

QUADRATUS LUMBORUM SYNDROME

The quadratus lumborum muscle (in combination with the iliocostalis lumborum) is the “hip hiker”. It raises the unilateral (same side) pelvis to allow the “swing” phase of ambulation. In other words, the quadratus lumborum contracts to raise the unilateral pelvis to allow the foot to leave the ground when taking a step. It also serves as one of the pelvic and trunk stabilizers during functions of the trunk, including trunk flexion, extension and rotation.

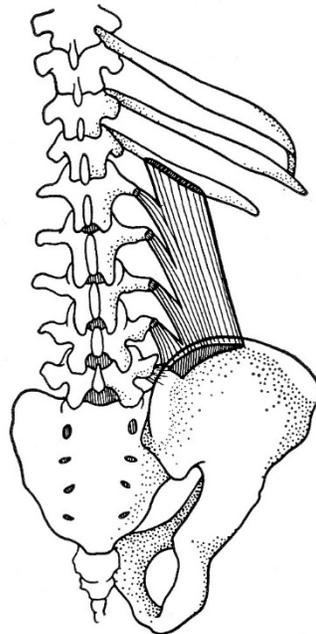
The quadratus lumborum has its origin on the iliolumbar ligament and adjacent 2 inches of the iliac crest. It inserts on the medial half of the lower border of the last rib and onto the apices of the transverse processes of the upper four lumbar vertebrae via small tendons.

Because of its role as a trunk stabilizer, it can be “strained” when lifting an object (usually heavy) and trunk rotation are performed simultaneously. This can create a painful condition labeled the *Quadratus Lumborum Syndrome*.

The pain pattern associated with the *Quadratus Lumborum Syndrome* is highly variable. It may be described as a “tick in the side, 3 to 6 inches lateral to the spine and just under the last rib, or a pain

pattern that encompasses the entire unilateral low back area (from just next to the spine, lateral along the margin of the last rib and down to the crest of the ilium). Between these two extremes, other smaller pain patterns have been described, occurring in various locations within the extreme described pain zone. Patient complaints vary from “an intense sharp pain” when certain body movements are attempted, to a constant “aching-throbbing pain” throughout the entire pain zone. A pattern of high skin resistance will generally reflect how much of the quadratus lumborum muscle is involved.

Most often, the *Quadratus Lumborum Syndrome* occurs on only one side, but it has been known to appear on both sides, simultaneously. In the latter case, the pain may be quite debilitating and may be misdiagnosed by both physicians and patients as a “ruptured disc” with peripheral nerve impingement issues.



Quadratus lumborum muscle



The high skin resistance pattern commonly associated with the Quadratus Lumborum Syndrome

Treatment

Treatment of this condition should be directed at decreasing inflammation and adhesions in and around the involved area.

Application:

- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.8 W/cm². Ultrasound the inflamed zone, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes.
- Manipulate the soft tissues over and around the involved quadratus lumborum to eliminate any existing adhesions.
- Apply a cold laser (with or without simultaneous electrical stimulation

provided by the laser applicator) to the inflamed zone, for approximately 6 minutes. This is performed to “cool off” the manipulated zone by denaturing or effectively facilitating enzyme destruction of **all** remaining inflammatory chemicals.

A complete resolution of this pain syndrome may take place in one session.

Post Treatment Suggestions:

Ultimate success, and prevention of a reoccurrence of this syndrome, may depend on the patient avoiding all lifting and twisting simultaneously, for two weeks.

Trigger Points

The following trigger point formations may, singly or in combination, imitate or contribute to the pain associated with the *Quadratus Lumborum Syndrome*: Multifidus (S4), Longissimus thoracis (L1), Longissimus thoracis (T10-T11), Multifidus (L2-L3), Multifidus (S1-S2), Iliocostalis lumborum (L1), Iliocostalis thoracis (T11), Middle rectus abdominis, Lower (caudal) rectus abdominis, Gluteus medius, and Gluteus minimus.

