

MY ACHING RIGHT HIP

Hip pain can often times be debilitating whether you are attempting to walk up and down a flight of stairs or simply roll over in bed. Often patients express that their hip pain is localized to one of three anatomic regions and/or potentially all three: the front of the hip/groin, the back of the hip and buttock, or the outside hip. Pain that resides in the front of the hip is commonly associated with hip pathology, such as osteoarthritis, hip impingement, and/or hip labral tears. Pain that resides towards the back of the hip can be associated with piriformis syndrome, sacroiliac joint dysfunction, and sciatica. Pain that exists towards the outside hip is often consistent with trochanteric bursitis and/or a tendinitis related issue.

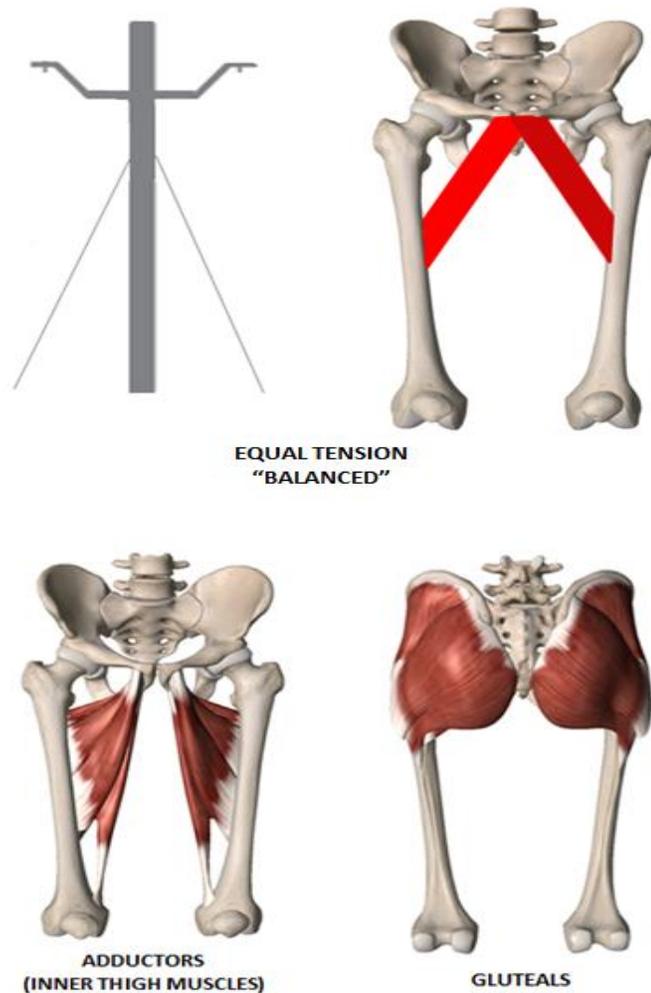
The hip joint is a ball-and-socket type joint and is formed where the thigh bone (femur) meets the pelvis. The hip joint is one of the largest joints in the body and is a major weight-bearing joint. The muscles of the thigh and pelvis work together to keep the hip stable, aligned and moving. It is the muscles of the hip that allow the movements of the hip. A healthy hip can support your weight and allow you to move without pain. Changes in the hip from disease or injury will significantly affect your gait and place abnormal stress on joints above and below the hip. The hip joint's ability to balance forces through its full range of motion allows for the stability required to perform everyday tasks such as standing upright and a balanced gait.

The underlying consideration behind most treatment approaches is that hip pain is the result of overuse, wear and tear, or malalignment. Given as such, often times treatment interventions are often focused strictly at the sight of pain, and typically include steroid injections, therapeutic modalities (Heat, E-Stim, Ultrasound, etc.) stretching activities, and potentially surgery. These interventions are in effort to decrease the inflammation and pain in the respective area. Although this is one way to approach the problem, it may be feasible to take into account a biomechanical approach.

Several factors may contribute to a pelvic tilt, but typically it is from an imbalance of muscles pulling on the pelvis. In other words, certain muscles may not be working properly and other muscles may be working too much. Structurally, some muscles become shortened and others to become lengthened. As a result, muscle imbalances place tension on bone and soft tissue, increase loading to your joints causing excessive wear and tear. When the pelvis on the left side tilts further forward than the right it influences the length of the muscles around the hip and ultimately the way the hip functions. Due to this position, your pelvis and spine are orientated to the right which shifts your body weight to the right.

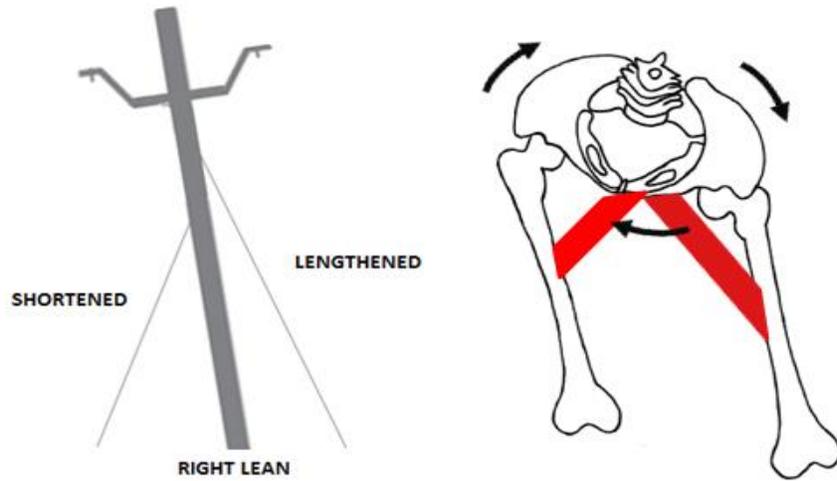
With regards to left and right hip pain, different muscles need to be recruited where others need to be inhibited. Let's take a look at right hip pain. Muscles attaching to the pelvis directly affect the position of the pelvis which can ultimately affect the position of the thigh bone. We can influence the position of our pelvis by strengthening certain muscles. If your right hip hasn't improved in spite of the stretches, exercises, and therapies, perhaps it's time to look at the left side. A common misconception is that there are one or two muscles on the right side that can be identified as being tight, and that it is the result of these tight muscles that are causing one's right hip pain. From a clinical standpoint, right hip pain does not necessarily mean that you have a right sided issue, and therefore does not mean continuing to treat the right hip is the correct thing to do.

Using the analogy of a telephone pole and its guide wires one will be able to clearly understand how the muscles on the left and right side of the pelvis influences its overall structure. A guide wire is a tensioned cable designed to add stability to a free-standing structure. Muscles that control pelvic position act in a similar fashion to keep the pelvis balanced from side to side. In order for the telephone pole to be straight and erect the tension on the guide wires needs to be equal and balanced on either side of the pole. Think of the muscles acting as guide wires on a telephone pole and think of the telephone pole being the pelvis and thigh bones. The inner thigh muscles (adductors) and outer gluteal muscles assist in stabilizing the pelvis from side to side.

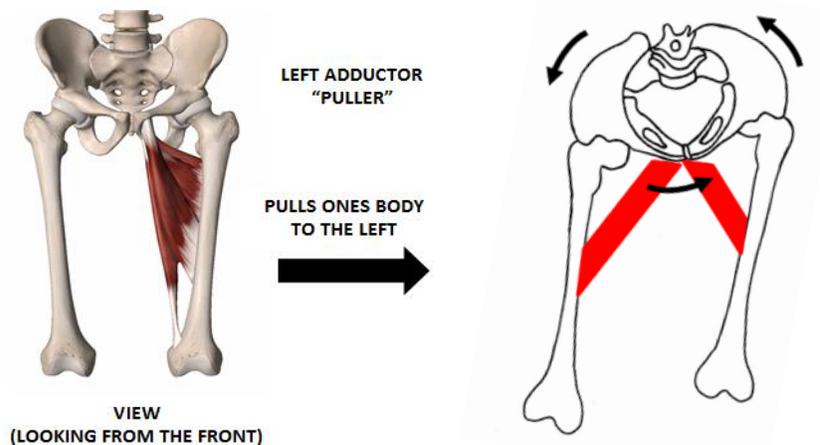


Taking a further look, lets say the ground erodes or gives way on one side, or there is a lot of wind that continuously blows from a certain direction, the pole will begin to lean. The guide wires on the side the pole leans toward become short and tight. Even if you push the pole back upright, if you don't loosen the tension on the guide wire or tighten the opposite guide wire, the pole will continue to lean.

Pelvic positioning acts similarly to a telephone pole being held up by guide wires. Acknowledging that we all have asymmetrical tendencies that will affect how we sit, stand, walk, run, squat, etc. over time these tendencies will bring about postural changes and change the resting length of muscles. Over time some muscles shorten and tighten, while others lengthen and become loose. The result is a muscle imbalance. For example, habitually standing on one's right leg will shift one's center of mass to the right causing the increased strain on the right hip. The right adductor will be short and tight and the left adductor will be long and loose.



In order to direct your pelvis to a more balanced state you have two options to either push from the right side or to pull from the left. With respect to muscles, you would facilitate the right glute max to push you to the left and the left adductor to pull you to the left. With respect to right hip pain, simply decreasing the activity on the right side would decrease one's pain. In spite of stretching a tight right hip or groin, one would still need to tighten a muscle on the opposite side to maintain the length that you gained from stretching.



In the end, the key to successful treatment outcomes is the patient's understanding of how the body functions and their ability to influence their postural patterns. If not addressed, these repeated or sustained positional asymmetries possibly will lead to movement dysfunctions, structural changes due to overuse/overload principles, and altered biomechanics. The next time you encounter right hip pain, please take into account it may not truly be a right sided issue. You may want to tighten your left guide wire to decrease the strain on the right side!