

## 3 Key Muscles Involved in Lower Back Pain

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This worksheet is a supplement training guide to "3 Key Muscles Involved in Lower Back Pain" video published on June 29, 2016.

Check out the link for our free resource: <u>http://journeytopersonalgreatness.com/greatness-training-guide/</u>

It's Humpday Hustle! It's about putting a little focus on your body; the true temple of the soul and all your passions. I am fully aware of the interconnections throughout the body, and we can arguably associate any muscle to the overall optimal functioning of the lower back. But in this video, we will just focus on the 3 key muscles involved in lower back pain.

## I. Latissimus Dorsi

**Origin:** the latissimus tendon attaches with the teres major, to the medial edge of the intertubercular groove on the humerus.

**Insertion:** to the spinous process of the lower six thoracic vertebrae, to the sacrum via the lumbar aponeurosis, and to the crest of the ilium. The caudal end of the muscle attaches itself on to the last three or four ribs.

Action: the latissimus dorsi primarily extends the arm at the shoulder. It also adducts and assist in internal rotation of the arm, as well as depressing the humerus.

**Importance:** as you can see by the description of the origin and insertion, the latissimus dorsi has a profound effect on the causation and perpetuation of LBP. Travell and Simon noted that the latissimus dorsi attributed to LBP in many patients to tears and fibrous tissue pathology of the lumbodorsal and subfascial fat. The evidence was all based on operative findings where the researcher surmised that the damage was done by excessive tension of the latissimus dorsi.

## II. Iliopsoas muscle

**Origin:** at the superior portion, the psoas portion of the iliopsoas attaches the sides of the lumbar vertebrae and the intervertebral discs, while the iliacus attaches on the upper <sup>3</sup>/<sub>3</sub> of the iliac fossa.

**Insertion:** at the distal end, the iliopsoas as a group attaches itself to the lesser trochanter of the femur.

Action: the primary action of both muscles are flexion of the thigh at the hip. The psoas can assist extension of the lumbar spine when one is standing in a normal stance. This can be seen when you examine a patient with a lordotic posture, or simply, and increase curvature in the lower back when looking at them from the side.

**Importance:** take note that when it comes to LBP, the psoas can play a major role in the cause and perpetuation of the pain and dysfunction. A tight psoas muscle can also be the cause of problems related to disc herniation, due to its attachment to the intervertebral discs in the lumbar region. Manipulation of the psoas to release active trigger points and tightening, can be an effective method of treatment.

## III. Gluteus Maximus

**Origin:** posterior border of the ilium and the posterior iliac crest. It also attaches itself to the posterolateral surface of the sacrum, the side of the coccyx, the aponeurosis of the erector spinae muscles, the length of the sacrotuberous ligament, and to the fascia covering the gluteus medius muscle.

**Insertion:** at the distal portion, about . of the muscle attaches itself to the thick tendinous aponeurotic sheet that crosses the greater trochanter and joins the illiotibial band to the fascia lata. The remaining deep lower fibers of the gluteus maximus are attached to the gluteal tuberosity of the femur between the attachments of the vastus lateralis and adductor magnus muscles. The more distal fibers of the gluteus maximus that arise from the coccyx originate embryologically as a separate muscle and fuse with the sacral portion before birth.

**Action:** powerfully assist extension and lateral rotation of the thigh at the hip. The gluteus maximus muscle is very active during any running activity, but during balanced standing and walking, the muscle shows minimal activity. All fibers of the gluteus muscle helps with extension and lateral rotation of the thigh. Abduction of the thigh is assisted primarily by the upper fibers; the lower fibers help to adduct the thigh against heavy resistance with the thigh flexed.

**Importance:** gait and stride length will be affected by a dysfunction of the gluteus maximus muscle. The gluteus maximus is also integral in the proper functioning.

Build a peak performance team. This peak performance team will work with you to develop a program suited to your individual needs; and will always implement the highest quality and most advanced treatment strategies available. Team members may include nutritionist, naturopaths, acupuncturist, massage therapists, physiotherapists, chiropractors, etc.

What therapies will be part of your team?

Our JTPG and peak performance programs begin soon. Sign up to our website and subscribe to our Youtube channel so you can be the first to be informed when we begin the journey to optimal health, peak performance and your personal greatness.

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