

Sources of Neck Pain

By Anita Boser, LMP, CHP

Clients usually think that pain is the "X" that marks the problem spot. As therapists, we know the source of pain is often somewhere else. In other words, "Where it is, is where it ain't," a colloquialism attributed to Ida P. Rolf. In the realm of a connective tissue matrix, internal pulls and compensations often create a symptom distant from the source of dysfunction.

As the pinnacle of the spinal cord, the neck has to accommodate for every weakness, imbalance and misalignment below, in addition to resolving direct trauma such as whiplash. There literally are thousands of sources of neck pain. In my practice, two are the most common: limited range of motion in the shoulder girdle and restrictions in the thorax.

Scapular Restrictions Limit Arm Flexion

When raising the arm overhead, the scapula must rotate 60 degrees to achieve full range (180 degrees of flexion). Not only does scapular rotation make full flexion possible, the glenoid cavity is then also in the proper position to provide support to the humerus. See Figure 1. The serratus anterior and upper and lower fibers of the trapezius contract to rotate the scapula. The costal fibers of the pectoralis major, the latissimus dorsi, and levator scapula also need to lengthen.



Figure 1

If the scapula can't fully rotate, the body will get the job done another way, usually by elevating the entire shoulder girdle. The levator then activates when it should release, and the scalene muscles often contract in an effort to assist. See Figure 2. The result is rigidity in the neck at the trapezius, levator and scalene cervical attachment sites, and often trigger points in the rotator cuff muscles which have to work through abnormal alignment.

Allow for Extension, Latissimus Dorsi



Figure 2

With your client on your table in a side-lying position, ask him to raise his upper arm in front of him and then up alongside his ear. Observe the rotation of the scapula. When the inferior angle stops moving anteriorly and superiorly assist the movement with a stroke to lengthen the latissimus and increase proper rotation of the scapula as you direct your client to rotate his elbow toward the ceiling. See Figure 3. (If the client's movement is very limited and/or his arm is weak, place a pillow under the upper arm to help support the weight.)

Scapula Coordination, Serratus Anterior

Turn your attention next to the serratus anterior. Have your client bend his elbow and place his hand on the table in front of his face or even under his head. With the back of your hand or soft fingertips, contact the fibers of the serratus on the lateral ribs. Ask your client to press into his entire hand so that the elbow moves slightly away from the shoulder joint. Feel for where the serratus is stuck or inhibited and use your touch to facilitate functional involvement. See Figure 4.

That's the Spot, Levator Scapula and Trapezius



Figure 3

Your client will certainly appreciate it if you address the adhesions that have most likely developed between the upper trapezius and the levator scapula. First release the superior edge of the trapezius from any underlying adhesions. Then, as your client extends his arm overhead again, release the levator, starting at its tendinous attachment to the scapular superior angle and directing it inferiorly. It also helps to work the length of the levator to its attachments on the transverse processes of the cervical spine, which are just posterior to the attachments of the scalene muscles, which will want some attention, too.

Thoracic Spine Immobility

While restrictions in the shoulder girdle place extra stress on the neck, lack of mobility in the thoracic spine often causes the cervical spine to exceed its range of motion. For example, if all of the motion to look over the shoulder, to side bend, or to look down comes from the neck, then the cervical spine muscles and ligaments get overworked and overstretched. The result is increasing stiffness as a means of protection.

Get in the Laminar Groove



Figure 4

The answer is to mobilize the thoracic spine and ribs, usually from T1 to T8. With your client in a sidelying position, you can use your knuckles to extricate the spinalis and paraspinal muscles at their attachments to the transverse and spinous processes. As you work, have your client make small unstructured movements under your hands. Use your pressure to stimulate the erectors and paraspinals and encourage more glide in the layers of tissue. Follow through to release restrictions in the myofascia between the ribs from their attachments to the transverse processes all the way to the sternum.

Shoulder restrictions and thoracic spine immobility are obviously not the only sources of neck pain, but adding these two assessments to your tool chest will expand your therapeutic potential and maybe even your reputation as a miracle worker.

Resources

- Boser A. Addressing back pain with undulation. *Massage & Bodywork Magazine* March 2008;76-83.
- Sahrman S. *Diagnosis and Treatment of Movement Impairment Syndromes*. St. Louis: Mosby, 2002.
- Stanborough M. *Direct Release Myofascial Technique*. Edinburgh: Churchill Livingstone, 2004.

Anita Boser graduated from the Institute of Structural Medicine and practices in Issaquah, Wash. She is the author of *Relieve Stiffness and Feel Young Again With Undulation and Undulation Exercises*. The exercises in this article are excerpted from her book. You can contact Anita at anita@anitahellerworker.com.