

TARGETING THE MASSETER and TEMPORAL MUSCLES

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Often the masseter and temporal muscles are overlooked as the source of discomfort, behavioral problems and in decline of performance. If you have ever experienced tooth, mouth or TMJ problems, (the temporomandibular joint where the skull meets the jaw) you can easily relate to how this discomfort affects your mood and comfort.

It is really important that you address the masseter muscle as well as the temporal muscles since they both function to move the jaw.

Problems which may arise from dysfunction:

If either or both of these muscles are sensitive, the horse is reluctant to chew on that side especially when combined with any dental issues. The horse may find the mouth uncomfortable to open on the side with the issues since the muscle fibers here may be shortened or bracing. Horses that grind their teeth may also have sensitivity here.

Issues here can be associated with dental problems, biting issues, injuries to the skull, skull conformation or deformities and nerve impairment. When evaluating these muscles, note the symmetry of muscle development of both sides. If possible, check to see that coronoid processes are equal distance from the temporal fossa of the skull. These are the structures you can feel move as the horse chews if you rest your fingers lightly on the temporal muscles. (See figure 1)

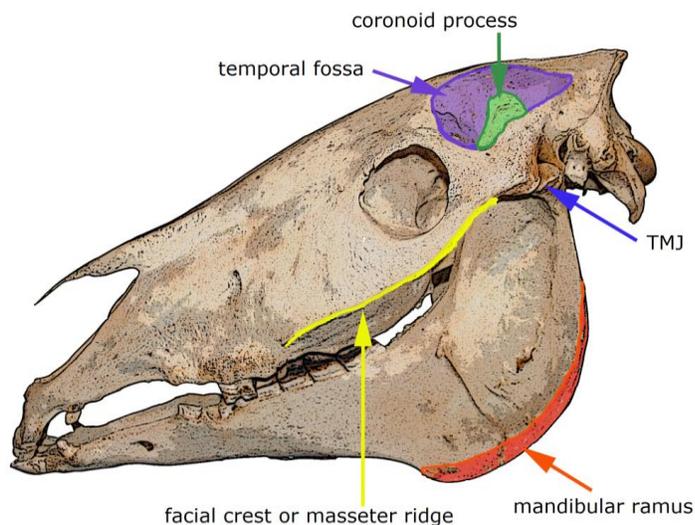


Fig. 1: Landmarks of the Skull

Targeting the Masseter Muscles:

Stand at the head off to one side and point your toes towards the tail. **Hand curry** as if you had a soft curry in your hand on the **masseter** in large circles beginning with light pressure and increase to a light/medium pressure. (See figure 2)

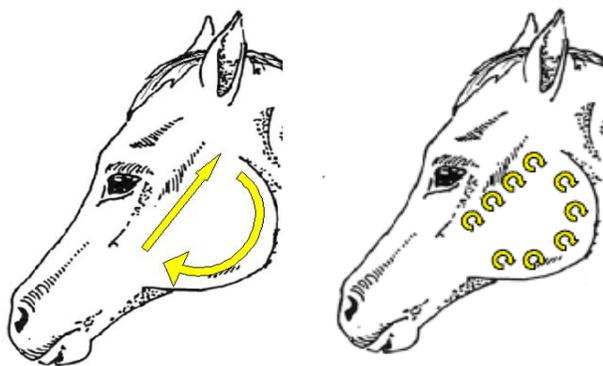


Fig. 2: Working the Masseter. Large circles followed by smaller circles

This is a distinct stroke using your fingertips directly ventral (under) the facial crest (the long ridge below the eye) working caudally (rearward) towards the edge of the jaw. As your hand returns to start on the cranial start of the facial crest (the front edge closest to you), make sure you lighten up as you cross the

portion of the jaw that covers the cheek teeth to avoid pressing against any edges of the teeth. Pay particular attention underneath the **facial crest** and above the edge of **ramus of the mandible** as you make these circles.

Any areas of tension should be approached by targeting the area with **digital or fingertip/pad compression** (technique explained below). Areas with issues are using found under (ventral) to the **facial crest** or dorsal to the **mandibular ramus** as illustrated. Direct pressure (**DP**) and cross fiber friction (**CFF**) are kept to a light to progressive medium pressure customized for the horse's preferred weight of touch.

Fingertip/pad compression (digital compression):

This stroke is very effective on areas where conventional compression when using your palm or fist is difficult when the area is too small or too close to bone. Curl your fingers and let your hand rest on the horse. Make small circular motions or just press with your finger pads (*see figure 3*). Try to stay on top of the line of fiber or tendon you are addressing. Don't flick it back and forth like a guitar string. This would be a transverse move and a different one altogether.



Fig 3: Digital or fingertip compress shown

Masseter Facts

ORIGIN: This muscle begins at the facial crest and zygomatic arch.

INSERTION: It terminates on the lateral surface of the ramus of the mandible.

FUNCTION: When this muscle is active it closes the jaw. Acting in concert with the other muscles of mastication, the masseters provide power for the grinding action of the cheek teeth. When the horse is grazing the incisors are brought together by the combined action of both masseters (and other muscles such as the temporalis).

STRUCTURE: This muscle consists of two layers. The dorsal portion is covered by a strong aponeurosis.

INNERVATION: Mandibular nerve

REACTION TO TOUCH: The horse will pull their head away with any pressure. Be very careful with work on these muscles if you suspect the horse has points on the premolar and molar arcades (cheek teeth) to avoid pressing the cheek tissue against any of the sharp edges.

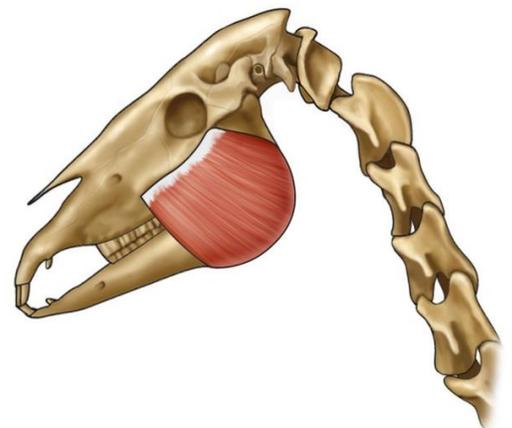


Fig. 4: Masseter

Targeting the Temporal Muscles:

Stand at the head off to one side and point your toes towards the tail. Hold the halter with the inside hand or by resting it gently on the bridge of the nose with your thumb cradling the cavesson piece. Lay your outside thumb on the forehead. Keep your fingers still. **Stroke** the **temporal muscle** above the eye, beginning with light pressure from the center of the head working outward in a cross fiber manner. Increase the pressure if invited. (See figure 5).



Fig. 5: Body Position



Temporal Thumb

Temporal Facts

ORIGIN: This muscle arises from the temporal fossa and medial surface of zygomatic arch.

INSERTION: As it crosses medially and ventrally to the zygomatic arch, it inserts on the coronoid process of the mandible.

FUNCTION: When the muscle is active, it closes the jaw.

STRUCTURE: The muscle is covered by an aponeurosis. The lateral part of the temporal muscle blends with the medial part of the masseter.

INNERVATION: Mandibular nerve.

REACTION: Similar to the masseter. The horse will raise or pull their head away when touched. Check to make sure they are symmetrical in regards to size, tone and texture.

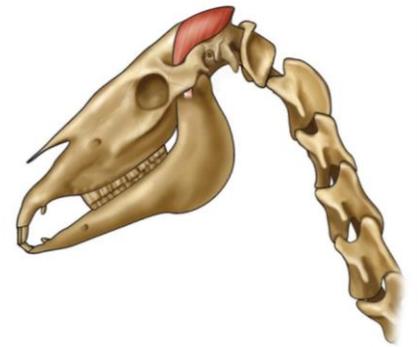
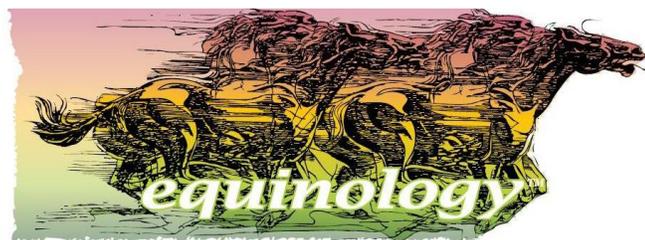


Fig. 6: Temporalis



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