

Evaluating and Correcting Posture Issues: Posture and Body Awareness

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Day in and day out, we - and our patients - feel rushed and stressed. Is it any wonder we've all distanced ourselves from the body's signals of discomfort in an effort to get things done? Such messages and signals may manifest as a particular ache or in overall stiffness in the body. As people [sit](#), [stand](#) and [walk](#) throughout their day, shouldn't we provide them with greater consciousness of their poor habits?

Faulty Repeated Movements

One of the first important concepts I try to educate patients on is that repeated movements (especially faulty movements) and prolonged postures result in changes in tissues and movement patterns. This results in a segment developing a susceptibility to move in a specific direction, and this may cause pain because of microtrauma from the stress on the tissues.

For example, consider failure of the stability muscle to hold the lower-limb segments in good posture during the stance phase of running or walking. If the gluteus medius, vastus medialis and tibialis posterior are not functioning optimally, there will be an increase in internal rotation of the femur and valgus positioning of the tibiofemoral joint from heel contact to mid-stance phase. The patella will track laterally, leading to an increase in activity of the tensor fascia latae and vastus lateralis, and the foot will excessively pronate. Such faulty mechanics can be the precursor for Achilles tendinopathy, medial tibial stress syndrome (MTSS) or iliotibial band syndrome.



As another example, after an acute lower limb injury (ankle or knee sprain), gluteus maximus activation decreases. This affects performance (reduced propulsive force and lumbopelvic stability), leading to overactivity of the hamstrings and lumbar spine extensors, and is associated with reduced range of movement in hip extension. These changes can manifest as a variety of pain states including extension-related low back pain from excessive shear forces between vertebrae or referred pain in the lower limb as a result of adverse neural tension.

Lots of doctors and physical therapists talk about stability training. Keep in mind that *stability is not strength; stability is reflex driven*. Maybe we should replace the word *stability* with *motor control*. Most of the small muscles (stabilizers) in the body want better timing (ability to turn on and off), not strength. The stabilizers are meant to fire (turn on) and hold the bone in an optimal joint position while the larger mobilizer muscles do the job of moving the bone.

If our exam can identify the susceptibility of segments to move too much in a specific direction because of poor timing, then the cause of joint irritation can be corrected, thus decreasing or eliminating pain. Not only do we need to help patients recognize physical *holding patterns* (poor postures), but we also need to identify and magnify faulty *movement patterns* so patients are aware and understand them.

Learn to Observe Gait

In my office, a 45-year-old male with chronic low back pain walks down my hallway with an obvious abnormal gait. He walks with his right foot externally rotated and very little to no arm swing. His arms just don't move; they stay along the side of his body when he walks.

This external rotation of the right foot was related to the right hip. This walking pattern exhibited excessive rotational flexibility in his lower back as a result of the hip musculature being stiffer than the stabilizing structures of the lumbar spine. Therefore, the more this man walks, the stiffer his hip muscles become, the more mobile his lumbar spine becomes and the greater the resulting pain.

My thinking was if the arm holding pattern and hip movement pattern could be corrected, the pain would diminish and eventually subside. I gave him two homework assignments: 1) swing his arms while walking; and 2) try to walk with the right foot straighter. Swinging the arms helps the pelvis move and unloads the lumbar spine. In order to correct bad movement patterns and postures, motor control needs to be changed. And yes, bone and joints must be considered using mobilization and manipulation. He felt significant improvement after one week of following this recommendation.

Be a practitioner with a keen sense to see a person's true essence, often hidden underneath chronic pain and chronic complaints. Don't miss the chance to observe static posture and the way a patient walks up and down your hallway.

Multi-Layed Treatment That's Individualized to the Patient

Teaching patients body-awareness concepts also points to the importance of sensory motor training, *strength training*, soft-tissue therapy, and of course, manipulation. I continue to build on my manual skills to help people get out of pain as fast as possible, as well as stretch, strengthen, lose weight, and reanimate their bodies. This year, I have taught numerous workshops or participated as a student myself while running my private practice in west Los Angeles. I was recently at three different symposiums where there were lots of chiropractic students in attendance. They seemed to feel that they were not marketable unless they had good adjusting skills, some knowledge of exercise therapy, sports taping, and deep-tissue / fascial therapy. Guess what? I agree!

I like going beyond the original chiropractic practice of manipulation and attention to the nervous system. I think it is important to discover the issues that are obstructing the quality of patients' lives. My treatment goals are to prevent and resolve muscle conflict, strengthen the core (I'm very curious about the deep core), organize fascia, facilitate weak muscles, improve dynamic mobility, overcome inefficient neuronal confusion, and teach patients a variety of movements and exercises

they can do at home on their own. Without educating our patients and getting them to practice at home, the work you do in your office may not have long-term effects and benefits.

In practice, I'm big on posture and body movement awareness - communicating what I see during my evaluation from a place of compassion, calm, clarity and confidence. As treatment interventions unfold, I continue with a layered approach: skilled hands, manipulation, flexibility training, mobility drills, strength routines (mostly with body weight, bands, balls and kettlebells), Paleo diet instructions, personalized nutrition needs, sleep hygiene recommendations, laser therapy, deep muscle stimulator techniques, [IASTM techniques](#), and so on. Soon I'll also be looking at computer-generated gait analysis. Sessions are all combined treatments because it's well-documented that exercises *and* therapy yield the best outcomes.

Treatment needs to be totally personalized - it could include listening, connecting, suggesting, advising, and performing assessments / tests that will help decide on treatment. I currently use the selective functional movement assessment (SFMA) and functional movement screen (FMS), and then deliver treatment and exercise. To me, experimental exercise offers ways to integrate disowned parts of the body and gets patients more involved in care.

This article is part of an ongoing series by Dr. Tucker on posture evaluation. To review previous articles, search for "Tucker, posture."

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