The Organs and Musculoskeletal Dysfunction

By Mariann Sisco PT, CST-D

It has been estimated that 80–90 percent of musculoskeletal dysfunctions have a contribution from the various organ systems of the body. When limited results occur from otherwise effective musculoskeletal treatment modalities, Visceral Manipulation brings a valuable resource to your treatment table. This innovative therapeutic treatment modality addresses visceral involvement in common musculoskeletal problems, as well as innate problems within the viscera.

A healthy organ has mobility not only within its fascia but in relationship to the organs surrounding it. Each organ has an axis upon which it moves in three dimensions. When the axis is disrupted, movement is no longer optimal. This abnormal movement eventually translates through the fascia onto other organs and the musculoskeletal structures. This creates restrictions.

Organ specific fascial mobilization is another way of describing Visceral Manipulation. It helps to restore more normal movement and to alleviate faulty tension lines within the fascial system, which is a continuous web throughout the body. If your client continues to exhibit symptoms despite your application of normally effective methods, chances are an organ(s) is the cause of the dysfunction.

Psoas/kidney relationships affecting the spine and hip

As a massage therapist, you are well-acquainted with complaints of low back pain from clients. One of the structures that is examined in such cases is the length of the psoas muscle. This is due to its attachment onto the body's T12 vertebra, all of the lumbar vertebrae, and the transverse processes, as well as additional slips into the associated discs. Increased tension in the psoas can rotate the vertebrae and cause increased tightness in the paraspinal musculature. If not addressed successfully, chronic low back pain can develop. Treatment typically involves stretching and deep tissue massage to the psoas, which is often painful because of the overlying nerves.

A portion of the kidney, with its respective fascia, rests on top of the psoas and its fascia. These layers can become adhered and create the tension in the psoas. By virtue of the muscle's attachments, this can cause misalignment of the vertebrae and hip joint. The malalignment of the femoral head in the acetabulum, created by the increased tension of the psoas, can further lead to hip disorders and contribute over time to a wearing away of the articular surfaces of the joint. Osteoarthritic pain and the ensuing sequelae can reach proportions requiring surgical interventions.

The organs and the knee

The aforementioned psoas tension pattern can translate onto the knee, as well, through the new femoral rotation pattern. The rotated femur now sits abnormally on the tibia. The menisci resting in the condyles of the tibia are subjected to abnormal forces occurring with every step. Over time, the meniscus becomes worn down, which then prevents normal gliding of the femoral condyle on the tibia. This can create knee pain and dysfunction—all from a kidney "glued" onto the psoas muscle!

Other organs, when their mobility is impaired, also can affect the knee. Restrictions of the cecum or the sigmoid colon in the pelvis affect the sacroiliac joint alignment. Pelvic obliquities almost always have a visceral component associated with the asymmetry. Since every joint is related to another, the translation of these abnormal forces into the hip and knee occur and affect their normal alignment. Compressive forces irritate the soft tissues. This creates pain and dysfunction inferior to the affected organ into the knee, or even superiorly into the lumbar spine.

The more time that passes, the more opportunity there is for the tensional pattern to exert its effects on the musculoskeletal system. Treating the affected organ helps to release the tensional pattern and to restore more normal alignment, ROM, and even strength. Once the muscle is aligned properly across the joint, immediate improvements in strength can be noted, which translate into improved function.

The organs and the shoulders

In addition to translating forces through the fascial system due to a lack of visceral mobility, irritation of the organs stimulates the nerves specific to those organs. The nerves often anastomose or connect with other nerves, which can affect the musculoskeletal system. For example, the phrenic nerve, which innervates the capsule and ligaments of the liver, also exchanges fibers with the brachial plexus via the subscapular nerve. The subscapular nerve innervates the joint capsule of the shoulder. Thus, problems with the liver are conveyed via the nerve into the right shoulder. This creates referred pain and a resultant loss of motion. If the liver is indeed involved, treatment will result in a decrease of pain and an increase in right shoulder motion up to 30–40 degrees in flexion. A similar reflexive relationship exists between the stomach and left shoulder.

Treatment of the organs

Visceral manipulation techniques are very gentle and derive their effectiveness from very delicate and specifically applied forces. These are painless for the patient and provide less wear and tear on the therapist's hands.

Utilizing gentle "listening" skills with the hand, the practitioner locates the primary organ contributing to the dysfunction as he or she consults with the client. Then, specifically placed, gentle forces are applied to the organ in question. These forces begin to unravel fascial components throughout the body, thereby improving posture, ROM, strength, and function, and decreasing pain.

Organ function

Although we have focused on the relationship between the organs and the musculoskeletal system, it is important to note that Visceral Manipulation helps to restore normal organ function when it is impaired. Seemingly unrelated symptoms such as chronic fatigue can be linked to impaired liver mobility. When treated, fatigue can dissipate soon after a session. Constipation can be relieved through mobilization of the affected organs that are part of the digestive system.

Lung function can be improved when the lung is less compressed through the application of Visceral Manipulation.

It is important to note, however, that organs are treated not according to the symptoms that are presenting but rather are chosen based on the listening evaluation that detects tension patterns and immobility. A hierarchy of treatment is derived from the tissues, letting them speak to the listening hands of the therapist.

Causes of visceral immobility

The sequelae of decreased organ mobility in terms of musculoskeletal pain and dysfunction, as well as functional impairment of the organs themselves, have been explored. Loss of organ mobility can be the result of a sedentary lifestyle, surgery, chronic inflammation and infections, and even diet.

Perhaps the most common cause that brings our clients to the treatment table is a history of trauma. The most common forms of trauma are falls and motor vehicle accidents. Therapists typically are trained to assess the effects of trauma on the musculoskeletal system. For example, in a whiplash injury we know that the anterior cervical muscles are stretched suddenly, causing micro-tearing of the affected muscle fibers and then a reflexive protective contraction. However, the muscles are not the only tissues subjected to the effects of the traumatic forces. Organs absorb the traumatic energy based on the amount of force, speed of application, and the density of the particular organ. To a certain extent the trauma then resides in the organ and translates its effects through the musculoskeletal system as previously described.

Helping your patients

Expanding your therapeutic tool box with Visceral Manipulation evaluative tools allows you to find the exact location that your client is struggling with within his or her body. The techniques to improve visceral mobility allow you to treat with precision and thus maximize your effectiveness as a therapist. The study of Visceral Manipulation brings you closer to your ultimate goal as a therapist: to help someone feel better through your listening hands.