

# PIRIFORMIS SYNDROME

## What is piriformis syndrome?

Piriformis syndrome refers to irritation of the sciatic nerve as it passes through or next to the piriformis muscle located deep in the buttock. Inflammation of the sciatic nerve, called sciatica, causes pain in the back of the hip that can often travel down into the leg.

## How does it occur?

The piriformis muscle is located deep in the buttock and pelvis and allows you to rotate your thigh outward. The sciatic nerve travels from your back into your leg by passing through or next to the piriformis muscle. If the piriformis muscle is unusually tight or if it goes into spasm, the sciatic nerve can become inflamed or irritated. Piriformis syndrome may also be related to intense downhill running.

## What are the symptoms?

You have pain deep in your buttock that may feel like a burning pain. The pain usually travels down across your lower thigh. Your pain may increase when you move your thigh outward, such as when you are sitting cross-legged.

## How is it diagnosed?

Your healthcare provider will talk to you about when your symptoms began. Since your sciatic nerve begins in the back, it can be irritated from a back injury, such as a herniated disk. Your provider will ask if you have had any injuries to your back or hip. He or she will examine your back to see if the sciatic nerve is irritated there. He or she will examine your hip and legs and move them to see if movement causes increased pain.

Your healthcare provider may order X-rays, a computed tomography (CT) scan, or a magnetic resonance image (MRI) of your back to see if there is a back injury. There are no X-ray tests that can detect if the nerve is being irritated at the piriformis muscle.

## How is it treated?

Treatment may include:

- placing ice packs on your buttock for 20 to 30 minutes every 3 to 4 hours for the first 2 to 3 days or until the pain goes away

- resting
- taking prescribed anti-inflammatory medicines or muscle relaxants (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval)
- learning and doing stretching exercises of the piriformis muscle

## When can I return to my sport or activity?

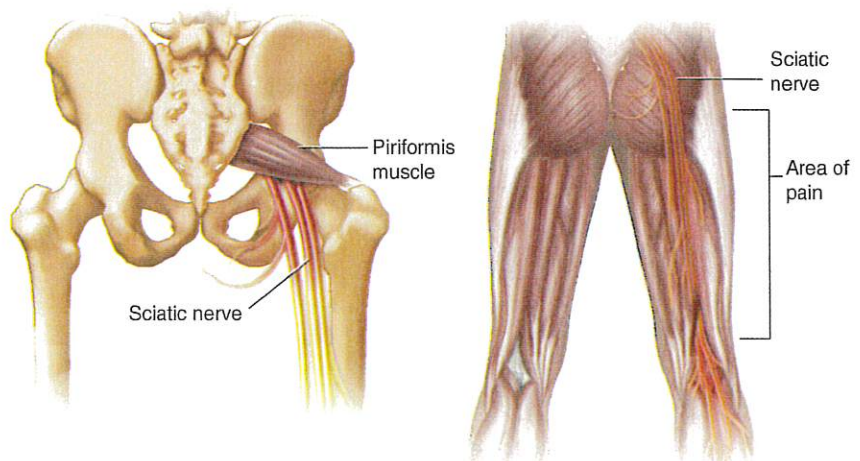
The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon the nerve 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 in the affected leg compared to the unaffected leg
- you have full strength of the affected leg compared to the unaffected leg
- you can jog straight ahead without pain or limping
- you can sprint straight ahead without pain or limping

HIP/THIGH/PELVIS

## PIRIFORMIS SYNDROME





- you can do 45-degree cuts, first at half-speed, then at full-speed
- you can do 20-yard figures-of-eight, first at half-speed, then at full-speed
- you can do 90-degree cuts, first at half-speed, then at full-speed
- you can do 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 affected leg without pain

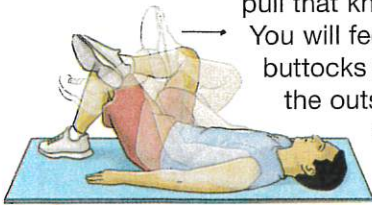
### How I prevent piriformis syndrome?

Piriformis syndrome is best prevented by stretching the muscles that rotate your thigh inward and outward. It is important to have a good warm-up before starting your sport or activity.

## PIRIFORMIS SYNDROME REHABILITATION EXERCISES

You may do all of these exercises right away.

**1. GLUTEAL STRETCH:** Lying on your back with both knees bent, rest the ankle of one leg over the knee of your other leg. Grasp the thigh of the bottom leg and pull that knee toward your chest. You will feel a stretch along the buttocks and possibly along the outside of your hip on the top leg. Hold this for 15 to 30 seconds. Repeat 3 times.



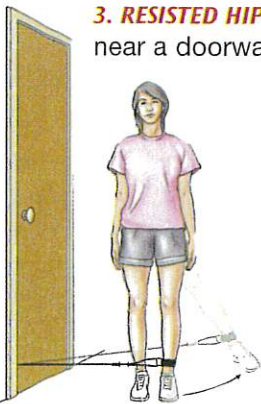
GLUTEAL STRETCH

**2. STANDING HAMSTRING STRETCH:** Place the heel of your leg on a stool about 15 inches high. Keep your knee straight. Lean forward, bending at the hips until you feel a mild stretch in the back of your thigh. Make sure you do not roll your shoulders and bend at the waist when doing this or you will stretch your lower back instead. Hold the stretch for 15 to 30 seconds. Repeat 3 times for each leg.



STANDING HAMSTRING STRETCH

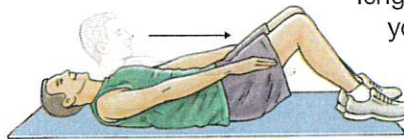
**3. RESISTED HIP ABDUCTION:** Stand sideways near a doorway. Tie elastic tubing around the ankle on your leg which is away from the door. Knot the other end of the tubing and close the knot in the door. Extend your leg out to the side, keeping your knee straight. Return to the starting position. Do 3 sets of 10.



RESISTED HIP ABDUCTION

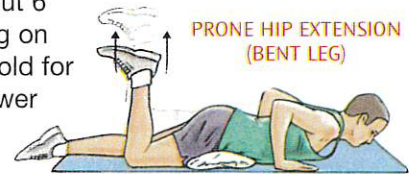
To challenge yourself, move farther away from the door.

**4. PARTIAL CURL:** Lie on your back with your knees bent and your feet flat on the floor. Tighten your stomach muscles and flatten your back against the floor. Tuck your chin to your chest. With your hands stretched out in front of you, curl your upper body forward until your shoulders clear the floor. Hold this position for 3 seconds. Don't hold your breath. It helps to breathe out as you lift your shoulders up. Relax. Repeat 10 times. Build to 3 sets of 10. To challenge yourself, clasp your hands behind your head and keep your elbows out to the side.



PARTIAL CURL

**5. PRONE HIP EXTENSION (BENT LEG):** Lie on your stomach with a pillow underneath your hips. Bend one knee, tighten up your buttocks muscles, and lift your leg off the floor about 6 inches. Keep the leg on the floor straight. Hold for 5 seconds. Then lower your leg and relax. Do 3 sets of 10.



Repeat this exercise for the other leg.

**QUADRUPED ARM/LEG RAISE:** Get down on your hands and knees. Tighten your abdominal muscles to stiffen your spine. While keeping your abdominals tight, raise one arm and the opposite leg away from you. Hold this position for 5 seconds.

Lower your arm and leg slowly and alternate sides. Do this 10 times on each side.



QUADRUPED ARM/LEG RAISE