## INNER CIRCLE INSIGHTS

## Sciatic; It's Many Causes and Manual Therapy and It's Application

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Sciatica is commonly caused by compression of the sciatic nerve. As you know, compression of the nerve can be caused by several conditions including disc bulging or herniation, spinal stenosis, degenerative disc disease, spondylolisthesis, sacroilliac dysfunction, and piriformis syndrome. Sciatica can be described as a dull, sharp, or burning pain beginning in the buttock and extending into the back or side of the thigh. The pain may also extend below the knee, into the foot, and be accompanied by numbness and tingling.

Several months ago, I was referred a 38-year-old woman suffering from a long history of intermittent sciatic and lumbar pain. She was a homemaker and mother of 3 young children. She reported having lumbar pain and stiffness "off and on" for around 10 years. Recently the patient experienced an exacerbation of lumbar pain that extended into her right buttock and down into her right lateral thigh, along with intermittent numbness and tingling. Sciatica Pain

Upon evaluation, the patient presented with decreased lumbar and right hip range of motion and strength. She complained of

pain upon palpation throughout bilateral lumbar paraspinals, quadratus lumborum, and the right gluteal/piriformis area. The most interesting information from the evaluation was the patient's posture. The patient presented with a very common postural analysis for people complaining of lumbar and/or leg symptoms. Her right iliac was elevated, upslipped, out-flared and rotated anteriorly in comparison to her left. In standing, she also presented with her right lower extremity externally rotated with slight knee flexion. As I look at this patient more globally, I don't see sciatica, I see an asymmetrical pelvis with significant compression throughout her entire right lower quadrant with many compensatory postural changes throughout the entire body. Her lumbar paraspinals, psoas and quadratus lumborum are shortened and tender elevating and anteriorly rotating her right iliac. Her quadriceps are tight secondary to the anterior rotation. Moreover, her psoas is in spasm, pulling her lumbar region into an increased lordosis. This results in a functionally shorter right lower extremity and causes the patient to stand in right hip external rotation. This shortening of the piriformis and gluteal muscles causes impingement of her sciatic nerve.

With all of these conditions feeding into each other, it's no surprise that she has low back and leg pain. Her sciatic nerve can be compressed anywhere along the lumbar or gluteal region by compressed lumbar joints, a bulging/herniated disc, and/or tight musculature and fascia.

As a traditional physical therapist, I can heat, ultrasound, and stretch he lumbar or piriformis muscles and then add strengthening exercises. This may provide temporary relief, but it will not solve the problem. It is the soft tissues actions and reactions throughout the entire area that needs to be addressed.

In order to treat this patient effectively, long term, I must change their hip/elevation and up-slip and the tissues that have caused them. This was accomplished by performing myofascial release throughout the lumbar and pelvic floor



musculature. Further cross-hand manual therapy of the fascia was performed to lower the right iliac into a more correct posture. I also performed leg-pulls to allow a more global release of all the soft tissue throughout the right lower quadrant and decrease compression. Cross-hand fascial releases were performed throughout the hip flexors, along with deep pressure and stretching of her right quadriceps to decrease her anterior rotation. To address the external rotation of the hip, I performed myofascial releases into hip internal rotation, released the gluteal and piriformis musculature and performed leg-pulls into

hip internal rotation. Strengthening and flexibility training were also used to treat the imbalances during and after treatment for long-term change.

The result was relief from right leg and lumbar pain and parastheshias along with, increased lumbar and hip range of motion. Posturally; the patient presented with a decreased lumbar lordosis, decreased external rotation at the right hip a more symmetrical pelvis. Overall, the patients right lower quadrant was more flexible, less compressed and at ease while in standing and sitting. This was accomplished by addressing the entire lower right quadrant with manual techniques aimed at releasing deep and superficial structures. If some of these structures were not released, the result would be reoccurrence of pain, parasthshias and dysfunction.

At Inner Circle we provide everything traditional therapists provide and a unique treatment and perspective during evaluation that few provide. As always I hope that this was helpful in allowing you to understand the scope of services that we provide. I am always available for questions or to demonstrate treatment techniques and as always thank you for your time and support.

Professionally yours, James P. Mulholland, MSPT

For an appointment please call (215) 860-3623

"The Natural Force Within Each of Us is the Greatest Healer of Disease" – Hippocrates