# **Piriformis Syndrome**

Piriformis syndrome is a relatively uncommon neuromuscular disorder caused whenever the piriformis muscle causes the sciatic nerve to become compressed. The muscle is a pear-shaped muscle located near the top part of the hip joint in the buttocks. Piriformis literally means "pear-shaped muscle" and it is located in the middle of the buttock. It is an important component to lower body movement because it helps to stabilize the hip joint and rotates and lifts the thigh away from the body. It allows you to walk, maintain balance and shift weight from one leg to another. The muscle tends to be used quite frequently in sporting activities involving rotating and lifting the thighs. Essentially, the muscle is used for almost every movement involving the legs and hips.

The sciatic nerve is a long, thick nerve in your body. It passes along the piriformis muscle, runs down the back of the leg and branches off into the smaller nerves ending in the feet. Compression of the nerves might be caused from spasms in the piriformis muscle.

Whenever you suffer with back pain, there is a chance that the piriformis can go into spasm. The buttock muscles tighten up, and this can cause referred pain into the back of the leg and down to the foot. However, sometimes there is a genetic variation with the muscle and the sciatic nerve whereby the nerve actually pierces through the muscle, and this is thought to occur in 7% of the population and makes piriformis syndrome more likely. However, there is no way to accurately determine if this is the case in any particular patient.

Piriformis syndrome is difficult to diagnose, and most commonly is diagnosed by case history by a doctor or therapist. Sometimes it is diagnosed after other more common causes of sciatica are ruled out, such as a disc prolapse (slipped disc). MRI scans do not tend to show piriformis syndrome, but they do show trapped nerves in the spine which may actually be causing the sciatica.

#### **How to Treat Piriformis Syndrome:**

#### 1. Rest

Avoid those activities causing pain, whether that be sitting or actually moving around and doing something. Find a position that doesn't cause a lot of pain.

Apply ice to the affected area for 5-10 minutes at a time three to five times per day. Make sure to wrap the ice in a thin towel to avoid an ice burn on the skin. Ice helps to alleviate inflammation and pain in the affected area.

### 3. Physical Therapy

The therapist might recommend that you go through a program of stretches and exercises to help reduce the compression on the sciatic nerve. As the compression levels decline, the pain in the area will begin to decline. Physical therapy is probably the most effective way to treat the

Your therapist will massage into the piriformis muscle using their fingers or commonly an elbow. If this replicates pain into the back of your leg, it is possible that you do actually have this condition.





#### 4. Acupuncture

Acupuncture using a long needle into the belly of the piriformis can reduce sciatic pain and muscle spasm. It can be remarkably successful in stubborn cases of piriformis syndrome.

## 5. Injections

Cortico-steroid injections around the buttock may help reduce inflammation. Some people have also tried Botox injections to decrease pain.

### Tips:

- Before participating in any sporting activities, make sure you are properly warmed up.
- Avoid running on any uneven surfaces or exercising on a hill unless you are more experienced.
- Increase intensity slowly when participating in any exercise routine.
- When exercising, running or walking, always use proper posture. If you are not sure, discuss with a sports coach.
- If you notice pain when performing an activity, stop doing the activity until you notice the pain is no longer present in the affected area.
- See a therapist and ask them to deeply massage the buttock. If you have piriformis syndrome you will often notice quite a significant improvement in symptoms.