

COASTAL SPORTS & WELLNESS

MEDICAL CENTER

PATIENT INFORMATION

Iliotibial Band (IT Band) Syndrome is a frustrating source of knee and hip pain for athletes, and is one of the most common causes of lateral knee pain in runners.

Most injuries occur as the result of “too much, too soon” or poor biomechanics and can be prevented with these simple tips and listening to your body.

Anatomy

The iliotibial band is a thick layer of tissue along the outer part of the leg that runs from the hip to the knee. Irritation can occur either in the hip or the outside part of the knee as the iliotibial band rubs across the greater trochanter and the lateral epicondyle of the femur.

Symptoms

Pain at the outside part of the knee that is worse when bending or extending the knee, such as during running. Other symptoms include pain on the outside part of the hip over the greater trochanter.

Causes

Tightness in the iliotibial band is a common cause. Weakness in the muscles around the hip and buttocks (gluteus muscles) can cause excessive hip and leg rotation, resulting in increased stress on the iliotibial band. Other factors that can lead to IT band syndrome include running on a sloped surface such as the beach or road and excessive pronation or rolling in of the foot.

Prevention

Iliotibial band syndrome can be prevented by avoiding overtraining, allowing for adequate recovery and rest, following a regular stretching and strengthening program and selecting proper running shoes for your running style.

Treatment

Ice massage to the painful area for 10 to 15 minutes after workouts can decrease the pain. For acute injuries (less than 2 weeks) anti-inflammatory medications such as ibuprofen (Motrin or Advil) or naproxen (Aleve or Naprosyn) can help with pain and irritation. In chronic injuries there is less inflammation of the tissue, therefore acetaminophen (Tylenol) may be more appropriate.

Stretches

Stretching of the iliotibial band is an important component of proper rehabilitation if the band is tight. One simple stretch is to stand and cross your injured leg behind your uninjured leg and bend over to touch your toes. A more advanced version of this exercise is to then extend the arms overhead and slowly reach to the opposite side (for the right IT band, extend the arms to the left) and then continue the stretch as the arms reach for the floor. As you perform this exercise,



ILIOTIBIAL BAND EXERCISES

you should feel the stretch in the side and back on the hip. If you experience pain or muscle spasm then reduce the motion during the stretch.

The seated IT band stretch is performed while sitting on the floor with the legs out straight. Bending at the hip and knee, take the injured leg and cross it over the uninjured leg. Twist the upper body towards the injured side to continue the stretch. An alternative method is to slowly extend the knee and leg of the tight IT band to increase the stretch.



Seated IT band Stretch

The “Figure-4” stretch is an exercise that can be done while seated at a desk. While seated, cross the ankle of the injured leg on top of the opposite knee. The stretch can be extended by either lightly pushing the flexed knee down towards the floor or by leaning forward at the waist and allowing your body weight to increase the stretch. Hold the stretch for 5 to 10 seconds and then slowly relax.



Seated Figure-4 Stretch

Foam Roller Stretch

A foam roller is a great tool to break up scar tissue and help with myofascial release of the iliotibial band. The stretch is performed by rolling the injured leg back and forth across the foam roller. Focus on the hip and outside part of the thigh. The exercise can be done daily for several minutes.

Try the rolling with the knee straight and the knee flexed. Gradually increase the amount of time each week.



Foam Roller Technique

Strength Exercises

Strengthening the gluteus muscles is also important. Step lunges and leg squats can help increase gluteal muscle strength and are helpful for prevention of iliotibial band syndrome. For athletes that are trying to rehab from IT band syndrome, a gradual approach to strength training of the gluteal muscles is recommended.

Side Leg Lifts

Side leg lifts focus on strengthening the lateral gluteal muscles as well as teaching the athlete the correct muscles to focus on. Side leg lifts are performed lying on the side, with the injured leg on top. Keeping the hip and knee straight, slowly lift the top foot twelve to twenty-four inches directly above the bottom foot.

Hold the position for 5 to 10 seconds and slowly return the leg to the starting position. Focus on using the gluteal muscles and not the lateral thigh muscles to lift the leg. Repeat this exercise 5 to 10 times in sets of 2 or 3.

Hip Hitches (Pelvic Drop) Exercises

Hip hitches or pelvic drop exercises are another method of improving gluteal muscle strength. Stand on a step or elevated platform with the injured leg. The unaffected side should hang off the edge of the step. Slowly relax your hips and the pelvis should tilt down towards the unaffected leg as the foot lowers. Concentrate on contracting the gluteal (buttock) muscles on the standing leg and bring the hips back to a straight position.



Example of Hip Hitches working the right gluteal muscles

Wallbangers

Wallbangers help provide another method of improving gluteal muscle strength. Stand perpendicular and one to two feet away from the wall with the injured hip towards the wall. With arms extended out in front, slowly drop and twist away from the wall until the hip lightly contacts the wall. Don't hold this position - return to the starting position. As you perform this exercise, you should feel the gluteal muscles in the hip closest to the wall contract as you return to the upright position.



Example of "Wallbangers" - right hip is the injured hip. Note that there should not be hard contact with the wall

Frontal Plane Lunges

Frontal plane lunges are another simple exercise that increase gluteal muscle strength. Standing with the feet shoulder-width apart, slowly step to the right and lower the body into a squat position. Shift the body weight from the left to the right leg and rise from the squat

position as you bring the left leg back underneath your body. Repeat the exercise in the opposite direction by stepping to the left and repeating the above steps.

Sample Exercise Program

Week 1

Everyday - Stretching exercises - Once daily for total of 5 to 10 minutes in each session. Ice as needed after stretching.

Days 1, 3 and 5 - Strength exercises - start with 8 to 10 repetitions and one or two sets. Focus upon proper form.

Week 2

Everyday - Stretching exercises - Twice daily for total of 5 to 10 minutes in each session. Ice as needed after stretching.

Days 1, 2, 4 and 5 - Strength exercises - start with 10 to 12 repetitions and two to three sets. Continue to focus upon proper form.

Key Points to Remember

There are several key points to remember with iliotibial band syndrome. The focus should be on stretching of the iliotibial band and strengthening the muscles around the hip since weakness in these muscles often is the primary cause of the injury.

Limiting increases in running mileage to approximately 10% weekly can help prevent injuries from "too much, too soon". Proper stretching after warming up and before cooling down can help prevent re-injury.

Sometimes, worn running shoes with poor arch support can lead to excessive pronation of the foot and increased stress on the iliotibial band. Remember that most running shoes last for 300 to 400 miles and need to be replaced. Having an expert at a running shoe store can help in selecting the proper shoe for your foot and running style.

Don't forget the importance of recovery and moderation in an exercise program. While a little soreness is a sign that your body is adapting to the increased training, pain is your body's signal to slow down.

Return to Running

The often-asked question of most runners and endurance athletes is when they can return to running with iliotibial band problems.

A gradual return to running can begin once an athlete can perform the exercises without pain. While individual results may vary, most ITB syndrome cases resolve with 4 to 6 weeks of rehabilitation.

A return to running program should focus on proper biomechanics and avoid triggering factors (sloped or uneven surfaces). Studies have shown that faster paced running has less irritation of the iliotibial band due to the flexed position of the knee at foot strike versus slow paced jogging.

We recommend easy and short fast-paced running on alternating days on flat ground for the first week with a gradual return to longer, slower paced runs over the next 2 weeks. Additionally, avoiding downhill running or on sloped surfaces (side of the road) can help prevent re-injury.

The rehab stretches and exercises should continue during the return to running phase of the training program.

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