

Joint Mobilisation

By Dr. Joseph E. Muscolino DC.

The full role that a massage therapist can play in addressing deep intrinsic fascial joint ligaments and joint capsules is still not fully appreciated, writes US-based chiropractic physician and massage therapy educator Dr. Joseph Muscolino. He suggests adding joint mobilisations to your practice and says it is an extremely powerful and effective technique.



Dr. Joseph E. Muscolino has been a massage therapy educator for 25 years. He is author of The Muscle and Bone Palpation Manual, With

Trigger Points, Referral Patterns, and Stretching, and other textbooks. Joseph also teaches continuing professional education courses.

For more information, please visit his website at www.learnmuscles.com.

Orthopedic massage therapy

In recent years, the popularity and acceptance of massage has grown tremendously. Once considered a luxury or treat, massage is now understood to be an integral part of complementary alternative medicine. Indeed, many people turn to their massage therapist for clinical orthopedic massage to remedy their musculoskeletal conditions before consulting their chiropractic or medical physicians. Yet, if the average person is asked what orthopedic massage treats, the answer will likely be tight muscles. Although it is excellent that massage therapists are recognised as muscle therapists, it is unfortunate that the understanding of the scope of massage therapy is often limited to musculature. After all, massage therapy does not just treat tight muscles, it treats all taut soft tissues: muscles, their associated fascial tissues, and joint ligaments and capsules.

Fascia/intrinsic joint ligaments and capsules

The increased focus lately on myofascial meridians has brought muscular fascia to the forefront in many continuing education courses, as well as the curricula of many massage therapy schools. But the full role that a massage therapist can play in addressing deep intrinsic fascial joint ligaments and joint capsules is still not fully appreciated.

Broad stretching

One approach that a massage therapist can take toward loosening these taut joint tissues is stretching. When a body part is stretched at a joint, a stretching force is placed upon the soft tissues located on the "other side" of the joint, including deeper joint tissues. For example, if a body part is moved anteriorly into flexion, the stretching force is placed upon the posterior soft tissues that cross that joint. However, stretching is often of limited value because it is applied over a large area instead of being focused on specific tissues. This is true whether the

stretching technique employed is classic static stretching, dynamic stretching, or even advanced neural inhibition stretches such as proprioceptive neuromuscular facilitation (PNF) or agonist contract (AC) stretching*.

The possible ineffectiveness of a broad stretching force is especially apparent when stretches are applied to the spine. These stretches may be ineffective because taut spinal tissues are often deeper intrinsic muscles and ligaments, such as rotatores, multifidi, intertransversarii, and joint capsules and ligaments. And these taut intrinsic soft tissues are located at a specific segmental joint level, for example the C4-C5 joint, which results in decreased motion at that one joint (this is a type of joint dysfunction known as a hypomobility).

But if the neck is stretched in this example, the entire cervical spine will be stretched, diluting the stretching force across all the cervical spinal joints. Similarly, any stretch of the mid to upper back will be diluted across the entire thoracic spine; and any stretch of the low back will be diluted across the entire lumbosacral region. Diluting the stretch often makes it ineffective at stretching the taut intrinsic tissues at any one segmental joint level. This problem is compounded by the fact that a hypomobile segmental joint is often surrounded by hypermobile joints that increase their motion to compensate for the lost motion of the hypomobile segment. Now, when a broad stretch is applied to this region, not only is the stretch diluted, but the adjacent compensatory hypermobile segments absorb all of the stretch, allowing the hypomobile joint to remain taut.

Joint mobilisation stretching

Therefore, to adequately alleviate a segmental hypomobility, in other words to mobilise a joint, the stretching force must be focused and directed at that specific joint level. The only stretching technique that can accomplish this is known as joint mobilisation. Joint mobilisation of the spine is not often thought of as stretching, but in essence it is. More specifically, joint

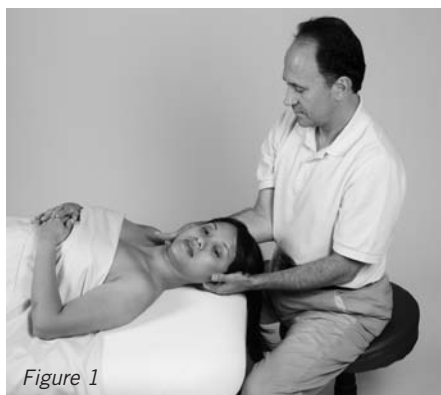


Figure 1

Joint mobilisation and joint manipulation

There is often confusion regarding the terms joint mobilisation and joint manipulation. Part of the confusion arises because different people and different entities and organisations define each of these terms differently. Technically and literally, a joint mobilisation is a type of joint manipulation. It is a joint manipulation in the sense that the joint is manipulated (moved by hand; the word root "manus" is Latin for hand). However, it is a low velocity joint manipulation that is performed in a slow and gentle manner, with no fast thrusting motion. A high velocity joint manipulation uses a fast thrust and is also referred to as an osseous adjustment or simply an adjustment. Osseous adjustments are performed by chiropractors and osteopaths. Regardless of how you define these terms, what is most important to realise is that joint mobilisations performed by massage therapists should never involve a fast thrust!

mobilisation can be considered to be a type of stretching technique known as pin and stretch. What sets joint mobilisation apart from pin and stretch, as well as all other stretching techniques, is the precision with which it is applied.

Joint mobilisation of the spine involves pinning (stabilising) one vertebra, and then introducing a stretch that causes the adjacent vertebra to move relative to the pinned one. This is done by the therapist's hands.

applied is crucially important. Following are the steps that should be followed, using the C4-C5 joint as the hypomobile joint being mobilised. In this example, the joint is being mobilised into right lateral flexion (stretching the intrinsic soft tissues on the left side of the joint).

Starting position

The client is supine and the therapist is seated at the head of the table. For optimal body mechanics, the therapist is seated slightly toward the right side (Figure 1).

Support the head

The client's head and neck are passively rotated to the left (approximately 30-45 degrees), and the client's head is cradled and supported in the therapist's left hand (see Figure 1).

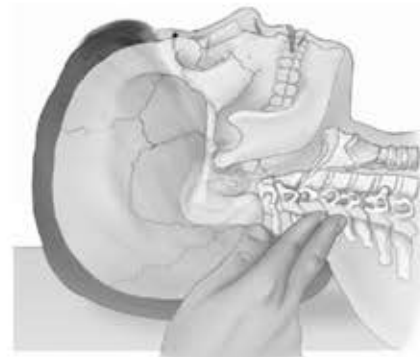


Figure 2

Place the pin contact

The therapist's right hand contact is placed on the articular process (facet) of C5. This placement is extremely important. The articular process is located between the superior and inferior articular processes (facets).



Figure 3a



Figure 3b



Figure 3c

respectively). For the most part, choosing one contact instead of another is a matter of therapist and client comfort. Generally, the radial side of the index finger contact is the most powerful, but the finger pads are the most comfortable for the client.

Bring the joint to tension

The C4-C5 joint is now brought to tension by the therapist's hands.

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