



Piriformis Syndrome: Myth, Misdiagnosis or Just Rare? By Dr. Marc Heller

10 Causes of Sciatica and Gluteal Pain, Part 2

As introduced in [part 1](#) of this article [Aug. 1 DC], there are numerous potential causes of sciatica or buttock pain. In part 1, I presented the first six; now let's explore four more sources of pain including the hip joint itself; the oversensitized sciatic nerve as a treatable entity; how core stability affects these patterns; and fascial restrictions affecting the lumbar and pelvic region.

The essence of my message is simple: When the patient has buttock pain, do not assume that the nerve root or the piriformis muscle is the primary cause. Search for and treat the possible contributors.

7. The Hip Joint

The seventh cause of buttock pain is the hip joint itself. Let's explore two possibilities here. First, think of the hip when it [cannot internally rotate](#); the piriformis will be short. Examination includes range of motion of the hip, palpation for tenderness and anterior positioning of the head of femur, and weakness of the hip flexors (tested above 70 degrees of flexion).

When the hip starts getting dysfunctional, both flexion and internal rotation begin to be lost in the capsular pattern. Check the normal side as well; you need to compare. The individual's normal, based on looking at the more normal hip, may be more or less than the average. In an older male, one may accept 20 degrees as normal; in a younger female, the normal could be as much as 50 degrees.



As the hip begins to "fall" out of its optimal positioning, the head of the femur becomes both tender and more obviously prominent. Palpate the head of the femur by first finding the midpoint on a line between the ASIS and the pubic symphysis, and then go about 1 cm inferior.



The third finding is weakness of the hip flexors that can act above 70 degrees of flexion, the psoas and iliacus. Both of these muscles originate high enough to have leverage to lift the femur above 70 degrees. When two of three of these indicators are positive, you need to mobilize the hip into internal rotation.

You might be thinking, "Do I finally get to treat the tight piriformis?" Beating on the piriformis rarely solves this form of hip dysfunction. Address the other key muscles, including the adductors and the psoas, and use the wishbone maneuver to normalize hip joint motion. The theory here is that the hip is not well-seated in the acetabulum, and gets stuck at the lateral-inferior margin of the acetabulum.

Now think of what happens with the classic figure-4-style piriformis stretch. Think of what happens when the patient tries to sit yoga-style. Both of these are taking the hip to end-range external rotation and levering the hip further out of the joint. For the hip that cannot internally rotate, tell the patient to stop taking the hip to end-range external rotation, at least until the anterior ligaments get a chance to heal.

Note: This restriction creates psoas and iliacus weakness, and restrictions in those muscles. Treat the psoas, and retrain it for strength and endurance. Lucy Whyte Ferguson,² who introduced this concept of hip joint dysfunction to me, said that the piriformis is a significant muscular contributor to this hip pattern in only 30-40 percent of these cases. After many years, I still agree with her.

The second hip-joint issue is when the hip cannot externally rotate. Address the adductors and use contract-relax to release the hip outward. Look at the pubic symphysis and obturator foramen.

8. Nerves, Including the Sciatic

Address the nerves, specifically the sciatic nerve. The sciatic nerve obviously gets irritated in true nerve-root sciatica. All the conditions mentioned, even though they don't directly involve the nerve root, can affect the upper part of the [sciatic nerve](#). Any nerve that gets irritated becomes its own irritable focus. What I mean here is that if the nerve gets irritated, even if you remove the upstream contributors, the nerve may still be an unhappy pain source. The body's habits die hard. Any pain reinforces itself.

Nerve pain can be very difficult pain. Medically, it is treated with drugs such as Lyrica and gabapentin. These can down-regulate the nerves and certainly can help symptomatically, but may have intolerable side effects.

There is a whole industry of alternative care for neuropathy, but very little literature says that what we do will be effective. I am not saying don't attempt to treat the nerve with alternative methods; I am saying I suspect our results will be inconsistent here, and I am hesitant to promise results to my suffering patient.

The quandary is that being skeptical of your own protocols tends to decrease your placebo effect. True believers have an advantage here. My rap: I tell the patient that we have various tools for



nerve pain, and that I have seen them work many times. I remind the patient that our realistic goal is not to completely eliminate the pain, but to "turn the dial down." I have found this more-achievable goal to be helpful to patients in reframing the problem, and in helping them become less dependent on medication.

Evaluation includes subtle signs of nerve tension, as well as direct palpation of the nerve itself. One good palpation location is just distal to the sciatic notch. An irritated nerve and nerve sheath will feel a bit boggy and will be tender. Be gentle in this palpation. Nerves flare up easily. Treat the nerve and its fascial sheath.

Laser may be useful here. My electric stimulation tool is sometimes effective as well. And I can teach the patient nerve gliding. I also have recently started using elastic therapeutic tape, applied with minimal tension, along the course of the nerve. This treatment approach is not written up in the literature, but sometimes works quite dramatically. It might work via presynaptic inhibition.

I can release the nerve sheath itself manually with Barral's gentle version of manual therapy³ to the peripheral nerves. Barral's model points out that the perineurium, the lining of the nerve, is made of connective tissue – mesenchymal tissue. Manual therapy is the treatment of choice for connective-tissue restrictions.

My only hesitancy in telling you that you can release the nerve sheath manually is that most of you will press way too hard, too fast, too deeply. Nerves are not trigger points. Deep pressure will irritate them. I wish I could put you in a room with Jean-Pierre Barral so you could feel how gentle his touch is on the nerve sheath. Use feather-weight pressure and glide along the course of the nerve. You may occasionally release the nerve with a variation on cross friction, working across the nerve, but do so very gently.

9. Core Instability

Consider the whole pattern of core instability. In any buttock pain, the glutes will get inhibited and often will atrophy. Think of Janda's [lower-crossed syndrome](#). The hip flexors and lumbar erectors are tight and short; the glutes are inhibited. Once the patient has established these bad habits, they are challenging to change. I won't attempt to teach rehab in this article, but there are many functional tests for core instability. Your basic rehab is critical to stabilizing any pelvic-related pain.

10. Fascial Restrictions

Last, but not least: fascial restrictions, either of the deep hip rotators or other fascial restrictions affecting the whole chain. Classic piriformis syndrome, whereby the nerve is irritated as it bisects the piriformis, is rare. But if you look at the whole group of muscles here, including the piriformis, both obturators, both gemelli, and the quadratus femoris, fascial problems are common.

Remember that the body does not think in terms of muscles, but in terms of movements. I would use palpation as my exam here, looking for tenderness and tissue texture changes.



In the Stecco [fascial manipulation](#) model⁴ and the trigger-point model, the practitioner looks at fascial restrictions as they affect the movement and function of the whole region. In the fascial manipulation model, the point ER-CX (external rotation sequence, at the hip level) is placed directly in the middle of the piriformis. If that point is hot, you would explore, at minimum, all along the ER sequence from the lumbar spine down to the foot, and you would evaluate the points in the opposite sequence, the internal rotation sequence.

From a more generic fascial point of view, the whole buttock area, the posterior side of the greater trochanter, and above and below are significant places to search for tender fascial points and release them. I often find involvement of the quadratus femoris and test it in side-lying position by palpating its origin at the lateral margin of the ischial tuberosity.

I have given you 10 different possible sources of buttock pain beyond the overdiagnosed piriformis syndrome, ideas about what to examine and treat, and some of the exam findings. My typical approach is to examine and then do a short course of treatment. The goal is both decreased pain and decreased physical signs on re-exam. I often find that the patient initially has several of these dysfunctions. Thus, it is not surprising that they have failed previous care. I hope these articles help you become better prepared to solve sciatica and buttock pain by getting to the underlying issues.

References

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