will provide a more stable pelvis and reduce the 'tugging' on your ITB. A little prehab goes a long way to preventing most running injuries, and is less costly and time-consuming to practice healthy than when injured. Always look at your training programme and monitor volume and intensity, as well as excessive downhill routes, too much too soon will cause ITBS. Remember tips like running on different sides of the road and switching directions if running the same routes

frequently or round a track. Have your form assessed for excessive pronation and get advice about orthotics, as they may help prevent an injury. Vary running surfaces as well. Mix hilly runs with flat routes. Try trails and soft surfaces to ease the pounding placed on legs by only running on roads.



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ILIOTIBIAL BAND SYNDROME REHABILITATION

YOUR REHABILITATION PROGRAMME

This programme has specific exercises to treat iliotibial band syndrome. Whilst stretching the ITB can be tricky, it is vital to strengthen the gluteus and hip abductor muscles, along with your core. A stable strong hip and pelvis will off-load the ITB. It is important to ensure the exercises are performed with good technique and good postural control. Make sure to repeat the same number of exercises on both legs. Make sure you are always pain-free and take care not to progress too quickly. We have given suggested sets and repetitions, and the exercise routine should be performed twice a day. Remember everyone is different so

your therapist may give guidance that is more specific to you.

WARM UP AND COOL DOWN

If muscles are tight, weak or injured, it is particularly important to warm up (unless advised otherwise by your practitioner) with a brisk walk or a gentle jog at a pain-free pace for 5 minutes before you start your exercises. This increases your circulation and helps prepare the muscles for the activity to come. When you have finished your exercises, end the session with a 5 minute gentle walk or slow jog to allow your heart rate to slow down gradually.

HIP ABDUCTION GLUTEUS MEDIUS SIDE-LYING

Lie on your side, and lift your leg upwards. You can hold this position, or move your leg up and down. This exercise predominantly strengthens your outer hip and gluteal (buttock) muscles, but also mobilises a stiff hip joint. You can progress this by having an elastic band tied around your ankles, so as to resist the movement of lifting your leg.

Repeat 12 times | Perform both sides



 **Video:**

<http://youtu.be/gNvzHTyPujs>

CLAM

Lie on your side, with both knees bent. Keeping your feet together, squeeze your deep abdominal muscles by drawing the belly button inwards. Open your knees, like a clam, hold, and return to the start position. This is a good strengthening exercise for your gluteal (buttock) and outer thigh/hip muscles.

Repeat 12 times | Perform both sides



 **Video:**

<http://youtu.be/IECrWm-3SKo>

SUPINE BRIDGE BASIC

Lie flat on your back, with your knees bent, squeeze your bottom muscles and lift your body upwards. Keep your arms by your side and use them to help you balance. Make sure you maintain good posture (do not over-arch your lower back) and contract the deep abdominal muscles by squeezing your stomach towards your spine. This exercise helps to strengthen the abdominal, lower back, gluteal and hamstring muscles. This exercise can be progressed to single leg bridging by straightening one leg and then lifting your buttocks off the floor, keeping your hips level.

Repeat 12 times | Hold for 5 seconds



 **Video:**

http://youtu.be/fK_xUE3OKIE

SIDE PLANK

Lie on your side, and form a bridge between your feet and forearms (by lifting your pelvis). This exercise works the abdominal and oblique muscles.

Repeat 2 times | Hold for 60 seconds | Perform both sides



 **Video:**

<http://youtu.be/vQKLvMTYA9Q>

LATERAL WALK WITH EXERCISE BAND

Place an exercise band around your knees, and go into a squat position (as far down as feels comfortable). Walk one leg to the side, and then follow with the other leg. Repeat to one side for five steps, then return to the start position.

Repeat 5 times



 **Video:**

<http://youtu.be/i0w7KczRvkk>

SINGLE LEG PISTOL SQUAT

Position one leg out straight in front of you, then perform a full squat as low down as you can go comfortably. Caution: this exercise is for those with healthy knees, and you should be well conditioned before attempting this.

Repeat 5 times | Perform both sides



 **Video:**

<http://youtu.be/5ixHYaRrPqE>

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