

# Iliotibial Band Syndrome

## What is iliotibial band syndrome?

Iliotibial band syndrome is inflammation and pain on the outer side of the knee. The iliotibial band is a layer of connective tissue. It begins at a muscle near the outer side of your hip, travels down the outer side of your thigh, crosses the outer side of the knee, and attaches 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:

- ▶ Place an ice pack over your iliotibial band for 20 to 30 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 or physical therapist.

Your provider may give you an injection of a corticosteroid medication to reduce the inflammation and pain.

While your knee is healing, you will need to change your sport or activity to one that does not make your condition worse. For example, you may need to bicycle instead of run.

## 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 sport or activity will be determined by how soon your knee 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:

- ▶ Your injured knee can be fully straightened and bent without pain.
- ▶ Your knee and leg have regained normal strength compared to the uninjured knee and leg.
- ▶ You are able to jog straight ahead without limping.
- ▶ You are able to sprint straight ahead without limping.
- ▶ You are able to do 45-degree cuts.
- ▶ You are able to do 90-degree cuts.
- ▶ You are able to do 20-yard figure-of-eight runs.
- ▶ You are able to do 10-yard figure-of-eight runs.
- ▶ You are able to jump on both legs without pain and jump on the injured leg without pain.

### 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.

## Iliotibial Band Syndrome Rehabilitation Exercises

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 15 to 30 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 15 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 15 to 30 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 15 to 30 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 15 to 30 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.

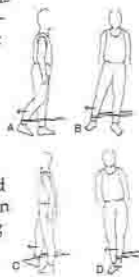
A. Stand on your injured leg facing the table and bend your knee slightly, keeping your thigh muscles tight. While maintaining this position, move your uninjured leg straight back behind you. Do 3 sets of 10.

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.



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