

# Massage Today®

## MASSAGE THERAPY AND JOINT MOBILIZATION

BY DR. JOE MUSCOLINO

Clinical orthopedic massage is done with the intent toward healing a specific musculoskeletal condition. If you ask most orthopedic massage therapists what their intent and goal is when working on a client, they will usually describe a muscle or group of muscles that they want to manipulate and loosen.

Certainly, tight musculature is likely one of the most common, if not the most common, presenting complaint of clients. However, with the increased awareness of fascial tissues (both the understanding of fascial adhesions and the concept of fascial contraction, as well as the understanding of the fascial links between muscles of a myofascial meridian), some of the focus of massage therapy is being shifted away from the muscles themselves toward fascia. By encompassing the fascial tissues into the treatment paradigm, massage therapists can broaden their domain to define themselves not only as muscle therapists, but rather as myofascial therapists.

Defining the scope of massage therapy in this way is crucially important. It is not just inflexible muscles that can de-

crease mobility, limit a client's function, and cause discomfort and pain. All inflexible taut soft tissues can do this, whether they are muscles, tendons, broad fascial planes between and around musculature, ligaments or even joint capsules. In this context, the role of massage therapy can be understood to manipulate all soft tissues.

### JOINT CAPSULES AND JOINT MANIPULATION

Massage therapists can and should pay attention to the flexibility/tautness of all soft tissues, including joint capsules and other deeply seated intrinsic ligaments. These deeper fascial structures connect and provide stability to the bones of a joint. However, if joint capsules become taut, often due to the accumulation of fascial adhesions over time, the joint will lose its mobility. The province of loosening joint capsules is usually left to chiropractic and osteopathic joint manipulation. With the use of high velocity, short lever arm manipulation (a fast thrust that is implemented over a short range of motion), called an adjustment, chiropractors and osteopaths stretch

joint capsules, thereby increasing the joint's range of motion, and therefore the client's mobility.

### MUSCLES AND JOINTS - CHICKEN AND EGG

Tight muscles and taut joint capsules can be looked at as the proverbial chicken and egg. If tight muscles are loosened with massage, the remaining taut joint capsules will still decrease joint motion; and this decreased motion will eventually cause the muscles to tighten again. If, on the other hand, the client has a chiropractic adjustment to loosen the joint capsule, but the muscles are not loosened, these tight muscles will decrease the joint's range of motion, ultimately leading to the joint capsule becoming taut again. For this reason, it is critically important that muscles and joints are both addressed. This is why chiropractors and massage therapists so often work together.

### CHIROPRACTIC AND MASSAGE

When chiropractors and massage therapists practice together, the order in which their

work is performed can matter. Many chiropractors choose to have the massage therapist work on the patient/client after the adjustment is done. However, this decision is often motivated more by ease of schedule and patient flow than by optimal treatment protocol. Given that an adjustment takes only a couple of minutes, but massage is performed for anywhere from 15 minutes to an hour, it is often easier for the chiropractor to adjust all of his/her patients and then leave them for the massage therapists to work on.

However, for most clients, it is more beneficial to have the massage done first. An adjustment can be performed more gently when the client's musculature and other fascial tissues have already been loosened. The more gentle the adjustment, the less likely spasming will occur and the more comfortable it will be. Further, if the muscles and other fascial tissues are loosened first, the joint will release more fully, resulting in a more successful adjustment. For this reason, it is usually preferable to have the adjustment follow the massage, not precede it. When partnering

with a chiropractor, it is valuable to discuss these ideas and determine how to best work for the benefit of your patients/clients.

## MASSAGE THERAPY JOINT MOBILIZATION

Massage therapists who do not partner with a chiropractor can still do valuable work to address taut joint capsules through joint mobilization. Joint mobilization is performed by bringing a joint slowly through a small and precise range of motion. Joint mobilization is similar to chiropractic manipulation in that it is performed through a short range of motion and focuses on loosening deeper intrinsic ligaments and joint capsules. However, the crucial difference between a chiropractic joint manipulation/adjustment and joint mobilization is that joint mobilization is performed slowly and never involves a fast thrust.

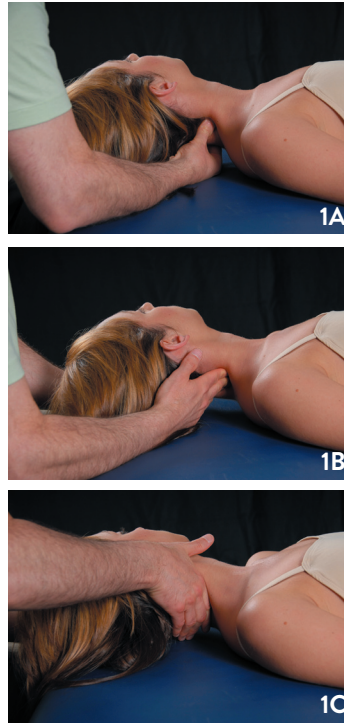
## JOINT MOBILIZATION OF THE NECK

To best understand joint mobilization, let's look at joint mobilization of the cervical spine into right lateral flexion at the C5-6 joint level. In essence, a joint mobilization can be looked at as a type of pin and stretch. One vertebra must be pinned while the adjacent vertebra is moved/stretched relative to it.

Although joint mobilization can be viewed as a type of stretching, specifically a type of pin and stretch technique, there is a critical difference between joint mobilization and other

stretching techniques. All other stretching techniques, whether they are classic static stretching, dynamic stretching, or even advanced neurologic inhibition stretching techniques such as proprioceptive neuromuscular facilitation (PNF) stretching or agonist contract (AC) stretching, involve bringing the joint through a large range of motion.

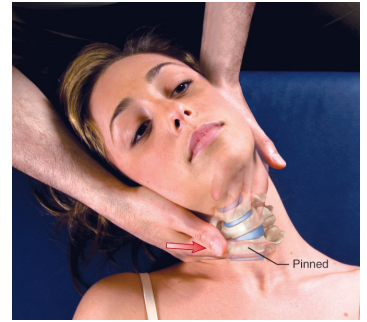
Joint mobilization, on the other hand, involves a small range of motion that is focused at a specific segmental joint level. Let's look at the neck to understand the difference. If the entire neck is stretched into right lateral flexion, the stretch will be spread over the left side of the neck. However, because the stretch is applied across the entire left side of the neck, a taut (hypomobile) joint capsule at one level of the neck may not be stretched because other (hypermobile) levels of the neck compensate by stretching more. Therefore, a hypomobile joint may avoid the stretch because adjacent hypermobile joints compensate. For this reason, as valuable as stretching is as a treatment tool, it can be ineffective at addressing segmental hypomobile joints. Joint mobilization technique is critically important because it is the only technique available to massage therapists that can restore motion to specific segmental hypomobilities. Note: Before employing joint mobilization technique, check with your licensing or certification body to make sure that it is within the scope of your practice.



**Figure 1.** A, Thumb contact. B, Finger pad contact. C, Radial side of the index finger contact. "Joint Mobilization of the Neck" - Fall 2007), Figures 2, 3, and 4 respectively.

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In Figure 1, we see that the therapist uses one hand to contact the lower vertebra (C6). Three contact options are shown: the thumb, finger pads, and the radial side of the index finger. In each case, the contact is made on the facet (articular process) of the vertebra, approximately halfway between the spinous process and the transverse process (Figure 2). The facets form a broad smooth surface that is a comfortable contact for the client (contacting the transverse processes would be extremely uncomfortable for the client). The therapist's other hand must hold and move the client's head. As a rule, this hand is placed on the other side of the head from



**Figure 2.** The cervical spinal facets provide an excellent contact for the therapist when performing joint mobilization. Reprinted with permission from Dr. Muscolino's 2012 Lippincott, Williams & Wilkins book, "Advanced Treatment Techniques for the Manual Therapist: Neck," Figure in Box 10-3, page 209).

the hand that is contacting the vertebra. It must be placed under the center of weight of the client's head so that the head is easily balanced in the hand. Care must be taken not to cup over the client's ear or press on their mandible. Now, securely pinning the vertebra below (C6), bring the client's head and upper cervical spine (C1-C5) around the pinned vertebra until the end of passive range of motion is reached and tension is felt at the C5-6 joint.

Now the actual joint mobilization can be performed in one of three ways:

1. The facet of C6 can be pushed farther while the client's head and upper neck are securely held.
2. The client's head and upper neck can be moved farther while C6 is securely held.
3. Both C6 and the client's head and upper neck can be simultaneously moved relative to each other.

The position of joint mobilization is held for less than one second and then released. This procedure is usually repeated a few times at that level and then


performed at the other joint levels of the neck. After mobilizing into right lateral flexion, left lateral flexion is done, as well as other ranges of motion bilaterally. The result is that the entire neck is mobilized in all ranges of motion.

Effective and thorough clinical orthopedic work requires increasing flexibility of not only muscles and superficial/intermediate fascial tissues, but also the deeper intrinsic ligaments

and capsules of joints.

Massage strokes are ideal for remedying tightness in the superficial and intermediate tissues. Supplementing this, stretching can be invaluable in increasing flexibility of most soft tissues.

However, to truly address tautness/adhesions in the deepest fascial structures of the joints, intrinsic ligaments and joint capsules, joints manipulation is necessary.

Although joint mobilization technique can take time and practice to learn well, the benefit to your clients and to your practice makes the effort well worthwhile. 

**DR. MUSCOLINO** is a licensed chiropractic physician and teaches anatomy, physiology, and nutrition at Purchase College, State University of New York (SUNY). He also taught kinesiology and musculoskeletal and visceral anatomy, physiol-

ogy, and pathology courses at the Connecticut Center for Massage Therapy (CCMT) from 1986 - 2010. Dr. Muscolino is also an approved provider by the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB) for continuing education (CE) credit for massage therapists and bodyworkers and runs numerous advanced study workshops, including deep tissue, advanced stretching, joint mobilization, and palpation workshops, as well as cadaver labs.