*When setting up and performing low back joint mobilization, it is critically important that the client's spine is torqued as little as possible. Make sure that the client's shoulders and hips are as stacked as possible.*

# joint mobilization of the low back

When addressing the musculoskeletal system, perhaps the number one objective of massage therapy is to restore motion to taut soft tissues. Muscles and tendons, ligaments, joint capsules, and other dense and loose fascial tissues can accumulate fascial adhesions and become inflexible. Muscle tissue can also become tight because of increased muscle contraction tone. In turn, these taut soft tissues result in decreased joint motion. In the spine, decreased motion at a specific joint level, for example the L1-L2 level, is called a "segmental hypomobility."

To improve soft tissue flexibility and joint range of motion, massage therapists can use a combination of bodywork techniques, including massage strokes, heat and stretching. However, there are times when massage and heat followed by broad stretching is not effective—especially when the taut tissue is located at a segmental hypomobility because adjacent segmental levels compensate and become hypermobile by increasing their range of motion. As a result, broad stretches result in further stretching of these hypermobilities instead of the hypomobility.

In these cases, joint mobilization is an extremely effective technique. Joint mobilization can be viewed as being a form of pin and stretch. However, instead of aiming to stretch large muscles, muscle groups and myofascial meridians, the aim of spinal joint mobilization is to stretch the smaller intrinsic muscles, ligaments and other fascial tissues at a specific segmental joint level. This is accomplished by pinning/stabilizing one vertebra while the adjacent vertebra is pre-stretched and then mobilized, thereby stretching the intrinsic soft tissues between them.*

### The Low Back

When performing joint mobilization of the low back, stabilizing the spine can be challenging. It is usually best accomplished by positioning the client so that her body weight stabilizes the upper lumbar spine while the lower lumbar spine or pelvis is mobilized. The client should be placed in a side-lying position. The figures in this article demonstrate the client in a left side-lying position

**Joint mobilization of the spine should not be performed on clients who have a pathologic disc, spinal stenosis, and/or marked degenerative joint disease (osteoarthritis) of the spine at that level, unless approval is given by their physician.*

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

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Figure 1

Figure 2

so that the pelvis and lumbar spinous processes (SPs) can be mobilized into right rotation (note: rotating an SP to the right is technically termed left rotation of a vertebra).

Figure 1 demonstrates the client starting in a left side-lying position near the edge of the table. Figures 2 and 3 show how to place the client's arms. In Figure 2, the client's left (table-side) arm is gently pulled outward to roll her onto the back of her shoulder. Figure 3 shows that her left hand is then placed on the side of her body wall, while her right arm is relaxed and hanging off the side of the table. It is extremely important that the client's upper back is not torqued (twisted), and her shoulders remain as vertically stacked as possible.

To position the client's right lower limb, the therapist flexes the client's hip and knee joints, first with his hands and then with his left (rear) thigh. This is done until the therapist can feel tension in the soft tissues of the client's low back/pelvis with his left hand (Figures 4 and 5). Note that the therapist is facing the cephalad (head) end of the table.

The next step is the most challenging aspect of this joint mobilization procedure: the therapist lifts his left (rear) foot off the floor until he can contact the client's right thigh with his left thigh (Figure 6). You might find it helpful to think of this movement as "pocket to pocket" because the therapist brings his pant pocket to contact the client where her pant pocket would be.

When doing this, the therapist rests his left hand on the client's posterior pelvis, stabilizing her upper trunk by placing his right hand over the hand she has on her body wall. When pressing on the client's hand/body wall, be sure you press in a cephalad direction, not a posterior direction, so that the client's spine is not unnecessarily torqued. The challenge in performing this step is to maintain the stretch/tension in the client's low back/pelvis. It's also critically important that the client's lower spine is not torqued. When done properly, there will be no twist in the client's upper or lower back. Her shoulders will remain essentially stacked, and her hips will also be stacked. You should look for her posterior superior iliac spines (PSISs) and anterior superior iliac spines (ASISs) to be vertically stacked.

The therapist now gently but firmly lets his body weight sink down onto the client's right thigh, bringing her right thigh down off the side of the table. Movement of the thigh pulls on the client's right pelvic bone, creating a stretch tension at her right sacroiliac joint. Movement of her thigh and pelvic bone can be assisted by the therapist's left hand, positioned on the client's pelvis. Once done, for proper balancing and body mechanics, the center of weight of the therapist's upper trunk should be posterior to the client's pelvis and lumbar spine (Figure 7).

**For more information** on joint mobilization of the neck, see the "Body Mechanics" column in the Fall 2007 issue of **mtj**. For more information on joint mobilization of the thoracic region, see the "Body Mechanics" column in the Winter 2008 issue of **mtj**.

*It's critically important to emphasize that joint mobilizations never involve any type of fast thrust. If a fast thrust is done, the therapist is no longer performing a joint mobilization, but rather is performing an osseous adjustment that is only within the scope of practice of chiropractors and osteopaths.*

Figure 3

Figure 4


Figure 5


Figure 6


Figure 7

### The Sacroiliac Joint

To begin with mobilization of the sacroiliac joint, the therapist places his left (treatment) hand on the client's right PSIS so that the PSIS is located between the thenar and hypothenar eminences. In this position, the client's right sacroiliac joint should be stretched and brought to tension.

The therapist performs the actual joint mobilization by using the treatment hand to pull the client's PSIS (pelvic bone) toward his body. This is assisted by simultaneously using his upper trunk body weight to press down on the client's pelvis, stretching and mobilizing the soft tissues across the joint (see Figure 7). The mobilization force should be gentle but firm, and should always be applied slowly and evenly. *The therapist should never apply this pressure in a fast thrusting manner*. Further, the mobilization stretch is held for only one second or less. Once done, you can usually repeat it two to four times.

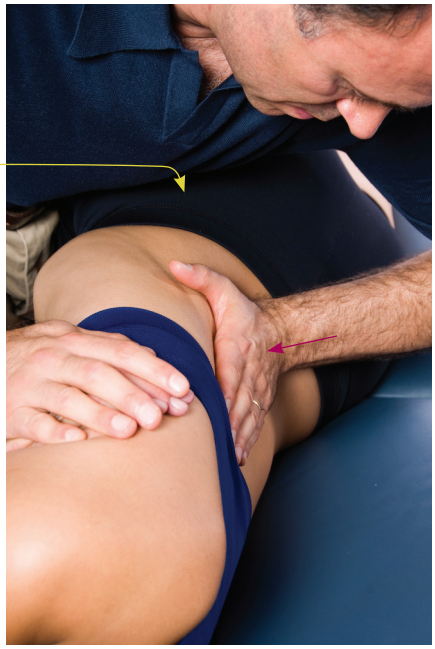


Figure 8

### The Lumbar Spine

After mobilizing the sacroiliac joint, mobilization of the client's lumbar spine can be performed. The treatment hand is moved up on the client's body so that the SP of a lower lumbar vertebra is located between the thenar and hypothenar eminences (Figure 8). The mobilization force is applied to the SP at that segmental level in the same direction and manner that the force for the sacroiliac joint mobilization was done.

As with all stretching techniques, joint mobilization is more effective when performed on tissues that are first warmed up. For this reason, you may find that it's best to do joint mobilization toward the end of the session, after massage and heat have already been done. Joint mobilization of the low back may take time to master and perform smoothly. However, the potential benefits to your clients are tremendous, so I strongly recommend that you add this treatment technique to your "toolbox." ■

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