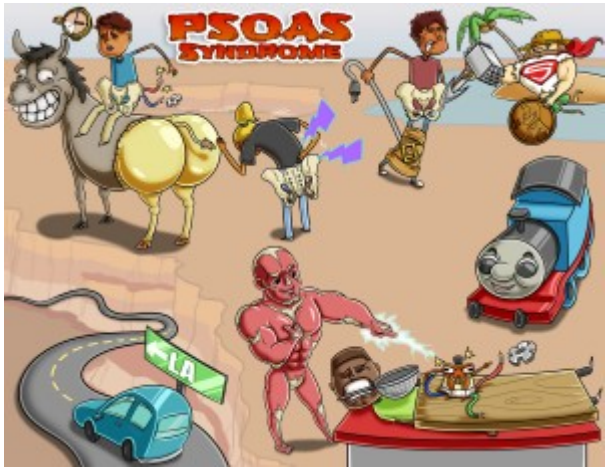
Psoas Syndrome

Psoas Syndrome is a result of a contracture of the iliopsoas muscle due to actions that cause hip flexion, such as prolonged sitting or leaning bent over for extended periods of time. A patient may also develop psoas syndrome from organic causes such as appendicitis and cholelithiasis. The patient will ultimately develop pain when walking or standing upright. The psoas tender point can be located just medial to the ipsilateral ASIS. A physician can diagnose a hypertonic iliopsoas muscle by the Thomas test. For example, if a physician flexes a patient's right leg and if the left leg raises off of the table, then there is a hypertonic left iliopsoas muscle. Somatic dysfunctions include a Type II non-neutral dysfunction to the upper lumbar segments around L1, or L2, with the vertebral body side bending and rotating toward the hypertonic psoas muscle. The lower lumbar segments will follow a Type I neutral dysfunction with side bending towards and rotating away from the side of the hypertonic psoas muscle. The pelvis will shift to the contralateral side, resulting in a sacral torsion with the axis on the same side of the hypertonic psoas muscle, as well as piriformis syndrome and sciatica of the opposite leg. The treatment involves freeing the lumbar dysfunctions and restoring the lumbar lordotic curve. Once addressing the lumbar dysfunction, a physician may treat the hypertonic psoas with counterstrain or muscle energy to free restrictions and alleviate pain.



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Prolonged Sitting

Prolonged Sitting

Psoas Syndrome is a result of any action that shortens the iliopsoas muscle and causes a decrease in the normal lumbar lordotic curvature. This is most often due to prolonged sitting or hunching over for an extended period of time but can also be due to organic causes like appendicitis, ureter dysfunctions, or cholelithiasis.

Pelvic Dysfunction

Pelvis Dysfunctioning

Psoas syndrome can provoke multiple different dysfunctions to the surrounding structures. A unilateral psoas syndrome will elicit a sacral torsion with the engagement of the sacral axis on the side of the psoas spasm. Also, the pelvis will shift to the contralateral side. In addition, they can develop piriformis syndrome with sciatic pain to the contralateral side.

Symptoms

Low Back Pain

Low Back Pain-bolt

Low back pain can result due to a hypertonic psoas muscle. Patient's typically develop a non-neutral somatic dysfunction at L1, or L2 with these segments being side bent and rotated toward the side of the dysfunctional psoas muscle. The lower lumbars segments at L3-L5 will typically be sidebent toward and rotated away from the side of the dysfunctional psoas muscle.

Difficulty Standing Upright

Difficulty Standing Upright

The Psoas muscles are the dominant hip flexors. A hypertonic psoas muscle will cause a decrease in lumbar extension and a loss of the lordotic curve resulting in the patient standing bent over. Thus, they will have difficulty standing upright.

Pelvic Pain

Pelvis Pain-bolt

A patient can develop pelvic pain due to a hypertonic psoas. The patient will side bend toward the psoas dysfunction resulting in a pelvic shift to the contralateral side and pain to the surrounding structures.

Diagnosis

Restricted Hip Extension

Restricted-belt Hip Extension-cord

A patient may have a restriction in hip extension due to hypertonic psoas muscles. As the dominant hip flexors, a psoas dysfunction will result in decreased lumbar lordosis, decreased hip extension, with the patient bent forward.

Tender Point One Centimeter Medial to ASIS

Tenderizer Point (1) Cent Metal to Super Island-bum on Spine Above

The tender point for the Psoas muscle is located just 1 centimeter medial to the ipsilateral ASIS. By applying gentle pressure over the tender point, the physician will compare it to the same spot on the opposite side in order to determine its clinical significance.

Positive Thomas Test

Positive Thomas

A hypertonic iliopsoas muscle can be diagnosed with the Thomas test. First, the patient will be positioned supine. Then, the physician will flex the patient's hip and bring one knee to the patient's abdomen while keeping the other knee straight on the table. A positive test will result if the patient's straight leg raises off of the table. In other words, if the physician flexes a patient's right leg and the left leg raises off of the table, then there is a hypertonic left iliopsoas muscle.

Interventions

Treat Lumbar Spine Somatic Dysfunction

Treat Lumber Sumo-tick Dysfunctions

The primary goal in treating psoas syndrome is to free the lumbar spinal dysfunction and re-establish lumbar lordosis. A patient may develop a non-neutral dysfunction at L1, or L2, with side-bending and rotation toward the side of the psoas dysfunction. The lower lumbar segments may be side bent toward and rotated away from the psoas dysfunction. Once the physician frees the dysfunctions, they can then move on to treating the psoas muscle with a variety of techniques including muscle energy and counterstrain.

Counterstrain

Counter-strainer

Using counterstrain, the physician will palpate the tender point just medial to the patient's ipsilateral ASIS. They will then position the patient in knee flexion and hip flexion to the level of the lumbar dysfunction. They will then side bend the leg toward and externally rotate away from the tender point to a level of comfort of 3/10 or less. After holding for 90 seconds, the physician will then passively return the patient to a neutral position and recheck their findings.

Muscle Energy

Muscle-man Energy

To perform muscle energy, the patient will lay supine at the end of a table with both of their legs hanging off the side. The physician will approach the patient on the side opposite to the hypertonic psoas and will flex the patient's leg opposite to the restriction, resting it on their own chest. The physician will then place their hand on the patient's thigh slightly above the knee on the side of the hypertonic psoas and will extend the hip by applying downward pressure until they engage a restrictive barrier. Next, the physician will instruct the patient to push their knee up toward the ceiling while providing an isometric contraction of equal counterforce for about 3-5 seconds. Subsequently, both the patient and physical will synchronously relax. The physician will then extend the ipsilateral hip to a new restrictive barrier and repeat the isometric contraction for 3-5 cycles until no further extension motion is elicited. Lastly, the physician will return the patient to a neutral position and recheck their findings.

High-Velocity, Low-Amplitude Thrust (HVLA)

High-Velocity Highway in LA

High-Velocity, Low-Amplitude Thrust (HVLA) can be used in combination to treat the non-neutral somatic dysfunction at the upper lumbar segments. Freeing these dysfunctions will help to reestablish lumbar lordosis.