



## joint mobilization of the thoracic region

**THERE ARE MANY EFFECTIVE TREATMENT APPROACHES THAT ARE AVAILABLE WITHIN THE SCOPE OF PRACTICE FOR MASSAGE THERAPISTS. EACH ONE OF THESE, WHEN PRACTICED INDIVIDUALLY, CAN BE VERY HELPFUL WHEN WORKING ON CLIENTS WITH MUSCULOSKELETAL CONDITIONS.** Certainly, Western-based Swedish strokes are helpful to loosen muscle tone, break up patterns of adhesions, increase local circulation and provide many other benefits.

*Before practicing any new modalities or techniques, check with your state's massage therapy regulatory authority to ensure they are within the state's defined scope of practice for massage therapy.*

Another effective approach is to use moist heat. As a central nervous system depressant, heat helps to relax muscle tone, increase local circulation and loosen fascia. Stretching is another treatment approach that can be extremely effective. Stretching also helps to break up adhesions and change baseline muscle tone to become more relaxed.

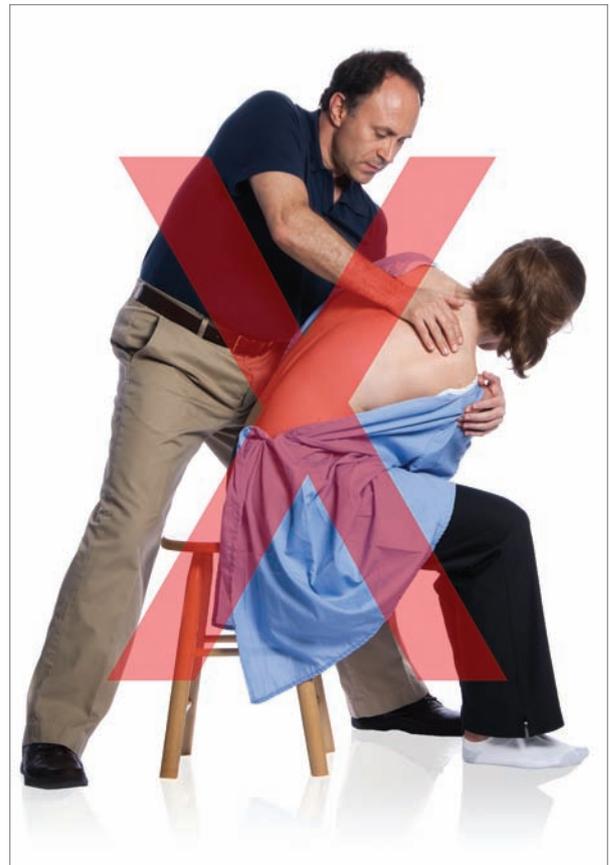
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There is an old saying: “If all you have is a hammer, everything looks like a nail.” Therapists who know and practice only one technique tend to force every client into being treated with that technique. Although a specific approach might be effective for some clients, others may not benefit. If we think of each treatment technique in our practice as a tool, then as we learn more techniques, we add to our toolbox and are able to help more clients. This enables us to become more effective therapists. The art of being a skillful clinical therapist is learning when to apply each technique, as well as how to combine them.

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**FIGURE 1:** Initial position for joint mobilization of the thoracic region. The therapist's left hand is supporting the client and bringing her upper and middle back into flexion and left rotation to create tension in the client's thoracic region.



**FIGURE 2:** Incorrect initial position for joint mobilization of the thoracic region. The therapist is bending and rotating the client from the lumbar region.

### Putting It Together

Although there is no single combination of treatment techniques that always works for clients who present with taut soft tissues, the mix of massage and heat, followed by stretching, is usually an effective and powerful approach. Besides helping in their own right, massage and heat help warm up and prepare the client's soft tissues so that stretching is much more effective. Indeed, I strongly recommend this combination of techniques.

However, across the spine and rib cage, broad stretching strokes, even when applied after massage and heat, are often ineffective at loosening taut soft tissues located at a specific "segmental" joint level of the spine.

A segmental joint level of the spine is a specific joint level, for example the T4-T5 or T5-T6 joint, and a segmental taut spot often exhibits decreased motion. In other words, the spot becomes hypomobile due to a combination of increased fascial adhesions and increased muscle tone of the small intrinsic muscles of that joint, such as rotatores, interspinales and intertransversarii.

The reason broad stretches are largely ineffective at loosening a taut segmental hypomobile level is that

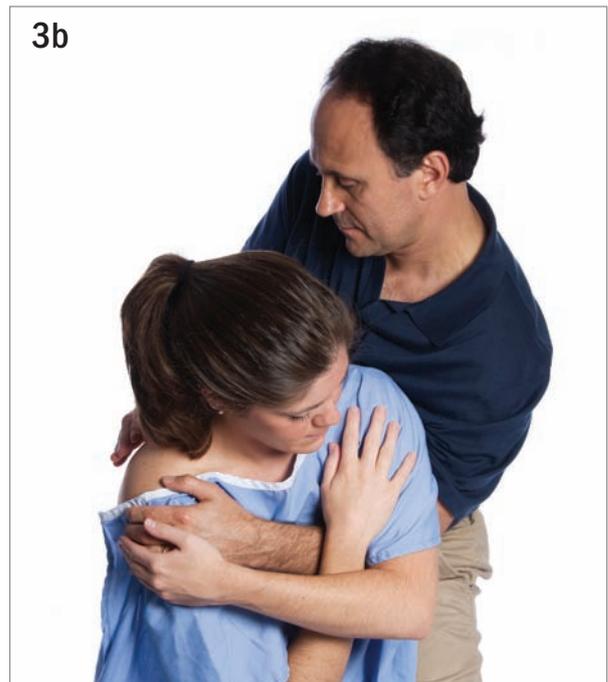
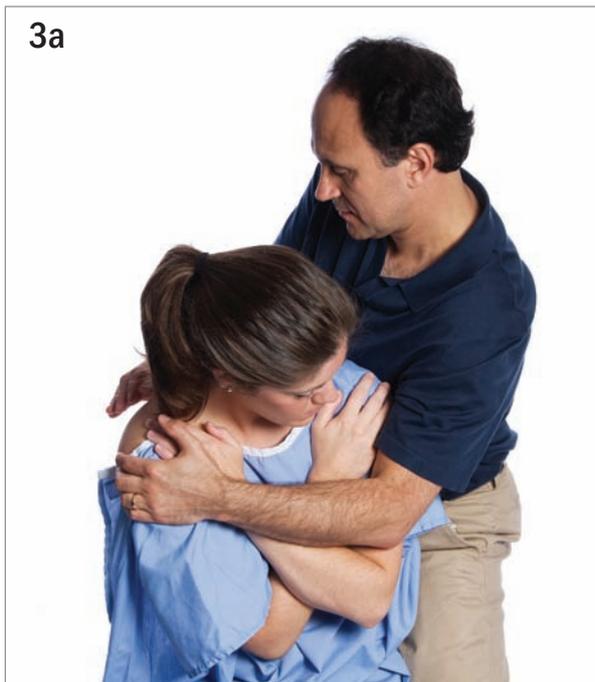
For more information on joint mobilization of the neck, see Muscolino's "Body Mechanics" column in the Fall 2007 issue of *mtj*.

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adjacent segmental levels compensate by increasing their range of motion to become hypermobile. A hypomobile joint is defined as a joint with decreased range of motion, while a hypermobile joint has increased range of motion. The hypermobile segmental levels allow a person to maintain full range of motion at that region of the spine.

However, the downside to hypermobile segmental levels is that when the region is stretched, these joints allow the hypomobile joint to avoid being stretched. Therefore, as long as these hypermobile joints exist, the hypomobile joint will persist and its tissues will remain taut. The challenge becomes how to increase and restore the normal range of motion of the specific segmental hypomobile joint.

In these instances, joint mobilization can become very valuable. Joint mobilization is essentially a very specific form of stretching. Whereas a typical stretch of the spine is spread across many spinal joint levels, joint mobilization is a technique that allows the therapist to specifically target individual segmental joint levels.



**FIGURE 3:** Two methods of supporting the client's upper body are shown. In a, the therapist's arm is in front of the client's crossed arms. In b, the therapist places his arm under the client's crossed arms.

In effect, if a joint level is hypomobile, it cannot hide behind the motion of an adjacent hypermobility. Joint mobilization applied to that level will require it to stretch.

### **Joint Mobilization**

The “Body Mechanics” column in the Fall 2007 issue of *mtj* addressed joint mobilization of the cervical spine (neck). Let’s now look at how to perform joint mobilization of the thoracic region (the upper and middle back).

To apply joint mobilization to the thoracic region, the client’s trunk must first be brought into a position that causes tension and stretches the joints of the thorax. Once this is achieved, a specific joint mobilization force is then applied to the target segmental level.

Figure 1 demonstrates this initial position for thoracic mobilization. The client’s upper back is flexed forward and rotated toward the side where the therapist is standing while the client’s neck is relaxed. It is extremely important that the flexion and rotation occur at the client’s thoracic region. If the client is flexed and rotated at the lumbar spine, as seen in Figure 2, then the thoracic joint mobilization will be ineffective, difficult for the therapist to perform and possibly injurious to the client’s low back. To efficiently support and move the client, the therapist’s front hand must securely but comfortably grip the client’s shoulder to support her body weight. Figures 3a and 3b show two ways to accomplish this.

Now that the client has been brought to the initial position of stretch and tension, the therapist can apply the joint mobilization force. This can be done to the rib cage to mobilize the costospinal joints as shown in Figure 4a, or directly to the spine to mobilize the vertebral facet joints as shown in Figure 4b. In each case, the therapist uses the thenar eminence of the heel of the hand to contact and press on the client. The pressure is applied forward and laterally, but also into the client, requiring the rib or vertebra being contacted to mobilize and move a slight bit.

This mobilization force needs to be gentle but firm, and should be applied slowly and evenly. The therapist should *never* apply this pressure in a fast thrusting manner. The hand of the therapist that is holding onto the client’s shoulder in front can also help in the mobilization by gently pulling on the client’s shoulder and trunk,



**FIGURE 4:** Two contacts of the thenar eminence of the treatment hand are shown. In a, the therapist applies the joint mobilization force to the angle of a right rib. In b, the therapist applies the joint mobilization force directly to the left side of the base of the vertebral spinous process.

thereby adding to the flexion and rotation force as the treating hand applies the mobilization force to the client's back. This mobilization stretch is applied for only a second or less and is usually repeated two to four times. The therapist can then move the treating hand to the next level of the rib cage or spine to be mobilized. After mobilizing all twelve levels of the thoracic region, the other side can be mobilized.

Similar to more broadly applied stretches, joint mobilization is more effective when tissue has first been warmed up. For this reason, try this treatment toward the end of the session after the massage and heat have already been done. Thoracic joint mobilization can take time to master and perform proficiently and smoothly. However, if a client's upper and middle back have been resistant to your treatment, perhaps the addition of thoracic joint mobilization to your treatment approach will prove to be the key to helping this client. ■



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