The Biomechanics of Squatting

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It has been a central theme of the chiropractic profession that structure is function. With this philosophy in mind, I am going to address the biomechanical side of squatting. In previous papers, I discussed how the modern toilet has robbed us of normal bowel function, produced autointoxication, and led to all manner of ills. In this paper, I will discuss how lack of squatting has robbed us of our structural balance and energy flow.

Squatting is the most central posture known to humanity. Throughout history people have always squatted. It is the most common posture used by "uncivilized cultures" in sitting, and is our only option as a posture of elimination in natural surroundings. In the squatting posture, muscles are magnificently stretched, structural balance is maintained, and our energy level and bowel circuits are activated. Western civilization's adoption of the sitting posture has robbed its citizens of structural balance and energy flow. In China, if individuals cannot squat flat footed on the ground, they are considered sick. If this standard is correct, the majority of adult people in western society are ill.

When an individual cannot squat, it is because the muscles of the lower extremity and pelvis have become foreshortened and imbalanced. The muscle groups most foreshortened from lack of squatting are the erector spinae, adductor, hamstring, calf and the external rotators of the pelvis. This foreshortening leaves an individual with a condition known as "ADUNOSIS," or lack of a rear end. More importantly, the biomechanics of the whole body are negatively affected.

Tight calves cause the muscles that support the arch to turn off, and a pronated foot results. The dysfunctional foot then causes knee and low back instability.

Tight adductor, hamstring, and external rotators in the pelvis, such as the piriformis, cause the buttocks to be sucked under. When this happens, the ilia flare outwards and the ischiums come toward the midline. This phenomenon can be confirmed by palpating for tension in the piriformis muscles and feeling for spasms in the sacroiliac ligaments. Such flaring out of the ilia and shifting of the ischiums dramatically compromises the structural balance of an individual and predisposes him or her toward low back and sacroiliac problems.

As though this were not enough, when we make use of the modern toilet, further structural imbalances occur according to the following scenario. When we bear down without the support that is normally afforded by the thighs while squatting, we make demands on the ileocecal valve beyond its capacity. The valve therefore becomes dysfunctional. Because this is so stressful to the system, the abdominal and psoas muscles in the lower right quadrant weaken. I see this muscle imbalance pattern in approximately 80% of my new patients on a postural analyzer. It is evidenced by the right buttock rotating toward the posterior and the torso shifting off the center line to the left.

Structurally, the right ilium then lacks support, and flares more outward. This is evident when the right buttock is palpated for tenderness, especially at the crest of the ilium. That the sacroiliac joint is distressed is also evident by the tenderness of its ligaments.

When the right psoas weakens, the lumbar spine twists, negatively impacting the lumbar discs. There is no more important muscle to balance in the case of disc problems than the psoas. Furthermore, when there is a weakness in any given part of the body, reactive tightening always occurs elsewhere. In this case, when the right psoas is weak, the left psoas usually tightens, as does the lower bowel on the left. This produces a stricture in the bowel and backs up plumbing like a clogged drain.

Below is a picture from a book called "The Prevention of Disease Peculiar to Civilization." Sir Arbuthnot Lane, a structure-oriented surgeon, operated on thousands of bowels, and found a strictured area in the lower left quadrant in virtually all of them. He stated that this blockage, which I see as reactive tightening secondary to a dysfunctional ileocecal valve, robs us of our health. He went on to say that cancer results from autointoxication secondary to this dysfunctional bowel. He urges us to return to the standard of a bowel movement after every meal established by Hippocrates 2400 years ago. This standard is supported by the relatively recent physiological discovery of the gastro-colic and duodeno-colic reflexes.

Many great chiropractors such as Dr. Cox and Dr. Goodheart have pointed out the strong correlation between bowel problems and low back pain. It is interesting to note that the associated point for the bowel is located at L5, the most involved lumbar vertebra. The majority of cases of low back pain that I treat respond very favorably when chiropractic and bowel reflex therapy are used together. I have all of my clients squat, but stress it more so when they have low back pain.

When the pelvis's balance has been warped by foreshortened and weakened muscles secondary to lack of squatting and use of the modern toilet, its function is very much compromised. Normal cranio-sacral respiratory

motion is grossly inhibited. The benefit of normalizing cranial sacral motion on such individuals is at best transitory.

When an individual adopts the squatting posture in elimination, the ileocecal valve normalizes, and elimination improves. In this way the right psoas and lower abdominal wall are strengthened. This then allows the bowel to function better, thus improving the state of the lower lumbar.

When the same individual also squats as an exercise, dramatic benefits are achieved. Squatting gradually normalizes pelvic geometry so that spinal energy is increased. Adjusting a pelvis like this back into position is not plausible. However, chiropractic adjustments greatly facilitate this wonderful change.

When the pelvis is balanced, cerebro-spinal fluid flows once again as normal cranial sacral movement is reinitiated. The cerebro-spinal fluid is the lifeblood of the nervous system. When it is flowing well, spinal adjustments carry far greater impact. All organs of the body profit from renewed life currents.

The squatting posture also stimulates the tibialis anterior, which affects stomach 36 and 37. Stomach 36 is the major energizer of all the meridians in the body. Stomach 37 is the major bowel point, and dramatically improves bowel function.

The benefits of squatting are so great that the late Dr. Randolph Stone likened his three squatting postures to an acre of diamonds in everyone's backyard. He stated that squatting "is literally riding the river of life's energy waves and tuning into them!"