

Checklist GI Lab week 1

* Mouth /tongue/pharynx/mandible/ palate/ salivary glands

Oral Cavity

Borders:

- Anteriorly: Oral Fissure
- Posteriorly: oropharyngeal isthmus
- Laterally from the sides: cheeks
- Roof: Hard & soft palates
- Floor: Tongue, salivary glands, mylohyoid muscle

* Sensory Innervation (General sensation: pain, touch, temperature)

Roof (Hard/Soft Palate): Supplied by the greater palatine and nasopalatine nerves (branches of V2).

Floor: Innervated by the lingual nerve (branch of V3).

Cheeks (Buccal Mucosa): Supplied by the buccal nerve (branch of V3).

Teeth/Gingiva: Maxillary teeth are supplied by superior alveolar nerves (V2); mandibular teeth by the inferior alveolar nerve (V3)

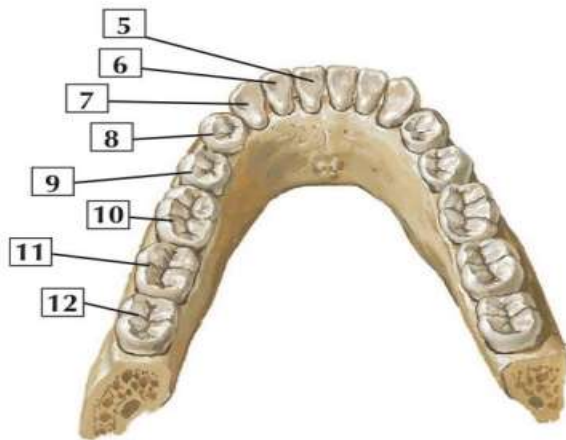
Teeth

Deciduous Teeth

- There are 20 deciduous teeth: four incisors, two canines, and four molars in each jaw
- They begin to erupt about 6 months after birth and have all erupted by the end of 2 years.
- The teeth of the lower jaw usually appear before those of the upper jaw
- Permanent Teeth
- There are 32 permanent teeth: four incisors, two canines, four premolars, and six molars in each jaw
- They begin to erupt at 6 years of age

The last tooth to erupt is the third molar, which may happen between the ages of 17 and 30

- The teeth of the lower jaw appear before those of the upper jaw.

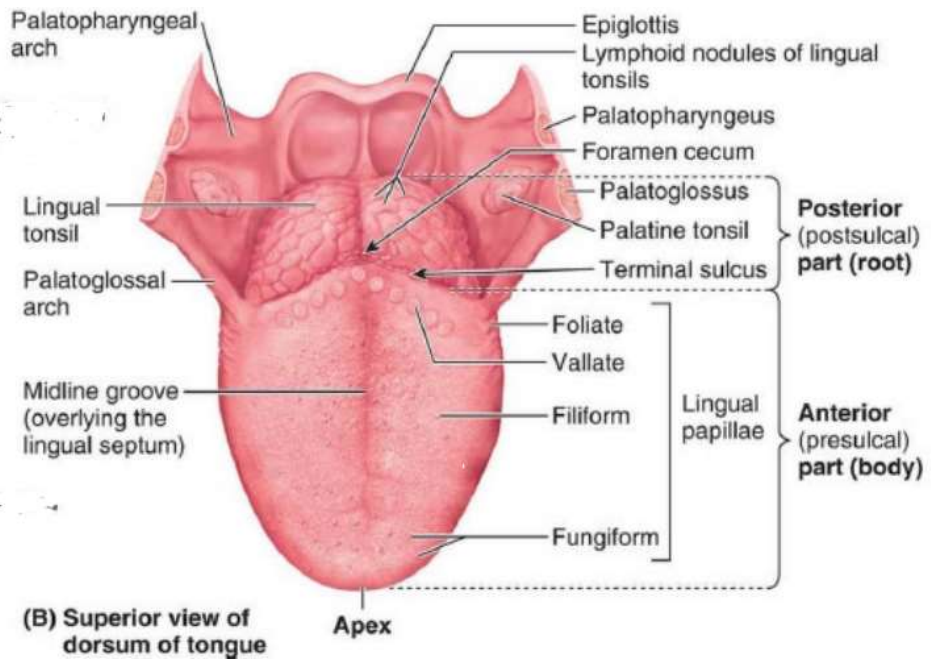


- 5. Central incisor
- 6. Lateral incisor
- 7. Canine
- 8. 1st premolar
- 9. 2nd premolar
- 10. 1st molar
- 11. 2nd molar
- 12. 3rd molar

Lower permanent teeth

Tongue

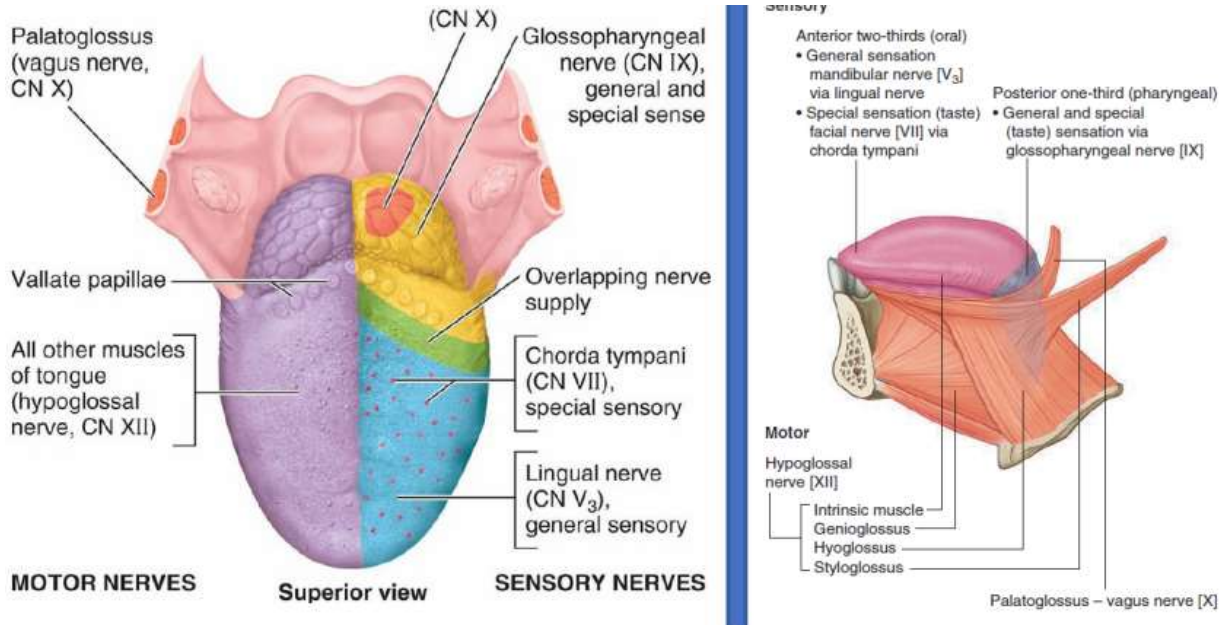
- Foramen cecum
- Sulcus terminalis
- Median sulcus
- Circumvallate papilla
- Glossoepiglottic folds
- Palatopharyngeal & palatoglossal arches
- Lingual tonsils & palatine tonsils
- Intrinsic and extrinsic muscles of the tongue
- Hypoglossal nerve



Tongue Innervation

- General Sensation (Anterior 2/3): Lingual nerve (V3).
- Taste (Anterior 2/3): Chorda tympani (branch of CN VII).
- General Sensation & Taste (Posterior 1/3): Glossopharyngeal nerve (CN IX).

Motor (Tongue Muscles): Hypoglossal nerve (CN XII) for all intrinsic/extrinsic muscles except the palatoglossus (supplied by Vagus nerve, CN X). **Palate**



Hard palate:

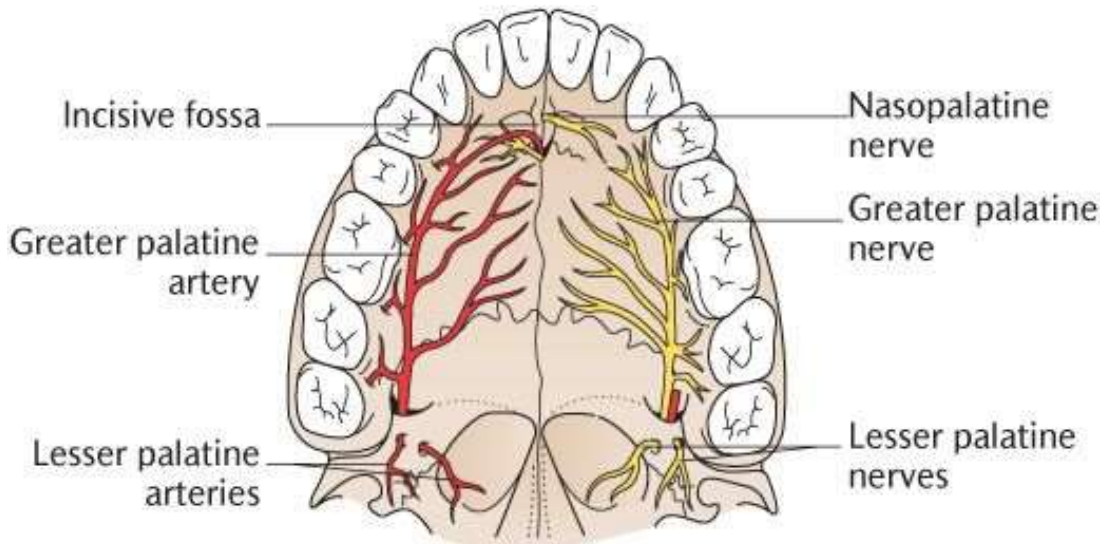
Form by 2 bones (maxillary & palatine)

Notice on the base of the skull: vomer/ choana/ stylomastoid foramen

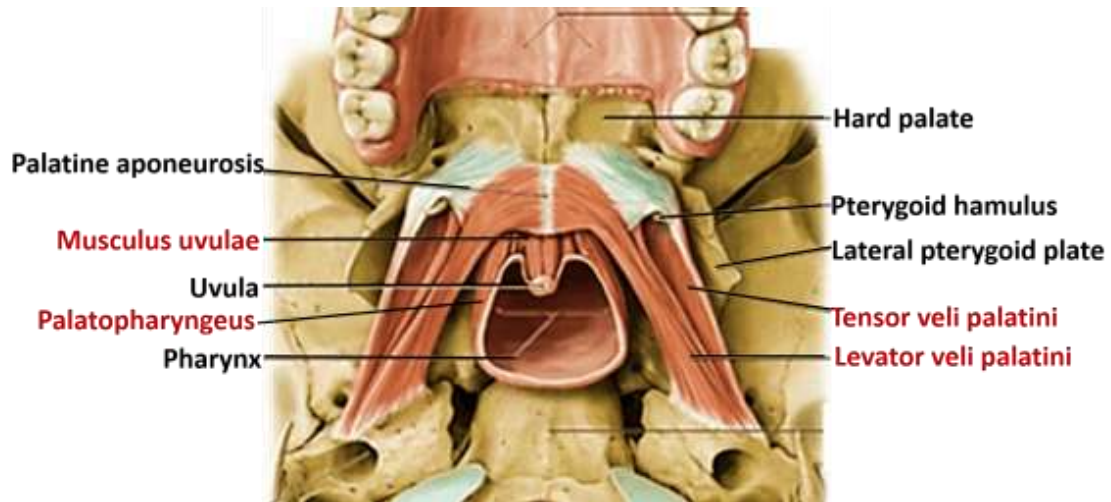
& foramen ovale

Incisive foramen

Lesser and greater palatine foramen



Soft palate: determine the muscles of soft palate

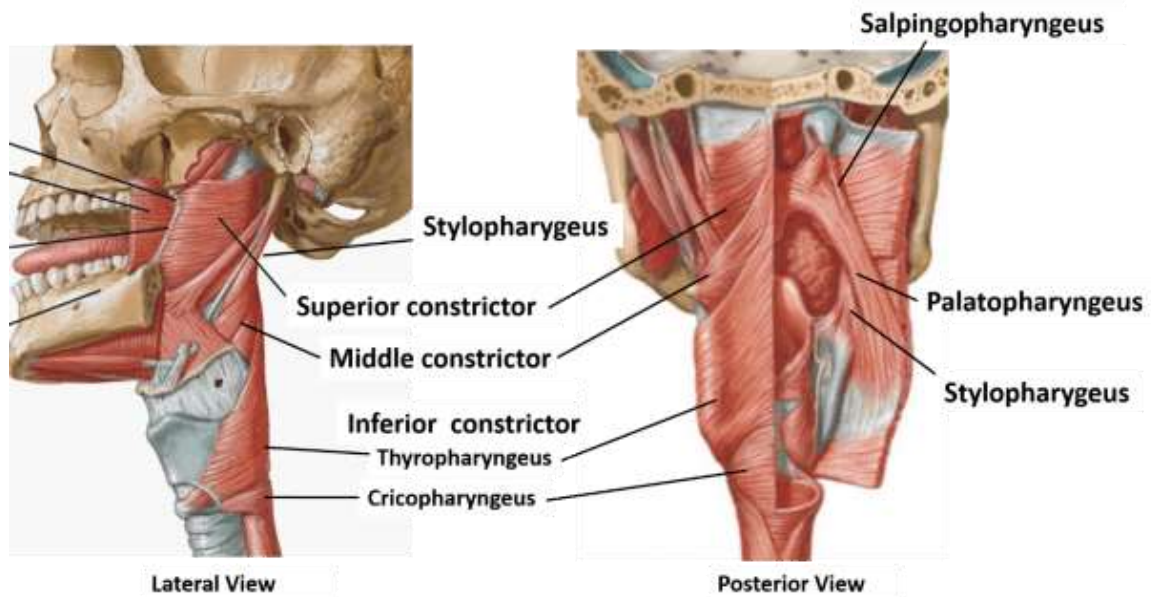


Pharynx:

Begins at the base of skull

Pharyngeal raphe

Muscles of pharynx



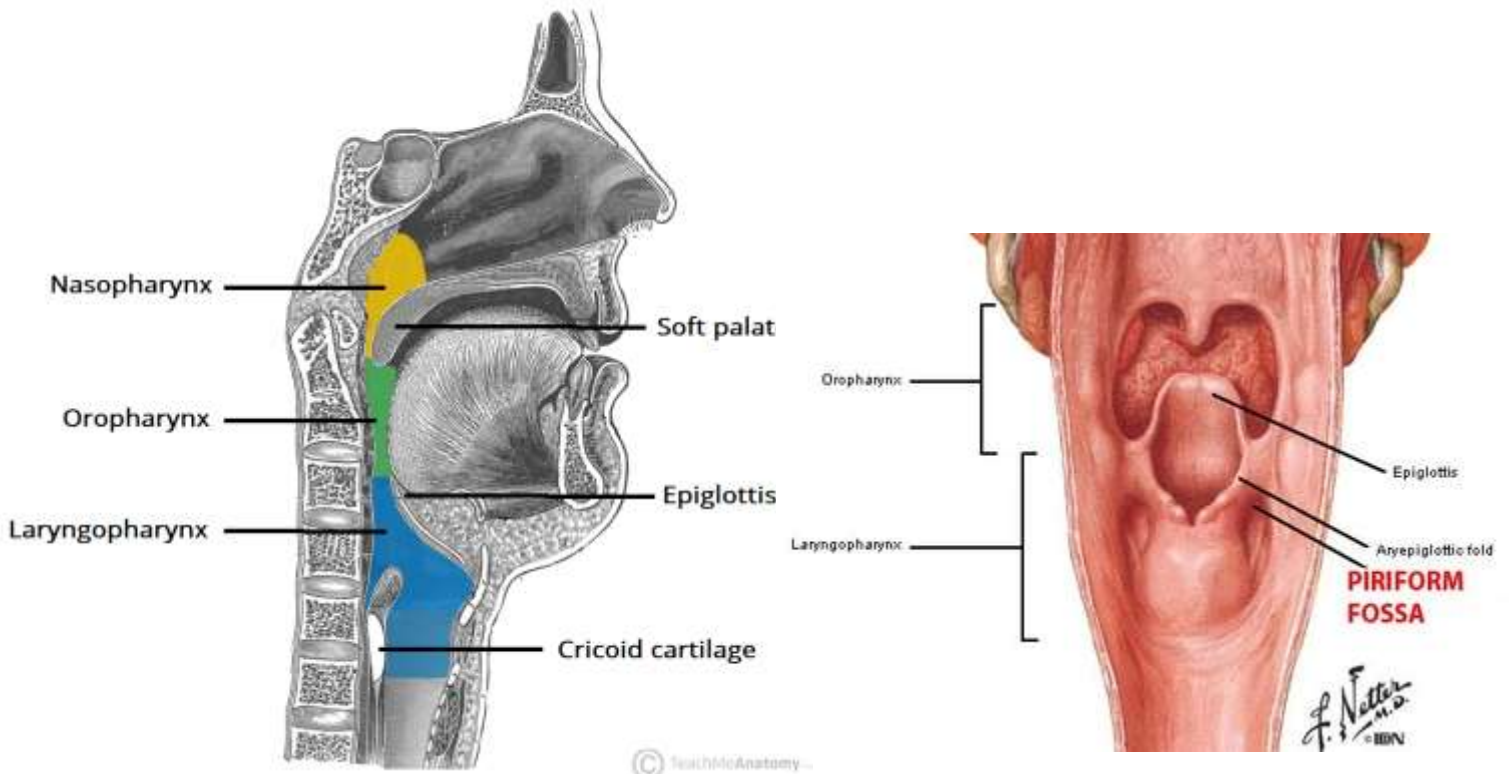
3 parts:

1. Nasopharynx (This lies above the soft palate and behind the nasal cavities / pharyngeal tonsil, The salpingopharyngeal fold)
2. Oropharynx (This lies behind the oral cavity, The floor is formed by the posterior one third of the tongue)

and the interval between the tongue and epiglottis / median and lateral glossoepiglottic fold / vallecula)

3. Laryngeopharynx (This lies behind the opening into the larynx/ Piriform fossa (important)

- A depression, antero-lateral to laryngopharynx
- Foreign bodies such as fish bones are lodged into



Salivary glands:

Parotid gland:

Position

Notice the facial nerve branches

Contents of gland

Parotid duct

Relations and innervation (Parasympathetic (Secretomotor))

Preganglionic: Fibers originate in the inferior salivatory nucleus and travel via the glossopharyngeal nerve (CN IX). They then branch off into the tympanic nerve and finally the lesser petrosal nerve.

Synapse: Otic ganglion.

Postganglionic: Fibers leave the ganglion and "hitchhike" along the auriculotemporal nerve (a branch of V3) to reach the gland.

Submandibular gland:

Divided into superficial & deep lobe by the mylohyoid muscle

Relations and innervation

Sublingual gland:

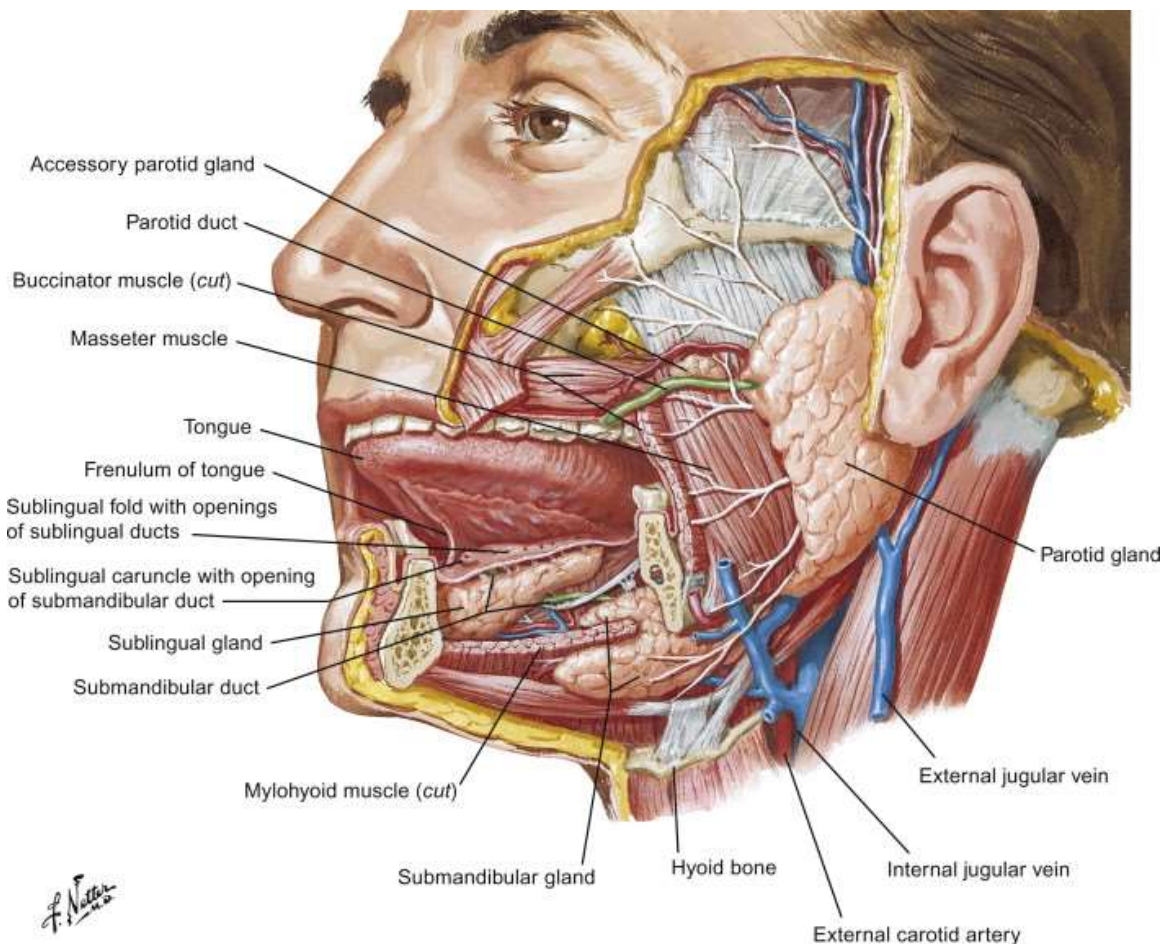
Located under the tongue

Relations and innervation

- Submandibular & Sublingual Glands Parasympathetic (Secretomotor):

Preganglionic: Fibers originate in the superior salivatory nucleus and travel via the facial nerve (CN VII). they then branch off into the chorda tympani, which joins the lingual nerve (a branch of V3).

Synapse: Submandibular ganglion.



Postganglionic: Fibers travel directly from the ganglion to the submandibular and sublingual glands.

Mandible:

Ramus, body, angle of mandible

2 processes: chondylar & coronoid process

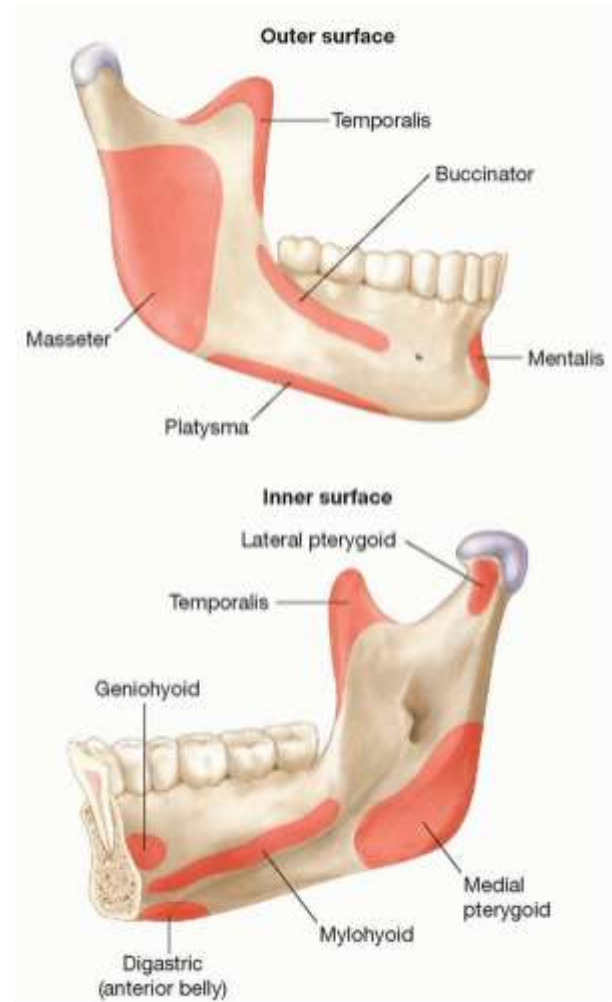
Mandibular foramen, Mandibular notch

Mylohyoid groove

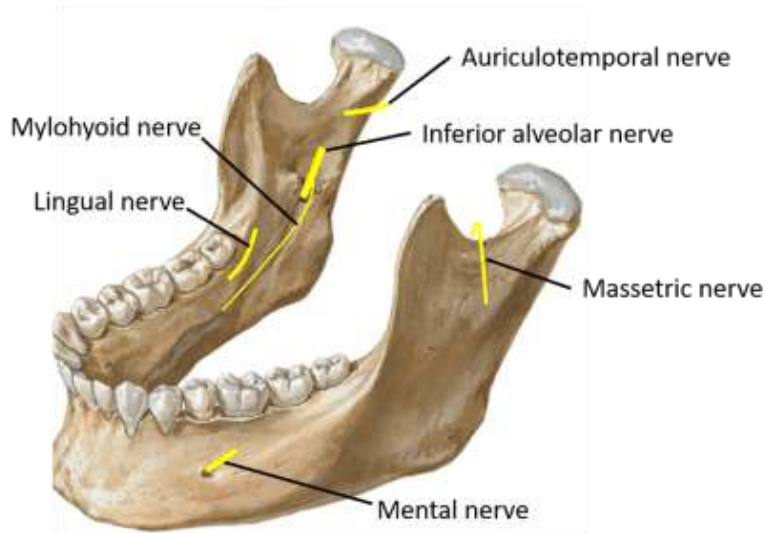
Mental foramen

Digastric fossa

Relation with the blood vessels, nerves and muscles

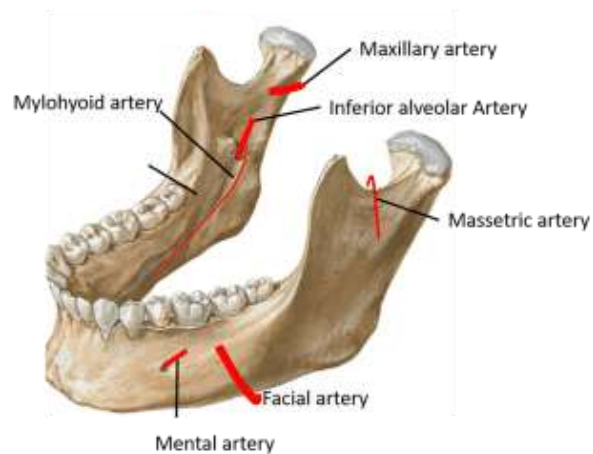


Q. Name the nerves closely related to mandible.



Lingual nerve may get injured during extraction of lower 3rd molar tooth. It will result in loss of sensation from anterior 2/3rd of tongue except circumvallate papillae and decreased salivation.

Q. Name the arteries closely related to mandible.



Pulsations of facial artery can be felt at the anteroinferior angle of masseter muscle.