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Lecture title: Myology / muscle of head

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D.Mentalis muscle: The **mentalis muscle** is one of the **muscles of facial expression** located on the **chin** area of the dog. Though small, it plays a role in the **movement of the lower lip and chin skin**, and contributes to expressions and minor movements of the mouth.

Anatomy of Mentalis muscle in the dog:

Location

Situated on the **rostral part of the mandible**, near the **incisive part of the lower jaw**.

Origin:

Rostral surface of the mandible

Insertion:

Skin of the chin and lower lip.

Function:

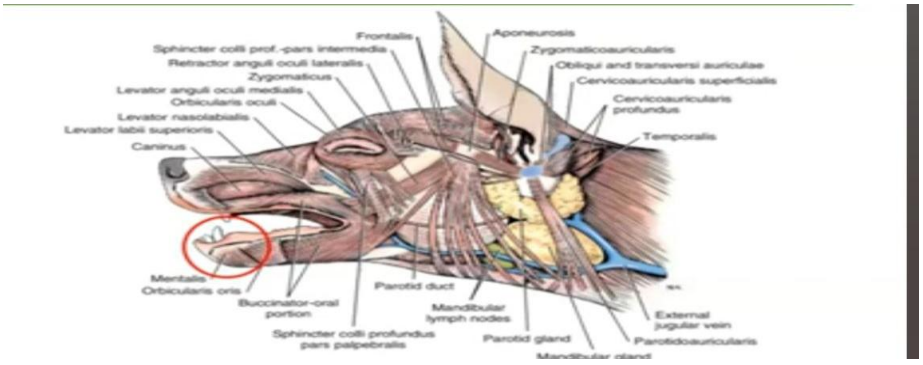
Raises and wrinkles the skin of the chin; **protrudes or elevates the lower lip**.

Innervation:

Facial nerve (Cranial Nerve VII).

Blood supply:

Branches from the **facial artery**.



E.Maxillonasolabialis Muscle: The maxillonasolabialis muscle (also called the levator nasolabialis) is a facial muscle in the dog that combines the action of lifting the upper lip and the lateral wall of the nose. It plays a role in sniffing, facial expression, and slight dilation of the nostrils.

Anatomy of the Maxillonasolabialis Muscle in the dog:

Location

Lies on the **lateral surface of the face**, between the nose and upper lip.

Origin

From the **frontal process of the maxilla** and adjacent facial bones.

Insertion: divides in to two parts:

1. **Lateral part**: into the **upper lip** (blends with **levator labii superioris**).
2. **Medial part**: into the **lateral aspect of the nostril**.

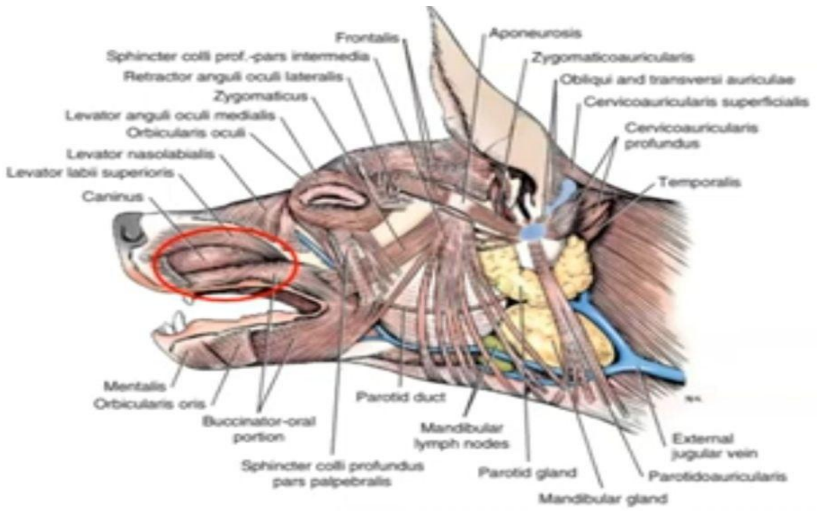
Function

Elevates the upper lip.

Innervation

Facial nerve (Cranial Nerve VII).

Blood supply: Branch of the facial artery



❖ Muscles of Forehead:

Frontalis muscle : In dogs, the **frontalis muscle** is part of the **facial muscles group**, but it is not as well-developed or functionally distinct as in humans. It plays a minor role in **moving the skin of the forehead.**

Anatomy of the forehead muscle in the dog:

Location : Forehead region, overlying the frontal bone

Origin : Frontal bone, near the midline and base of the ears

insertion: skin of forehead and upper eyelid.

Function - Moves the **skin of the forehead**

1. Slightly **elevates the brows** and **base of the ears**
2. Assists in **facial expression**

Innervation : Facial nerve (**Cranial Nerve VII**)

Blood Supply : Branches of the **superficial temporal artery**

Muscles of the eyelid:

A.**Orbicularis oculi**:

Location:

1.Surrounds the **palpebral fissure** (opening between the eyelids).

2.Lies within the **eyelids** and extends around the orbital margin.

Origin and Insertion:

Origin: Medial palpebral ligament and surrounding bone (frontal bone and maxilla near the orbit).

Insertion: Skin around the eyelids and lateral palpebral commissure.

Structure:
Divided into two main parts:

1.Palpebral part: Located within the eyelids; responsible for gentle blinking.

2.Orbital part: Encircles the orbital margin; allows tight closure of the eyes (e.g., in response to threat or irritation).

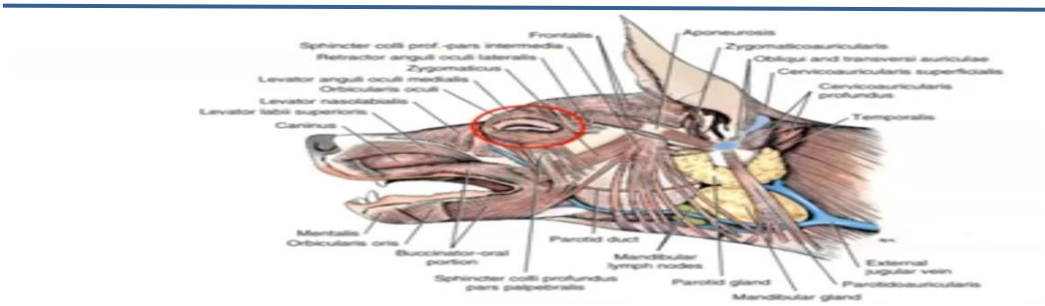
Innervation:

Supplied by the **auriculopalpebral branch** of the **facial nerve (Cranial Nerve VII)**.

Function:

1.Closes the eyelids, aiding in blinking, spreading the tear film, and protecting the eye.

2.Important in facial expression and ocular defense mechanisms.



B.**Retractor Anguli Oculi Lateralis**:

Location:

Positioned **caudolateral** to the **orbicularis oculi** muscle, near the **lateral canthus** (outer corner) of the eye.

Origin and Insertion:

Origin: Temporal fascia (from the deep fascia over the temporal region of the head).

Insertion: Lateral commissure (angle) of the eyelids.

Structure and Relationship:

1.Thin, narrow, and somewhat **strap-like** muscle.

2.Lies **superficial to the temporal region** and blends with fibers of the **orbicularis oculi** and **levator anguli oculi medialis** muscles near the eyelid.

Innervation:

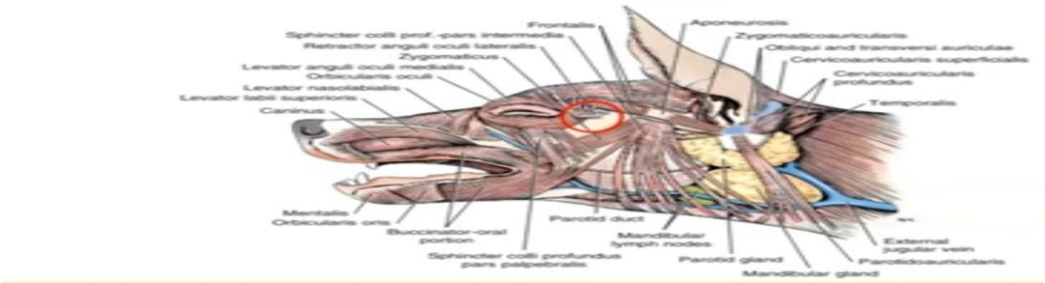
Supplied by the **facial nerve (Cranial Nerve VII)** — specifically its **auriculopalpebral branch**.

Function:

1.**Retracts the lateral canthus** of the eye posteriorly (toward the ear).

2.Contributes to the **expression of facial emotion**, and works synergistically with other eyelid muscles to shape the eye opening.

3.Assists in **tight closure of the eyelids** during squinting or blinking.



C.**Levator Anguli Oculi Medialis**:

Location:

Found at the **medial side of the orbit**, near the **medial canthus** of the eye.

Origin and Insertion:

Origin: Frontal bone, just dorsal and medial to the orbit.

Insertion: Skin and fascia at the **medial angle (canthus)** of the eye.

Structure and Relationship:

1.Thin, delicate muscle.

2.Lies close to or partially blends with the **frontalis** muscle and fibers of the **orbicularis oculi**.

3.Superficial to the underlying bony orbit.

Innervation:

Innervated by the **auriculopalpebral branch** of the **facial nerve (Cranial Nerve VII)**.

Function:

1.**Elevates the medial angle** of the eye.

2.Contributes to the **facial expression**, particularly those involving **alertness or attention**.

3.Aids in **tight eye closure** and **positioning of the eyelids**.