

SET TALK

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WHY DO WE GET HURT?

In our massage practices we often encounter clients presenting injuries that are both acute and chronic. Some of these injuries are debilitating to the point that the clients cannot lead a normal active life. When the pain, dysfunction and discomfort from the injuries are severe enough that clients are not able to participate in what they are passionate about in their lives then they aggressively seek help. It has been my experience that understanding why their bodies were susceptible to injury and why they got hurt is valuable to assist me in designing a treatment protocol and strategy that will help them in their rehabilitation. Let's look at two client case histories that illustrate the value of understanding why and how they got injured.

Shelly, a 20-year-old college student majoring in dance, sprained her right knee in a rehearsal for a large dance production. She went back to practice the day after the initial injury and felt additional weakening and damage due to the knee's instability as she attempted to dance. At this point she was unable to continue doing any form of dancing, or weight bearing activities such as walking. Shelly was evaluated by her physician who told her to stay off the knee for 10 weeks, after which they would then do an MRI to see if surgery would repair the damage from the sprain. After five weeks Shelly could see no improvement other than the swelling diminishing and, in desperation, sought out massage therapy to see if it would help her avoid surgery.

Jack, a 40-year-old massage therapist, went to a picnic and played volleyball. During the volleyball game he spiked a number of volleyballs and jumped many times at the net. By the time he had played approx ½ hour he was experiencing soreness in his low back, tightness in the back of his neck, and stiffness and soreness in his right arm. The next day, even though he was stiff and sore from playing volley ball, Jack had five massages to perform. By the end of the day he had to cancel his last massage due to pain and swelling in his right shoulder and stiffness in his low back. Being a massage therapist Jack came for massage therapy to help him out at this point.

As you can see both clients have injuries relating to active usage of their bodies. In addition, both clients needed to heal as quickly as possible so they could get back to the things they love. When each client came for their initial session, part of their initial evaluation

included a structural evaluation. Shelly had a twist in her body resulting in a long leg and short leg. On the long leg side, which was her left leg, her left ilium was rotated anteriorly, and her left knee was medially rotated and left foot and ankle laterally rotated in compensation for the resulting long leg. On her right side where her injury was, the ilium was posteriorly rotated creating a shorter leg with over contraction in the biceps femoris and the gluteal muscles. Further assessment using kinesiology revealed that the hamstring muscles on the right leg were in a contracted state that did not allow proper function. This was a strain pattern due to the structural distortion, not due to the injury. The actual functional strength of these hamstring muscles was only approx 30% of their normal strength. If these muscles had only been functioning at 30% efficiency during Shelly's strenuous dance training and program rehearsal, then Shelly's right knee could not maintain its structural integrity during the pressures exerted on it during the dance gyrations. At this point it was possible to determine the main cause of Shelly's knee problem.

When Jack came for treatment he was extremely motivated due to the fact that he couldn't do massage or play volleyball. Structural evaluation revealed that Jack had an anteriorly rotated left ilium and posteriorly rotated right ilium. The anteriorly rotated left ilium resulted in a long leg on the left side, and the posteriorly rotated ilium on the right side resulted in a short leg on the right. This rotation caused the sacrum to tip and the scoliosis of his spine to increase which had resulted in pain in his low back from the structural collapse. In addition, as the scoliosis continued its twist up the spine, it caused his right shoulder to be rotated medially and his right arm to be rotated internally. Both the rotation in the low back and in the shoulders and arm created strain patterns that resulted in a lack of support in the low back and right shoulder and arm while being used athletically playing volleyball. Kinesiological testing showed that the intrinsic and some of the extrinsic muscles of the pelvis were at only 30% strength. Further kinesiological testing of the arm and shoulder showed a similar loss of strength. Jack had further complicated the damage to the soft tissue of both his low back and arm and shoulder by having a busy day applying massage. Normally five massages would have been okay, but due to the lack of strength and the instability from the strain patterns they now produced inflammation, swelling and soft tissue damage.

Let us examine this concept of strain patterns resulting from structural imbalances. It has not been widely recognized due to the fact that many professionals who work with the structure and muscles do not use kinesiological testing to evaluate the weaknesses present in the soft tissue that result from the structural

imbalance. When strain patterns are examined in relationship to structure through kinesiological testing it is easy to understand why certain injuries take place. In fact it is sometimes hard to understand why there are not more injuries. Not only athletes, but our average adult who is only physically active part of the time, will still do enough physical activity to often create additional soft tissue damage because of the weakened strain patterns. A perfect example is the business professional who picks up a suitcase and develops shoulder or arm problems. Another easily understood example is the adult who bends down to pick up a 40-50 lb child and ends up with a lumbar sprain/strain of the low back. Understanding strain patterns opens up many opportunities for the massage therapist to both prevent injuries and effectively rehabilitate their clients' problems.

First, the structural condition with the rotated iliums appears to be universal with greater and lesser degrees of rotation being evidenced with different clients. This is often seen as a spiral or core distortion of the structure. It is the basis of the scoliosis of the spine and appears to be involved in 95% of all musculoskeletal problems. Since this is the case, any soft tissue treatment that supports structural balance of the sacrum/ilium relationship will lessen the degree of weakening strain in the soft tissue and provide support that will prevent a large number of injuries. This will not only be in the low back but will affect the spiral distortion throughout the body including the appendages. In addition, clients' physical performance will be enhanced as the strength is returned to the weakened muscles that were holding in a strain pattern. Many clients treated this way will avoid numerous injuries and further degeneration that would have taken place in their structure and soft tissue.

When we look at rehabilitating already damaged soft tissue and providing support to the structure, if we can return strength to weakened soft tissue that is either involved in stabilizing the structure or movement of the joint, or is necessary for the actual performance of task, then the client will be more structurally supported, stable and functional from the returned strength even though there may be actual damage in the joint or in other soft tissue. This will dramatically speed up the rehabilitation and often leave clients stronger and more stable than they were prior to the injury. The structural improvement that takes place at the alignment of the joints will be more supportive and more balanced. The principle that structural balance leads to function is more fully understood when the weakness of strain patterns from imbalance are added to the picture. By returning structural balance and reducing the weakness from resulting strain patterns, clients have a much more complete and rapid rehabilitation.

Now let us look at Shelly and how applying a protocol to balance her structure was an effective procedure in her rehabilitation. For Shelly, her left ilium was rotated anteriorly with a long leg, and her right ilium was rotated posteriorly with a short leg and an over contraction of her hamstring resulting in about 70% loss in muscular strength. The treatment protocol to address her weakened damaged right knee began by first releasing the left anteriorly rotated ilium posteriorly and addressing the distortions in the left longer leg to support the ilium as it moved into balance. Then the right side where the injury to the knee existed was treated to bring the posteriorly rotated ilium forward into balance which included releasing the over contracted hamstrings and decreasing the strain pattern which strengthened and balanced the injured knee. From Shelly's first session she noticed she was able to again put weight on the leg and feel supported. In addition she noted an immediate increase in range of motion, and a decrease in soreness. After three sessions she was back dancing in time to participate in her dance program.

Jack, with the same pelvic distortion as Shelly, was treated in the same sequence which resulted in an immediate strengthening and structural balancing of his low back and a lessening of the scoliotic curvature of the spine which related to the medial rotation of his shoulder and internal rotation of his arm. After several sessions Jack was again back to his full time massage schedule, but decided to wait until maximum structural balance could be achieved before putting his body through the stresses of volley ball.

The protocols used for both Jack and Shelly directly strengthened the weakened strain patterns that were responsible for the injuries they received by addressing the structural distortion that produced the strain patterns. Structural evaluation along with using kinesiology to ascertain the strain patterns gave me a clear picture of how and why they were injured and how best to support them back to function and full rehabilitation which was return to normal life activities pain free.

To more effectively address the strain patterns, those of you who have been trained to do Cranial/Structural Soft Tissue Releases work can integrate Cranial/Structural with soft tissue protocols for the most effective way to balance the ilium/sacrum relationship of the core distortion as described above.