

~The NeuroStretch™ PROM Technique ~

Provides optimal joint extension without causing a stretch reflex.

- **What is the NeuroStretch™ Technique?**

NeuroStretch™ is a modified and alternative technique to Passive Range of Motion (PROM) which should not initiate a stretch reflex. The technique relaxes the muscles and improves the PROM through stimulating specific point(s) on the human body. This technique is recommended for patients with abnormal tone or spasticity.

- **What and where are NeuroStretch™ points?**

NeuroStretch™ points are soft spots located near the insertion of the muscle tendons around the joint(s). The points vary in size depending on the size of the joint, from the size of a quarter at the hip to the size of a shirt button at the wrist. NeuroStretch™ points are very easy to locate on most individuals.

- **How to apply the NeuroStretch™ Technique**

1. Follow the NeuroStretch™ Points Chart to locate the appropriate NeuroStretch™ point(s).
2. Apply gentle pressure and perform circular movements with one or two fingers on both sides of the joint. You might use one hand or two hands for point stimulation depending on the location and size of the joint.
3. The stimulation **must** be provided continuously for a **full 90 seconds** at each joint.
4. The joint should be maintained in a relaxed or contracted position until the 90-seconds of NeuroStretch™ stimulation has been completed.
5. Start from the proximal joint (closest to the body) on the affected limb, and work to the targeted joint. In the upper limb, you usually start at the shoulder point, then the elbow, and finally the wrist and hand. In the lower limb, start from the hip, to the knee and finally the ankle.
6. After stimulation, slowly and gently bring the joint to the point of significant resistance to stretch (sub-maximal stretch). **DO NOT OVERSTRETCH**. You may need to continue joint stimulation for a few more seconds beyond 90 seconds until the optimal comfortable stretch is achieved.
7. The technique is most effective if the patient can relax as much as possible. Always explain the procedure to the patient before starting. Continue communicating with the patient during NeuroStretch™ PROM application, reassuring the patient that NeuroStretch™ results in a pleasant sensation in the affected joint(s) post-stretch.
8. Hold the joint in the extended position for one or two minutes or until you feel the resistance to stretch dissipate.
9. Apply an orthotic device if prescribed after the NeuroStretch™ PROM is completed. If no orthotic is used, position the joint in a relaxed extended position.

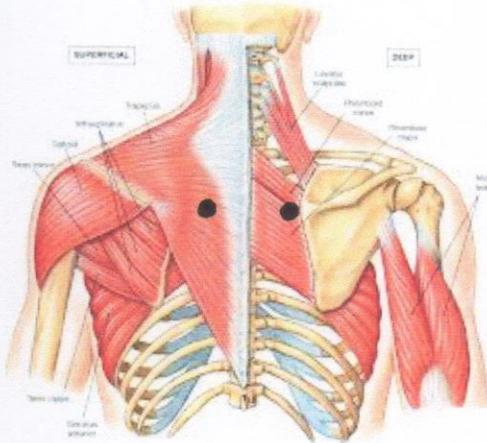
- **Indications**

The NeuroStretch™ Technique is applied to provide optimal stretch to a joint affected by neuro-contractions where abnormal tone or spasticity are present. The contracture may be due to immobilization or neurological dysfunction (e.g. CVA, Parkinson's disease, Multiple Sclerosis, Cerebral Palsy, etc.). It is not indicated to be used for fixed contractures where the joint is ankylosed.

- **Contraindications**

NeuroStretch™ should not be applied over hot or inflamed joints, endurated skin, and soft tissue lesions or in proximity to open wounds. NeuroStretch™ should be immediately discontinued if pain or discomfort is associated with the application of NeuroStretch™ Passive Range of Motion.

Cervical NeuroStretch™ Points

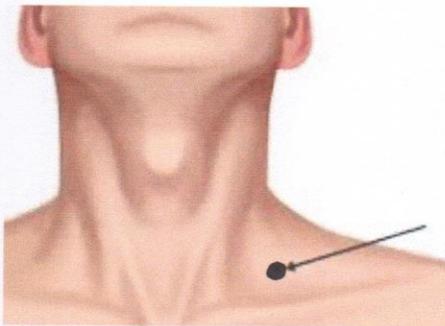


Work proximal to distal from the middle of the body.

Pull the shoulders back.

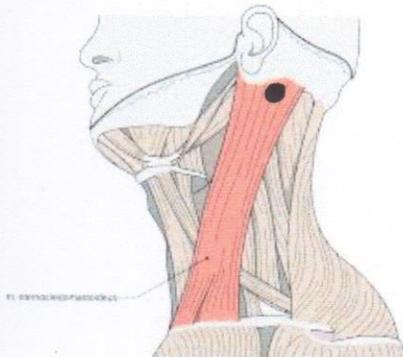
Initial points are just under and in from the superior medial margin of the scapula.

Use thumbs in a circular motion for 90 seconds to release the trapezius muscles.



Second set of points are in the Supraclavicular fossa.

Use the fingertips and in a circular motion simultaneously move the skin on both sides of the neck for 90 seconds.



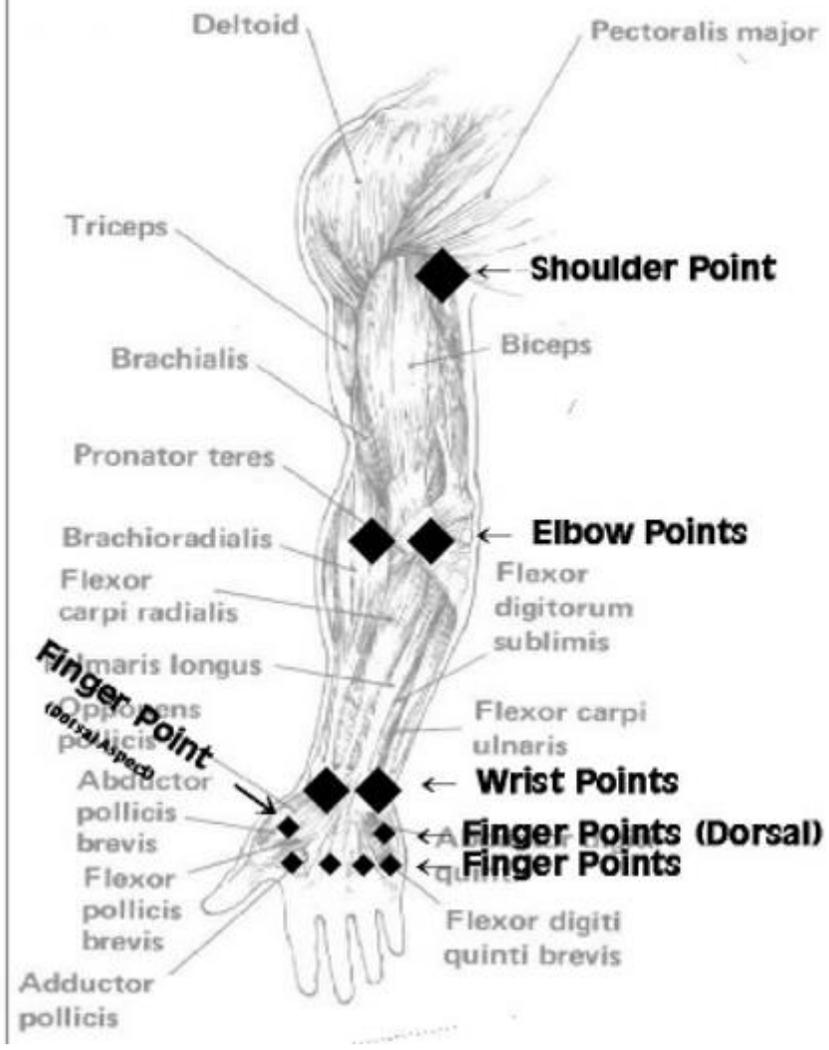
Palpate the insertion point of the sternocleidomastoid muscle **ON THE ELONGATED** side of the head just below the base of the skull. This is the NS point.

Use one hand to cradle the head so that you are supporting the head and neck.

Use the other hand to move the skin at the NS point.

Switch to the shortened side of the neck and repeat.

Upper Extremity NeuroStretch™ Points



Lower Extremity NeuroStretch™ Points

