

Articulation

Hanneken Full Potential Physical Therapy Newsletter June 2010

THE HIP

Over the past several months we have looked at the ankle and knee and how they work from a basic perspective. Hopefully, the articles provided enough information to help you make an informed decision on when to get some help with an ongoing problem related to these joints.

Following the same upward pattern, the hip is our next joint of interest. It is unique in relation to the ankle and knee since it is not a hinge joint (one plane of motion) but is a ball and socket joint (see diagram) and is capable of a wide variety and range of movement due to its design. When a joint is designed for more motion, then the muscular system must be more sophisticated to utilize the potential motion in that joint. So we see a much more complex arrangement of muscle around the hip to provide essentially 360 degrees of motion and proper control of that motion.

The ball and socket joint is strategically located between the knee (hinge joint) and the lower back/ pelvis, neither of which is designed very well for rotation. As a result, the hip is in a crucial position in the body to provide some much needed rotation so we can walk, play golf, or kick a ball. Loss of motion in one or both of the hips is one of the most common reasons for someone to have pain in the back, hip, buttock, or knee for that matter.

Classically, we lose rotation in the hip, especially internal rotation. That is the motion which occurs when sitting, feet are dangling, and you move your feet to the outside. Do both feet move equally? Can you move at least 30- 35 degrees (one

third of the way to horizontal)? If not, you likely have decreased internal rotation due to tightness that develops in the buttock or gluteal/rotatory muscles. As one loses internal rotation, more compression is experienced in the hip socket. This contributes to increased friction and wearing of cartilage. This is osteoarthritis in its formative stages.

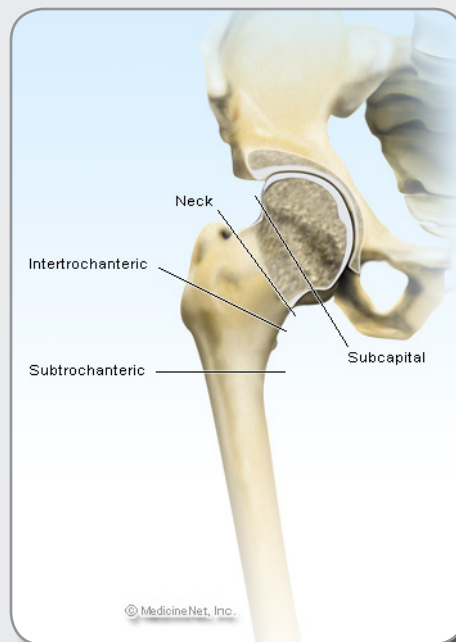
It is a common reaction in the lower back and sacral joints to have to extend their motion beyond what is normal when the hip gets tight. This ongoing strain in the lower back is one factor in why it is a common site for pain and early osteoarthritis. The lower back has great compensatory ability and will contribute extra motion to substitute for tight hips; but eventually the lower back will begin to tighten in a protective response that may ultimately be painful.

Even if you have an acute strain of your lower back, the basis of it can be a lower back that is not able to adapt very well. Tight muscles in the back are not able to lengthen quickly. When an unpredictable stress is experienced, the back is either able to adapt and control the stress, or it strains. Adaptability to unpredicted stress is a youthful characteristic. This idea of adaptability sounds like something one would like to extend into our later years if it was possible.

Why do we lose this adaptability? It is a complex process since it can happen over decades of time. Once again, something that happens slowly and commonly is seen as normal. But, it could mean that we are not handling the area very well and so it breaks down early in response to sustained and repetitive stress. The old axiom "form follows function" is quite appropriate.

To extend the adaptability for the lower back it is crucial that the basic motion of the hip is maintained. A good stretching program for the hip can be a great asset for restoring a percentage of your adaptability. The hip and lower back area are a complex region in the body. Looking at all the factors requires a good evaluation that assesses from the ground up. When a stretching program is combined with corrective and stability exercises for a complete trunk program, then the basis for adaptability is being addressed more comprehensively.

When a problem is prevented or corrected early in the hips, then a whole series of compensations and stresses could be preempted



Ball & Socket Joint

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that can affect tissues that are more difficult to manage and heal (disks, nerves, ligaments, tendons, cartilage, and joints). Muscle imbalance is often the initial step in the process to more complex problems since it is the most dynamic and changeable part of the system.

Creating a more sound musculoskeletal system is more about working from the preventative/causative side of the equation than our current health paradigm of reactive health care. It is through education that we can avoid the footsteps of the past that lead us to repeat it. Walking into a future where more is applied about what is known is called taking responsibility for ourselves. In some small way, I hope these newsletters help you to be proactive in your healthcare decisions.

Vincent Hanneken P.T.

Full Potential News

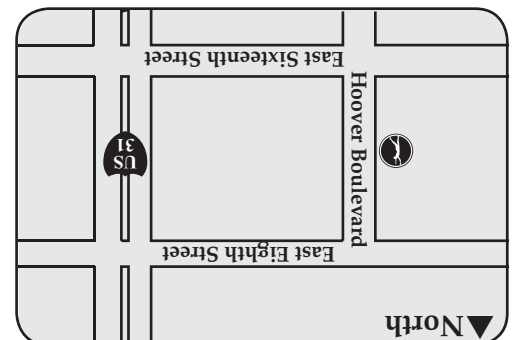
What Our Clients Have To Say:

“(Before Physical Therapy) I had pain and limited mobility in the neck and shoulders. (Now) Enormous improvement! The therapy was great and Allison was professional and slow-nothing too overwhelming. Very effective. Thank you!!

---Lorma Freestone

For more patient testimonials, please visit fullpotentialpt.com!

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