The **piriformis muscle** is a deep muscle located beneath the gluteal (butt) muscles. The piriformis muscle laterally rotates and stabilizes the hip. This muscle is important for athletes who participate in running sports that require sudden changes of direction. The piriformis works along with other hip rotators to turn the hips and upper leg outward (external rotation of the hip). Strong and flexible hip rotators keep hip and knee joints properly aligned during activity and help prevent sudden twisting of the knee during quick side-to-side movements, quick turns, lunges or squats.

A condition called "piriformis syndrome," which causes pain deep in the hip and buttock, is believed to be caused when the piriformis muscle compresses the sciatic nerve. Stretching and strengthening a tight or weak piriformis muscle has been found to reduce or alleviate this pain in some athletes.

Stretching the piriformis muscle is almost always necessary to relieve the pain along the sciatic nerve and can be done in several different positions. A number of stretching exercises for the piriformis muscle, hamstring muscles and hip extensor muscles may be used to help decrease the painful symptoms along the sciatic nerve and return the patient’s range of motion.

Several of the stretching exercises commonly prescribed to treat **sciatica symptoms** from piriformis muscle problems include:

**Supine piriformis stretches**

- Lie on the back with the legs flat. Pull the affected leg up toward the chest, holding the knee with the hand on the same side of the body and grasping the ankle with the other hand. Trying to lead with the ankle, pull the knee towards the opposite ankle until stretch is felt. Do not force ankle or knee beyond stretch. Hold stretch for 30 seconds, then slowly return to starting position. Aim to complete a set of three stretches.
• Lie on the floor with the legs flat. Raise the affected leg and place that foot on the floor outside the opposite knee. Pull the knee of the bent leg directly across the midline of the body using the opposite hand or a towel, if needed, until stretch is felt. Do not force knee beyond stretch or to the floor. Hold stretch for 30 seconds, then slowly return to starting position. Aim to complete a set of three stretches.

**Practical point:** Stretching the piriformis muscle a few times a day, especially when combined with hamstring stretches, will prevent tightening of the lower back and relieve tension from hip to foot.

• Lie on the floor with the affected leg crossed over the other leg at the knees and both legs bent. Gently pull the lower knee up towards the shoulder on the same side of the body until stretch is felt. Hold stretch for 30 seconds, then slowly return to starting position. Aim to complete a set of three stretches.

**Buttocks stretch for the piriformis muscle**

• Begin on all fours. Place the affected foot across and underneath the trunk of the body so that the affected knee is outside the trunk. Extend the non-affected leg straight back behind the trunk and keep the pelvis straight. Keeping the affected leg in place, scoot the hips backwards towards the floor and lean forward on the forearms until deep stretch is felt. Do not force body to floor. Hold stretch for 30 seconds, then slowly return to starting position. Aim to complete a set of three stretches.
Simple Piriformis Muscle Stretch Options

- **Sitting Cross-Legged.** One of the easiest ways to keep your hips open and stretch your piriformis muscle is by sitting cross-legged on the floor for several minutes a day.
- **Piriformis Chair Stretch.** Another easy way to stretch out the piriformis, especially if you have a desk job, is to cross one leg over the other with your ankle resting on the knee of the opposite leg. Gently press down on the inside of the knee and slowly lean forward until you feel a mild stretch in the hips.
- **Lying Piriformis Stretch.** A more intense stretch can be performed while lying on your back on the floor. Cross the left leg over the right, with the left ankle resting on the right knee. Slowly lift the right foot off the floor and toward you while you apply gentle pressure to the inside of the left knee. Hold 20 to 30 seconds, and repeat on the other side.

Advanced Piriformis Stretch - Pigeon Pose

This stretch, pictured above, is a more advanced piriformis and hip stretch, in which you use your whole body weight to stretch the piriformis, the IT band and other hip rotators. Use caution as you get in to and out of this pose.

- Start in a push-up position on your hand and toes.
- Slide your right knee forward toward your right hand. Angle your knee, so the outer ankle is touching the floor (see picture).
- Slide your left leg back as far as comfortable.
- Keep your hips square to the floor.
- You should feel a deep stretch in your right glutes (buttock), hip and the outer thigh.
- You can either stay up on your hands or fold forward and let your forearms rest on the floor in front of you or fully extend your arm in front of you.
- Breathe slowly and deeply from your belly. Hold the stretch 30 seconds to 60 seconds and release. Repeat on the other leg.