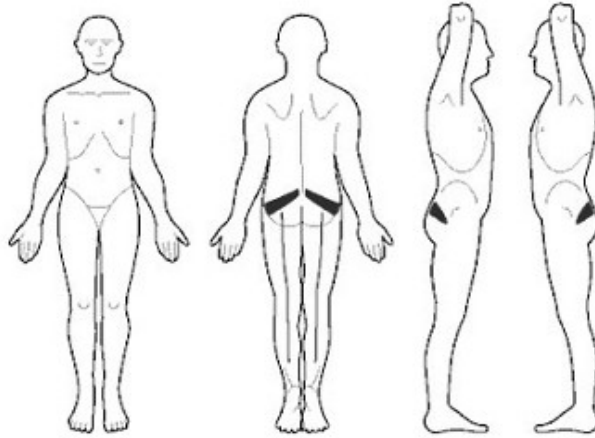


Piriformis ("peer-i-form-iss") Syndrome

The piriformis muscle is a small, but strong, pear-shaped ("piri-form") muscle running from the spine, inside the pelvis, out to the leg bone. The sciatic ("sigh-attic") nerve is a large (thumb-sized) nerve that runs from the spinal cord inside the pelvis, out to the leg, and provides sensation and muscular power down the whole leg. Sometimes the piriformis muscle can spasm and become inflamed. It can irritate the sciatic nerve which is just beneath it. This causes back, hip, and leg irritation and discomfort.



location of piriformis muscle

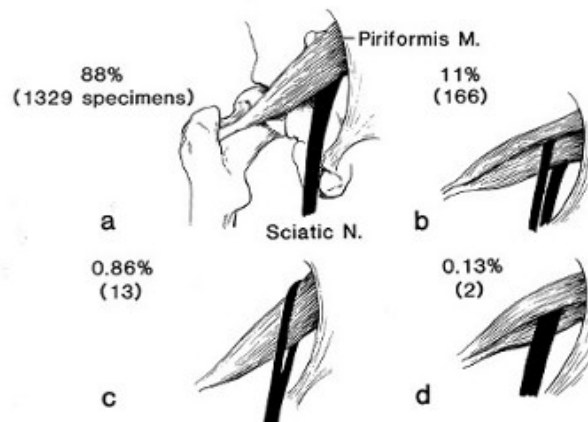
Its main job is to turn the hip joint outward, but it only does this when you're standing up (not bent at the hips). If you normally walk with your toes pointed out, your piriformis muscles are more shortened.

When your hips are flexed (bent), then piriformis is also used to move the leg outwards, away from your midline. You would be using piriformis when you move your leg across to get out of a car, or when you scoot across to another seat on the couch without standing up.

The piriformis muscle is also very important for stabilizing the hip joint and the pelvis, so you use it when you are standing on one leg, turning your trunk, or keeping your balance on a moving train or standing in a boat.

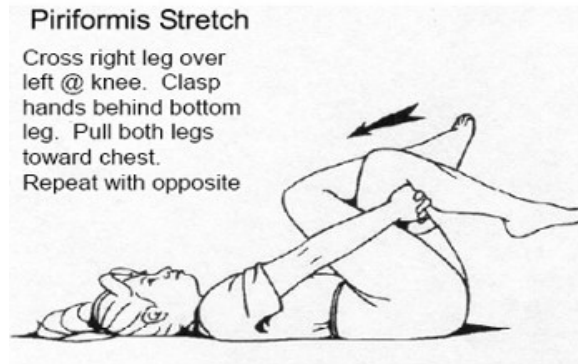
Piriformis syndrome can be worse if your anatomy is such that the sciatic nerve is pinched somehow by the piriformis muscle, instead of just passing underneath it. This is thought to occur in about 12% of people:

Relation of Sciatic Nerve to Piriformis Muscle In 1510 Extremities Studied



...However, injuries from falling, overuse (running, ballet), and repetitive motion (desk jobs) can cause the problem the other 88% of people, too. Sometimes people with piriformis-related pain (piriformis syndrome) are mis-diagnosed as having sciatica caused by a spinal disc problem, but spinal surgery does not help.

Most piriformis self-treatment involves some form of this basic piriformis stretch:



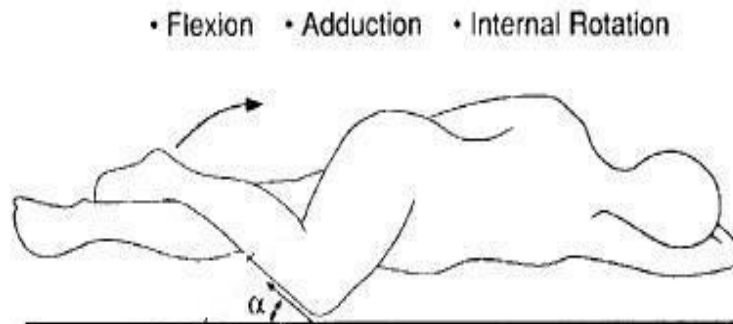
If you have piriformis syndrome, you will need to get that tight muscle stretched out again so it stops spasming and irritating the sciatic nerve and other nerves nearby. Then you will need to work on a program of strengthening the muscle to prevent recurrence. It helps to watch videos that show how to do the proper exercises.

Two exercises to reduce piriformis syndrome: <http://www.youtube.com/watch?v=2-pDoR5fWII&feature=related>

The other main therapy will be massage, which is good for any spasming muscle. Myofascial release ("my-oh-fash-al release") techniques break up fine bands of scar tissue with massage. Here is a video about self-myofascial release (that you can do at home) for piriformis syndrome: <http://www.youtube.com/watch?v=N9Qw4aAFdbc&feature=related>

Here is a program of home massage therapy:

1. Lie down on the side opposite the side being treated (the treat the left side, lie down on your right side).



2. Bend your hips and knees (curl up slightly). Cross your top leg over your bottom leg (if you can tuck your top foot under your bottom leg, it helps). Do not shift to slightly face-down, which opens the legs and reduces the stretch.

3. In this position, put a hot pack over the piriformis for 5-10 minutes (microwaved rice bag, heating pad with large beanbag over it, hot wet towel with a blanket over it, etc).

4. For 10-15 minutes, have someone stretch the piriformis muscle* by applying steady pressure (using fist, elbow, or tennis ball) against the top buttock, directed toward the bottom shoulder (not directed toward the floor). They should back off, if it is painful. They should not knead or massage the muscle, which could increase swelling.

*The piriformis muscle is just above, and parallel to, a line running from the sit-bone to the hip-bone.

5. Repeat on the other side.

6. Duration: three times a week for 2-3 months.

If home treatment is not working, I suggest you seek professional help from a massage therapist or sport physical therapist. People with longstanding piriformis syndrome often have associated problems with the nerves and muscles of the pelvis and leg bone. You might need additional treatments, shoe orthotics, etc.

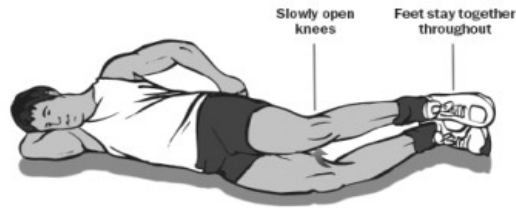
Once the muscle spasm improves, you will need to strengthen the muscles in that region. Here are some exercises that you should start doing three times a week for 6 months:

Stretching and strengthening

Stretching and strengthening are the keys to preventing piriformis syndrome. The following exercises are specific to the piriformis and are easily incorporated into a core-strengthening program for the pelvic girdle.



Piriformis stretch: Lying on your back, bend one knee and place that foot on the floor. Cross the other leg over the bent knee at the ankle. Bring the knee of the crossed leg toward the opposite shoulder. For a deeper stretch, cross the knees closer together. Hold for a slow count of 20. Repeat on other leg.



Clam exercise: Lying on your side, bend your hips and knees to about 60° of flexion. Rotate your top hip forward slightly ahead of the lower hip. Maintain the hips in this position throughout the exercise. With feet together, slowly open knees, keeping kneecap facing forward. Hold for a count of 3 then return to starting position. Perform 10 on each side.



Hydrant exercise: On all fours, lift knee until thigh is parallel to the ground. Hold for a count of three. Return to starting position and repeat 10 times on each side.

See also:

<http://saveyourself.ca/articles/mobilizing.php>
active stretches and rhythmical movements that massage your tissues with movement

http://www.youtube.com/watch?v=Dhpw_0QpBEc&feature=related
how to use an exercise ball

<http://www.youtube.com/watch?v=wBOP-ugJbTQ>
mckenzie exercise for sciatica

<http://www.youtube.com/watch?v=zRXGDP7A2IU&feature=channel>
how to stand up straight