

The Effect of Lower Extremities on Sacroiliac Joints

Ignoring the effects of the lower extremities on the sacroiliac joints and entire spine can mean missing the root cause of pain and denying the patient correct and appropriate care.

After teaching hundreds of lower extremity seminars in all parts of the world, it is my opinion that gait, as it pertains to the sacroiliac joints and spine, is poorly taught and understood by the majority of the chiropractic profession.

This is a very disturbing fact when we look at it in the light of a profession that is craving acceptance on one hand, and holding on to outdated and historical views on the other. The editor of this publication, Don Petersen Jr., in his column in the August 15th edition stated: "It now becomes strictly an issue of credibility." Well, I totally agree! If we want acceptance, inclusion into HMOs etc., and the respect we think we deserve, then we must as a profession become credible.

The lower extremity has a huge influence on the function of the pelvis and lumbar spine, however few of the profession have taken the time to attend up to date scientific forums or read the current literature. As always, an example to support my position will be offered; as there are many to choose from, let me offer the movement of the fibula as but one example. After inquiring at a number of chiropractic colleges as to the movement of the fibula, with only one exception did I find the following. The fibula moves superior during dorsiflexion. To palpate the fibular motion at the proximal tibiofibular joint, the head of the fibula was pushed posterior and then pulled anterior. Sound familiar? The fibula does rise superior in the open kinetic chain posture of non-weightbearing but how many of your patients actually walk this way? None actually, they all engage the fibula during weightbearing and in the closed kinetic chain position the fibula drops inferior and does not rise superior.

You see the problem is that chiropractors rarely if ever examine the fibula in a weightbearing situation: the position in which it performs. Examining the fibula in a position of non-function is clearly an expression of ignorance about the function of the lower limb; then making adjustments to a structure that is not in a position of function during the examination brings up the question of credibility. Doctor, what are you adjusting for?

The palpation of the fibular head is also a very interesting thing as well. It appears that with few exceptions students are taught to push and pull the fibula head to examine it. The problem is that the fibula does not move in this plane. The facet on the tibia that the fibula moves on faces posterolateral-inferior in orientation, and any attempt to push and pull will most assuredly produce a positive joint-play finding of joint dysfunction. Interesting, isn't it, when people run around telling others that joint-play analysis is unreliable, when they are ignorant of the normal function of the human anatomy? I feel sorry for their patients and wonder what else they have forgotten. Motion palpation will never be a reliable diagnostic procedure when the studies are done by the ill-prepared. According to a recent text on neuromusculoskeletal differential diagnosis, "Diagnosis is merely a function of applying one's knowledge of anatomy." Tell me doctor, how good is your knowledge?

So now you are aware that the fibula drops during the weight bearing state and are probably asking yourself, "So what! What does that mean to me?" The answer to this question is vital to the understanding of how the lower limb impacts on the pelvis and spine. When the fibula drops inferior it loads, by traction, three structures: the peroneus longus; the tibialis anterior (both which function in harmony to produce a longitudinal sling of support to the first ray complex, so that heel strike to toe off will be a smooth continuum); and the long head of the biceps femoris. It is through the biceps femoris that the inferior load is transferred to the sacrotuberous ligament. The sacrotuberous ligament, like the latissimus dorsi, has fibers that coil so that the inferior fibers become the superior one, and the superior fibers become inferior ones. This coiling of two distinct structures is thought to play a significant role in force transfer from the extremities to the spine and pelvis during ballistic activities and, although vital, space will not permit its discussion at this time. The sacrotuberous ligament checks but does not prevent the action of sacral nutation. Sacral nutation, you might recall, is the result of force closure and is the position of pelvic stability. The multifidus muscle, the main extensor (not a rotator) of the spine is intimately associated and connected to the sacrotuberous ligament. We now have connected the foot with the sacroiliac joints and lumbar spine. It should be fairly obvious by reading this information that it is indeed a credible fact of anatomical realities that the lower limb can and does impact on the function of the spine and pelvis.

The point I am attempting to drive home here is very simple. Credibility demands upgrading and a letting go of the past, not all of the past, just the out-of-date portions. The word "philosophy," according to the Oxford Dictionary, is "the use of reason and argument in search of truth and knowledge of reality ..etc., and history is a continuous record of events," etc. I often wonder which it is we cling to in reality.

Credibility is earned, not given freely just because we think we should have it.

I have attempted to, in a very brief way, point out some of the more simplistic aspects of the significant contribution provided the human frame by the extremities. This explanation is indeed very incomplete, however the curious can hear the complete explanation at any MPI E-1 seminar.

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