

*Intracell Technology* targets the science and art of muscle management. The Science is duplicated with trigger point therapy and myofascial release. The various Intracell instruments consummate the art. The intent is to simultaneously compress and stretch involuntarily contracted muscle – and enhance the flow of critical body fluids.

## Anatomy / Physiology

Healthy muscles can be compressed, stretched, twisted or shortened without pain or limitation. The opposite is found in muscles that contain trigger points.

Trigger points are contracted fibers that feel like a knot or bump in the muscle. They cause pain, weakness, and stiffness. The host muscle often aches and fatigues during minimal exertion. Trigger points rob the body's energy and impair the flow of critical body fluids. Trigger points are anatomically and physiologically consistent. They are clinically and research documented.

This article presents a summarized overview of verified trigger points of the upper leg. It very briefly describes known methods and techniques to extinguish both active and latent trigger points. At no time, however, are the suggestions, procedures and ideas intended to replace or substitute the medical advice or treatment of the readers' healthcare provider. Please consult your personal healthcare practitioner before adopting any of the suggestions or procedures. Never perform when massage is not indicated.

## Instrumentation

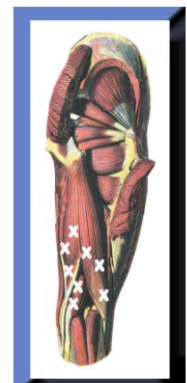
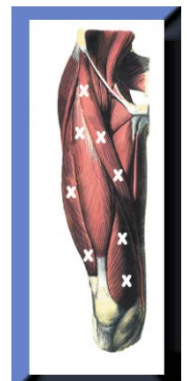
Unless otherwise noted, referenced "treatment" or "release" is performed with the Intracell, TheStick or TriggerWheel. Instruments are available through healthcare providers, selected resellers and online.

## Muscle Management Techniques

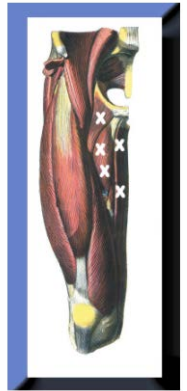
The **anterior thigh** muscles also occupy a portion of the inner and outer thigh. Trigger points in the rectus femoris are often found at the hip, but can refer pain to the knee. This muscle is easily over-loaded during deep knee bends. Trigger points of the lower vastus medialis may not produce pain, but only dysfunction and weakness. Numerous trigger points are found in the vastus lateralis causing lateral thigh pain from the hip to the knee. Superficial thigh pain can often be related to trigger points in the sartorius muscle. The muscles of this group are treated with The Stick. The knee is straight and muscles are kept relaxed during treatment.

The biceps femoris, semitendinosus and semi-membranosus muscles of the **posterior thigh** are collectively known as the hamstring muscles. Prolonged sitting and/or bed rest frequently will precipitate hamstring trigger points. Chronic low back pain is often associated with stiff, tight hamstrings. It is vital that these muscles are relaxed during treatment.

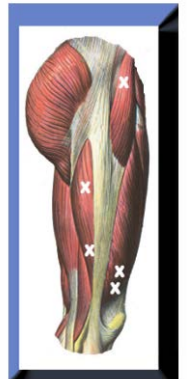
Self-use requires a flexed 80° to 90° flexed knee, and may be addressed while standing, sitting or supine. During assisted treatment the patient is prone, the knee is flexed, and the foot is supported about 20° off the table. Slow, gradual strokes with The Stick are required – this muscle will not tolerate rapid treatment. The typical "**pulled hamstring**" requires deep and frequent release to accentuate healing. Maximum recovery is enhanced by 6 – 8 short, daily treatment sessions.



This **medial thigh** group of muscles is responsible for moving the thigh to the midline of the body. Collectively they are known as adductor muscles of the hip. Responsible for numerous groin symptoms, they are one of the more difficult muscle groups to differentiate - as well as release. To self-treat these muscles it is best to stand upright with the affected leg supported in a chair – about knee level. Place the Intracell Stick between the legs and make short, progressively deeper passes along the lower grain region. Assisted treatment is best accomplished while lying supine. The affected leg is flexed, gently opened and supported against the provider. Here, the preferred instrument is the TriggerWheel. This technique must be reserved for the skilled and knowledgeable provider of service.



The tensor fascia lata [TFL] muscle is a rather small but extremely strong muscle of the **lateral thigh**. Runners, especially sprinters, rely on this muscle for explosive starts. It is vigorously active during vertical jumping. This is the primary muscle associated in the iliotibial band syndrome. Although most of its referred pain is to the hip joint and the upper/mid thigh, its trigger points can be associated with dysfunction of the knee. When a prolonged erect sitting posture provokes unilateral hip pain – look for trigger points in the TFL muscle on the same side.



Treat the TFL muscle with the leg straight and relaxed. Use very short back and forth strokes with The Stick. The TriggerWheel is preferred when deeper release is needed. The iliotibial tract is treated from hip to knee. Apply short back & forth strokes with The Stick.

### Reference

For a detailed study of upper leg trigger points, please consult  
Myofascial Pain & Dysfunction – The Trigger Point Manual,  
Volume 2, authorized by Janet G Travell, MD and David G Simons, MD,  
published by Williams & Wilkins