Fact Sheet | Trigger Points

What are Trigger Points?

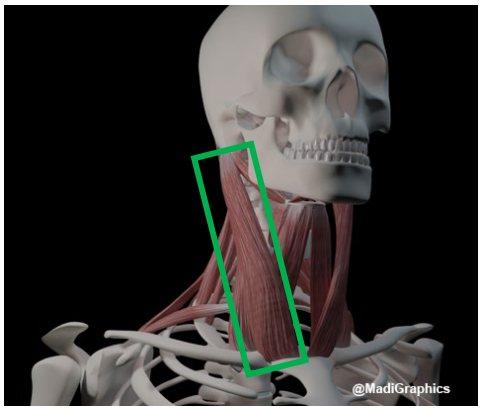
The "*myofascia*" is the tissue between the skin and the muscles in the body. Myofascial trigger points are parts of this tissue that become painful with touch, stretch, or pressure. It is especially common to see trigger points after a whiplash injury. This is which is an injury to the head and neck due to a rapid and forceful back and forth motion of the head and neck. It is also common for trigger points to form in the neck after a mild traumatic brain injury (mTBI) or concussion because the muscles become stiffer as they try to protect the head and spine after the injury.

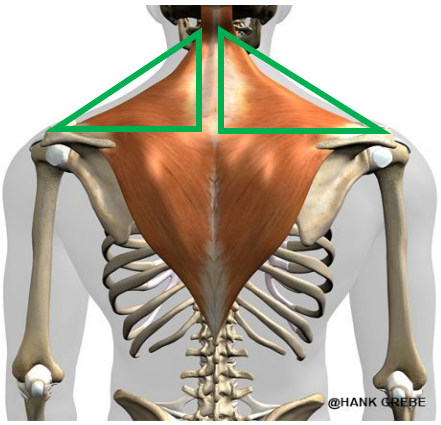
Trigger points cause the muscles to work in an imbalanced way, which can produce headaches. Finding the underlying cause of the headaches is important to address the issue and resolve the symptoms. Therefore, it is common to assess the neck during an evaluation after a mild traumatic brain injury (mTBI) or concussion to either rule in or rule out a cervicogenic cause if headaches are a primary problem.

Headaches that come from the neck are called "*cervicogenic headaches*". Typical symptoms of cervicogenic headaches include reduced mobility in the neck, tenderness, postural changes, pain on one side, shoulder instability, and changes in breathing patterns. Postural changes include forward head posture and scapular elevation and forward rotation and are typically due to weakness in certain muscles over-activation of other muscles.

What do trigger points feel like?

There are certain muscles in the neck that are more prone to trigger points after a mild traumatic brain injury (mTBI) or concussion, and these muscles can refer pain to other parts of the body, such as the head.





Sternocleidomastoid (SCM): A muscle in the front of the neck that can become tight after a mTBI or concussion. Based upon the location of the trigger point in the muscle, it often refers pain either around the eye, across the forehead, or on the back of the head

Upper Trapezius: When trigger points form in this muscle, patients often complain of a "ram's horn" pattern of pain. The pain will form from in the neck, move up behind the ear, move over the top of the ear, and then down in front of the ear, forming the shape of a "ram's horn

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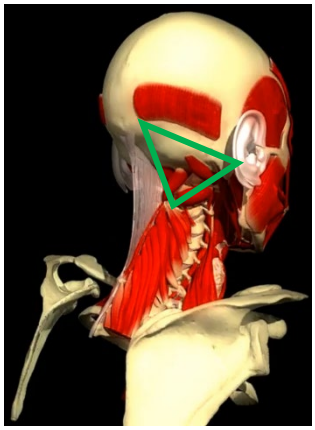
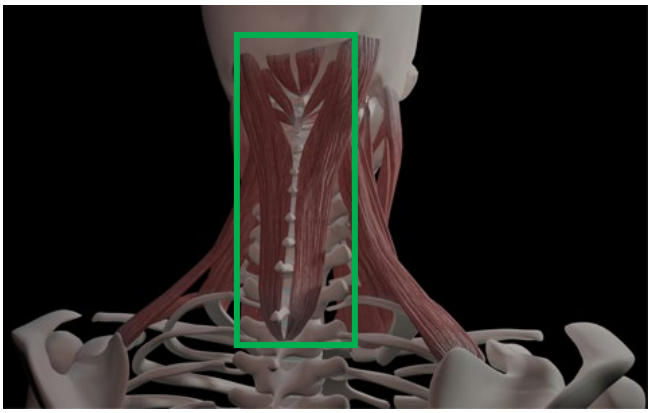


Suboccipital triangle: A group of four muscles on both sides at the base of the skull on the back of the head. When a trigger point forms in these muscles, it is common to have pain on both sides of the head on the temporal bones.



Semispinalis capitis: A muscle in the back of the neck. It is common to see trigger points in this muscle especially after a whiplash-related injury.

What can be done to improve symptoms?

There are many different interventions available to treat trigger points. Stretching exercises can be performed to improve the length of the muscles and decrease the tightness of them. Strengthening exercises can be performed for weak muscles. This helps improve the muscle imbalance that is seen with trigger points.

Research shows that sustained deep pressure helps release trigger points. This can be done in a variety of ways. First, soft tissue mobilization can be done by a PT to loosen the restrictions in the muscle tissue. There are also ways to perform self-soft tissue mobilization with tools at home such as a tennis ball. Another option for treatment is dry needling which is performed by a physical therapist certified in Dry Needling and utilized when manual therapy is not enough.

It is common to see a specific pattern of neck muscle imbalance. Below is a list of muscles that commonly fall into these patterns. Please always consult with your healthcare provider for further information and as it relates to your plan of care.

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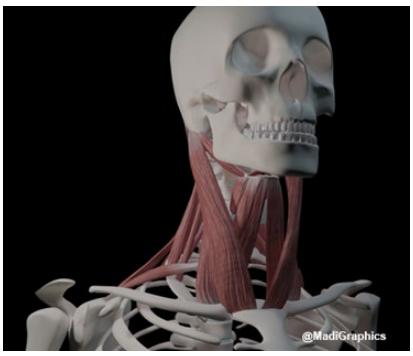

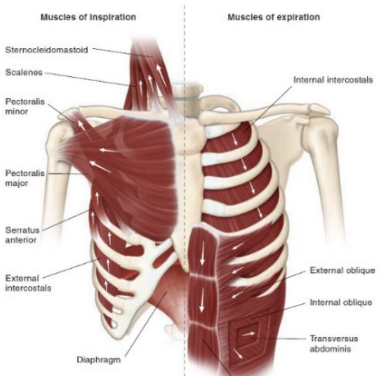

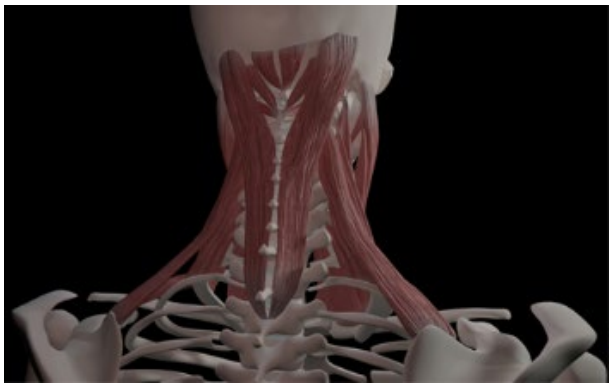

Common tight muscles:

- Sternocleidomastoid (SCM)
- Levator Scapulae
- Scalenes
- Upper Trapezius
- Splenius Capitis
- Semispinalis Capitis
- Suboccipital Triangle
- Pectoralis Major
- Pectoralis Minor

Common weak muscles:

- Deep Neck Flexors
- Serratus Anterior
- Rhomboid Major
- Rhomboid Minor
- Middle Trapezius
- Lower Trapezius

What do the neck exercises look like?

Some exercises involve stretching, to improve the extensibility of the overly-stimulated muscles, or strengthening, to improve the strength of the inhibited muscles to improve the muscle imbalance commonly seen with the formation of trigger points. Other interventions involve providing deep pressure to the trigger point to help with its release.

If you think *Trigger Points* may be contributing to your symptoms, please talk to your healthcare provider to determine next steps. If you are already in the care of a physical therapist, they may assist in identifying an appropriate treatment plan for your specific needs.

Additional Comments:

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