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Iliotibial Band Syndrome

What is an Iliotibial Band (IT Band) injury?

Iliotibial band syndrome is inflammation and pain on the outer side of the knee. The iliotibial band is a layer of connective tissue, beginning at a muscle near the outer side of your hip, traveling down the outer side of your thigh, crossing the outer side of the knee, and attaching to the outer side of your upper shin bone (tibia).

How does it occur?

Iliotibial band syndrome occurs when this band repeatedly rubs over the bump of the thigh bone (femur) near the knee, causing the band to be irritated. This most often occurs in running.

This condition can result from:

- ▶ having a tight iliotibial band
- ▶ having tight muscles in your hip, pelvis or leg
- ▶ your legs not being the same length
- ▶ running on sloped surfaces
- ▶ running in shoes with a lot of wear on the outside of the heel.

What are the symptoms?

The symptom is pain on the outer side of the knee.

How is it diagnosed?

Your health care provider will examine your knee and find tenderness where the band passes over the bump on the outer side of your knee. Your iliotibial band may be tight.

How is it treated?

Treatment includes the following:

- Ice your iliotibial band for 15 minutes every 3 or 4 hours for 2 to 3 days or until the pain goes away. You can also do ice massage. Massage your knee with ice by freezing water in a Styrofoam cup. Peel the top of the cup away to expose the ice and hold onto the bottom of the cup while you rub ice over your knee for 5 to 10 minutes.
- Take an anti-inflammatory medication, according to your health care provider's prescription.

- Do the stretching exercises recommended by your health care provider, focusing on the IT band and the quadriceps muscle.
- Have your running store complete a gait analysis to ensure that your shoes are not contributing to the problem. Custom orthotics may be helpful.
- See a healthcare provider that is familiar with athletic injuries and experienced in treating athletes. These providers will accelerate your healing and return you to your sports as rapidly as possible.
- Change your sport or activity to one that does not make your condition worse. (i.e. temporarily change from running to cycling or swimming)

When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your activity is determined by how soon your IT Band tendon area recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better. You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion and strength in the injured leg compared to the uninjured leg.
- You can jog straight ahead then sprint without pain or limping.
- You can do 45-degree, then 90-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard, then 10-yard, figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.



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How can I prevent iliotibial band syndrome?

Iliotibial band syndrome is best prevented by warming up properly and doing stretching exercises before sports or other physical activity, focusing specifically on the Iliotibial and the quadriceps. Integrating cycling into your exercise routine can also reduce occurrence.

You may do all of these exercises right away.

1. **ILIOTIBIAL BAND STRETCH (STANDING):** Cross your uninjured leg in front of your injured leg and bend down and touch your toes. You can move your hands across the floor toward the uninjured side and you will feel more stretch on the outside of your thigh on the injured side. Hold this position for 20 seconds. Return to the starting position. Repeat 3 times.
2. **ILIOTIBIAL BAND STRETCH (SIDE-LEANING):** Stand sideways near a wall, your injured leg toward the inside. Place the hand of your injured side on the wall for support. Cross your uninjured leg over the injured leg, keeping the foot of the injured-leg stable. Lean into the wall. Hold the stretch for 20 seconds and repeat 3 times.
3. **STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep the injured leg back, the uninjured leg forward, and the heel of your injured leg on the floor. Turn your injured foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 20 seconds. Repeat 3 times. Do this exercise several times each day.
4. **HAMSTRING STRETCH ON WALL:** Lie on your back with your buttocks close to a doorway, and extend your legs straight out in front of you along the floor. Raise the injured leg and rest it against the wall next to the door frame. Your other leg should extend through the doorway. You should feel a stretch in the back of your thigh. Hold this position for 20 seconds. Repeat 3 times.
5. **QUADRICEPS STRETCH:** Stand an arm's length away from the wall, facing straight ahead. Brace yourself by keeping the hand on the uninjured side against the wall. With your other hand, grasp the ankle of the injured leg and pull your heel toward your buttocks. Don't arch or twist your back and keep your knees together. Hold this stretch for 20 seconds. Repeat 3 times.
6. **QUADRICEPS ISOMETRICS:** Sitting on the floor with your injured leg straight and your other leg bent, press the back of your knee into the floor by tightening the muscles on the top of your thigh. Hold this position 10 seconds. Relax. Do 3 sets of 10.
7. **WALL SQUAT WITH A BALL:** Stand with your back, shoulders, and head against a wall and look straight ahead. Keep your shoulders relaxed and your feet 1 foot away from the wall and a shoulder's width apart. Place a rolled up pillow or a soccer-sized ball between your thighs. Keeping your head against the wall, slowly squat while squeezing the pillow or ball at the same time. Squat down until you are almost in a sitting position. Your thighs will not yet be parallel to the floor. Hold this position for 10 seconds and then slowly slide back up the wall. Make sure you keep squeezing the pillow or ball throughout this exercise. Repeat 10 times. Build up to 3 sets of 10.
8. **HIP ADDUCTION:** Tie a loop in one end of the tubing and slip the loop around the ankle of your injured side. Make a knot in the other end of the tubing and close the knot in a door. Stand sideways to the door, with your uninjured leg away from the door. Bring your injured leg across your body sideways, crossing over your uninjured leg and stretching the tubing. Return to the starting position. Do 3 sets of 10.
9. **KNEE STABILIZATION:** Wrap a piece of elastic tubing around the ankle of your uninjured leg. Tie the tubing to a table or other fixed object.
 - a. Stand on your injured leg facing the table and bend your knee slightly, keeping *your* thigh muscles tight. While maintaining this position, move your uninjured leg straight back behind you. Do 3 sets of 10.
 - b. Turn 90° so your injured leg is closest to the table. Move your uninjured leg away from your body. Do 3 sets of 10.
 - c. Turn 90° again so *your* back is to the table. Move your uninjured leg straight out in front of you. Do 3 sets of 10.
 - d. Turn your body 90° again so your uninjured leg is closest to the table. Move your uninjured leg across your body. Do 3 sets of 10.

Hold onto a chair if you need help balancing. This exercise can be made even more challenging by standing on a pillow while you move your uninjured leg.