

Piriformis Syndrome Summary Treatment Sheet

Pathology: The Piriformis muscle originates at the anterior sacrum comes out at the greater sciatic notch and inserts into the greater trochanter of the femur. The muscle runs at a 60 degree angle. It is similar to the subscapularis muscle of the shoulder. It is a part of the six deep lateral rotators of the hip. It is only palpable just posterior to the greater trochanter. When it gets tight it can constrict and compress the sciatic nerve resulting in posterior thigh pain and parasthesia (pins and needles.) Sometimes mistaken for a herniated disc.

History: This is a muscle condition so it is primarily from overuse or from sitting or applying direct pressure for extended periods of time. It can also be from poor body mechanics or postural distortions and gait problems.

Assessment: The main action of this muscle is external/lateral rotation. It can assist in extension of the hip and depending on where the femur is it can also do abduction and adduction. It is also important to note that after 60 degrees of hip flexion the piriformis internally rotates. Two types of pain will accompany this condition.

- 1.) Trigger point pain pattern from buttocks to calcaneus over all soft tissue areas except over the joints. Dull, Deep, Diffuse and Achy
- 2.) Parasthesia – Pins and Needles from nerve entrapment.

*ROM test will result in less passive internal rotation on the affected side

Bolstering/: Ensure all muscles are relaxed during treatment
Comfort

Heat/Cold: Ice at attachments but use heat liberally on the muscle to make more pliable.

Therapy

General: Warm up entire hip and leg with effleurage and petrissage
Massage

Specific: Transverse friction along attachments, deep petrissage the entire gluteal region, and cross fiber techniques along the edges of the muscle which is palpable if hyper-tonic. Thumb and finger pressure and compression. Pin and stretch the entire network.

Evaluate/: Treat trigger points along the entire posterior hip, thigh, and leg.
Treat TrPs

- Stretching:** Internal/Medial rotation when hip is in extension, start prone with knee bent back bring lower leg out laterally so the front of the femur rotates inwards. To further stretch, in the supine position, put hip into flexion past 60 degrees pull knee to opposite shoulder (external rotation) and apply pressure on the femur. Cross the ankle over opposite knee and pull in towards chest during trunk flexion.
- Strengthening:** This muscle needs to be strengthened after the pain or shortening in the muscle has subsided. It is important to strengthen both sides of the hip girdle for balance.
- Stress Reduction:** Stop the offending activity and stretch the muscle often.
- Patient Education:** Evaluate postural distortions. Self treatment including heating the muscle, using foam roller or tennis ball to loosen fascia and release muscle tightness, and teach proper stretching techniques.
- Ergonomic Factors:** Look into proper desk chair and support when sitting for prolonged periods of time.
- Medical Referral:** Make sure that you co-treat with a doctor and get medical approval. Other more serious conditions may be overlooked such as herniated disc.