

# Piriformis Syndrome

## What is piriformis syndrome?

Piriformis syndrome refers to irritation of the sciatic nerve as it passes through 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 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.

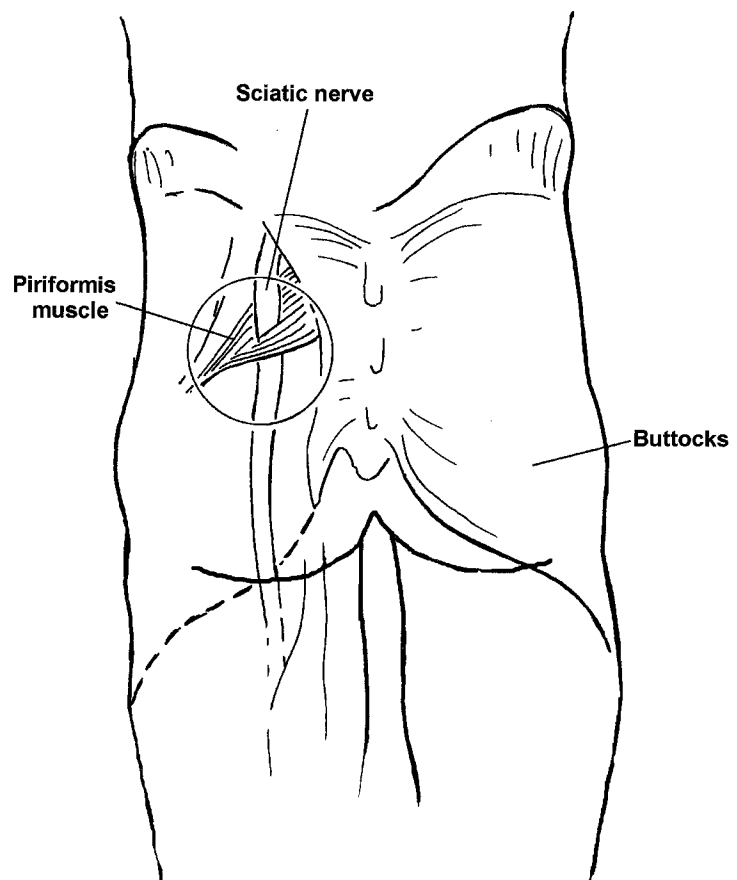
## How is it diagnosed?

Your doctor 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 doctor 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 doctor 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.

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### **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
- rest
- taking prescribed anti-inflammatory medications or muscle relaxants
- 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.

- 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.

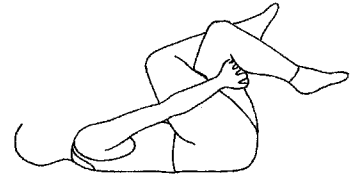
### **How I prevent piriformis syndrome?**

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.

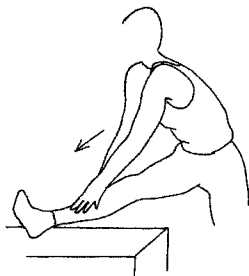
## Piriformis Syndrome Rehabilitation Exercises

You may do all of these exercises right away.

1. Piriformis stretch: Lie on your back with both knees bent and the foot on your uninjured side flat on the floor. Rest the ankle of your injured leg over the knee of your uninjured leg. Grasp the thigh of your uninjured 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 injured side. Hold this for 30 seconds. Repeat 3 times.



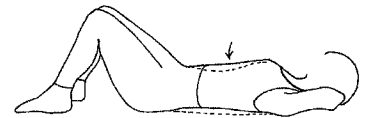
Piriformis stretch



Standing hamstring stretch

2. Standing hamstring stretch: Place the heel of your injured leg on a stool about 15 inches high. Lean forward, bending at the hips until you feel a mild stretch in the back of your thigh. Hold the stretch for 30 to 60 seconds. Repeat 3 times.

3. Pelvic tilt: Lie on your back with your knees bent and your feet flat on the floor. Tighten your abdominal muscles and flatten your spine on the floor. Hold this position for 5 seconds, then relax. Repeat 10 times. Do 3 sets.



Pelvic tilt



Partial curl

4. Partial curls: Lie on your back with your knees bent and your feet flat on the floor. Clasp your hands behind your head to support it. Keep your elbows out to the side and don't pull with your hands. Slowly raise your shoulders and head off the floor by tightening your abdominal muscles. Hold this position for 3 seconds. Return to the starting position. Repeat 10 times. Build up to 3 sets.
5. Prone hip extension: Lie on your stomach. Tighten up your buttocks muscles and lift your right leg off the floor about 8 inches. Keep your knee straight. Hold for 5 seconds and return to the starting position. Repeat 10 times. Do 3 sets on each side.



Prone hip extension