

Trigger Point Treatment: Ice and Stretch

Rational for Icing

When properly applied, icing causes a sudden drop in skin temperature that creates a continuous alarm signal to the spinal cord, which has an inhibitory effect on local pain signals, preventing them from reaching the brain. This inhibits the protective spasming of the muscle, allowing the trigger points to be stretched.¹

Preparation

WHAT YOU NEED - You will need ice in cubes or a paper cup, a towel, and a moist heating pad. (I have used a microwaved moist towel in a pinch.)

WARM PATIENT - Patient should be comfortably warm... if they are not, apply a heating pack to their abdomen or other part of the body to warm them so they can relax during the technique.

RANGE OF MOTION - It is a good idea to show the patient how far they can move before and after the treatment, so they can appreciate the change, and follow-up with home stretching to keep their gains.

SUPPORT - The patient should be well supported and should be encouraged to relax generally and to especially relax the muscle being stretched.

Basic Technique

POSITION - Patient is positioned so one end of muscle cannot move and the muscle is extended to its full length but not into a stretch. The patient should not feel pain. For example, the patient could lie face up for a side neck stretch so the body weight keeps the patient's shoulder down.

STROKE ICE - Ice is stroked in parallel lines along the muscle in the direction of pain referral, and the entire pain referral area is also stroked. This is in the same pattern that Dr. Travell would apply the spray. (It is important to cover all the pain pattern, including any pain the patient might be experiencing with the stretch that might be unrelated to the muscle being treated, but may be stressed in the process.)

SLOWLY - The ice should be moved at a rate of approximately 4 inches/sec (10 cm/sec), but this can be sped up if the patient experiences too much cold, and slowed if they need more cold (e.g. through the hair).

DRY - Skin should be dried after each application as dampness reduces the distraction to the nervous system and also cools the muscle tissues excessively.

TAKE OUT SLACK - After the ice is applied and the muscle begins to relax, the slack is taken up by the practitioner increasing the stretch.

MAX 3 TIMES - Tissues should not be cooled beneath the skin, so Dr. Travell recommends only going over an area of skin a maximum of three times with the ice before re-warming the area. (I often will repeat the procedure up to 6 times if I am still getting improvement and the skin does not feel too cold to the touch.)

RE-WARM AREA - After the stretch has been performed with 2-3 sets of strokes with ice, the muscle is slowly returned to its resting length, and re-warmed with a hot pack.

RANGE OF MOTION - The patient is then directed to bring the muscle through its range of motion three times, so they shorten it completely and then lengthen it completely. This step is important in resetting the muscles resting length, and getting the message to the brain. This is also the same motion to be used for a home stretching program.

Tips and Tricks for Ice and Stretch

BREATHING - This can be used by itself or to augment any other stretching technique. When a person inhales, they partially contract all the muscles in their body, and when they exhale, they partially relax them all. So having patients take measured breaths, and exhale with the stretch, can help them to relax as you take out the slack.

PAIN - This is NOT a technique in which you want pain. It is actually counterproductive, because it sends a message to the brain that there is injury in the muscle, and this will create further protective spasming. Whenever the patient encounters pain, either stroke it with ice immediately — it will often go away — or back off from the stretch.

COMMUNICATION - Another important piece to this treatment is communication. It is important for the patient to tell you about anything that hurts or feels tight, because this is a message going to the brain that you want to override. Make sure you cover the specific spot where they are hurting, and even in the pattern that they are hurting.

POST ISOMETRIC RELAXATION (PIR) - Ice and stretch can be augmented by doing PIR stretching after the ice is applied. In this stretching technique, the patient is instructed to use the muscle being stretched to push gently into the practitioner's hand/arm. The practitioner resists the contraction without allowing movement for a few seconds. Then the patient relaxes, and the practitioner slowly stretches the muscle to its new length. It is even more effective if the patient inhales as they push against the practitioner, and then exhales as they relax the muscle. For example, if you were stretching someone's hamstring (muscles on back of thigh) you would have the patient lie on their back and bring their leg up as far as possible with their knee straight. Then you would put your shoulder against their foot and have them push into you, but not allow them to move you. When they stopped pushing, you would slowly push their foot further back until you felt the muscle stop you.

CONTRACT ANTAGONIST - Often, the patient can actively help stretch the muscle by contracting the antagonists or actively using their "opposite" muscles to increase the stretch. For example, when stretching the muscles next to the spine called the paraspinal muscles, the patient could actively round the back to get a better stretch.

DEEP STROKING MASSAGE - Occasionally, you might want to add some deep stroking massage to ice and stretch, or even use ice stroking to make the massage more tolerable. (Refer to the trigger point treatment page at www.musclepainsolutions.com)

HOME STRETCHING - This needs to be done gently... no pain. The stretches do not have to be long, but they need to be frequent —hourly — because this is how you change the patterns that the brain has set up for that muscle. See www.musclepainsolutions.com for stretching ideas.

OTHER APPLICATIONS FOR ICE - Icing in this manner can be used to affect the nervous system in a similar manner for other problems as well. One can inhibit the pain, and often decrease the resultant swelling if ice is applied in this manner soon after new injuries occur, including burns, sprains, strains, stings, etc. This application of ice can help with other types of treatments that may be painful such as Graston, deep tissue massage, etc.

¹Simons MD, David, Janet Travell MD, and Lois Simons PT. Travell and Simons' Myofascial Pain and Dysfunction: The Trigger Point Manual. 2 vols. 2nd Ed. Baltimore, MD: Williams and Wilkins, 1999.