

بسم الله الرحمن الرحيم

The Parotid Region (Parotid Bed)

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BORDERS AND STRUCTURES

- **Anterior**

- Masseter m., Ramus of mandible

- **Posterior**

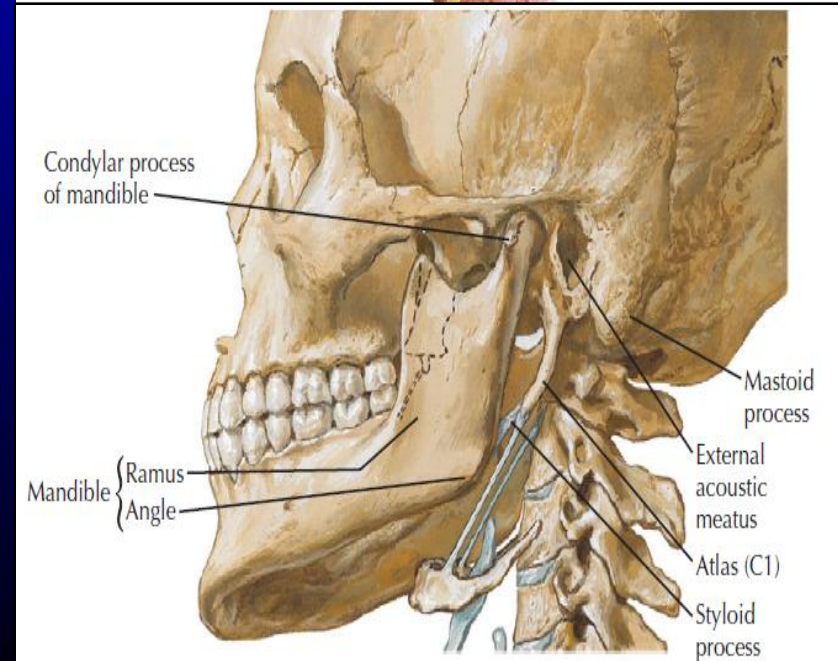
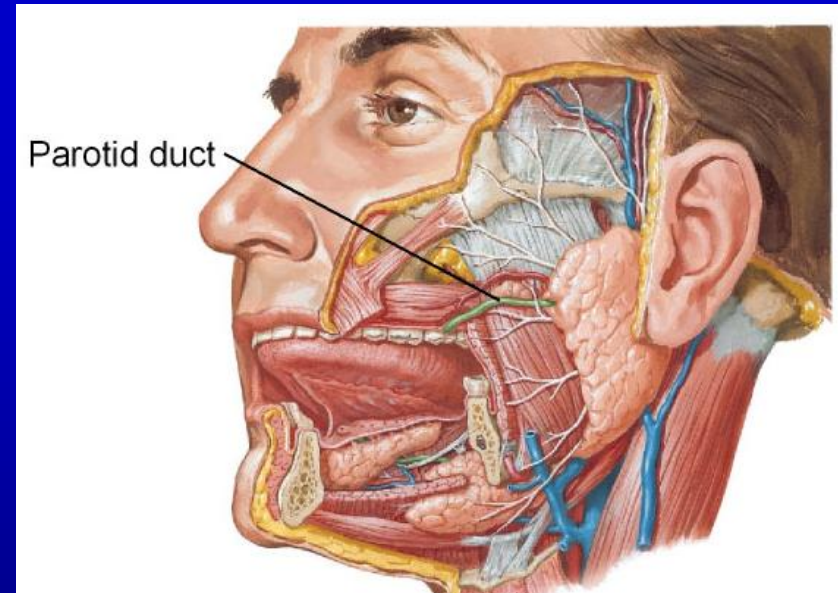
- Mastoid process of the temporal bone
- Sternocleidomastoid m.

- **Medial**

- Styloid process
- Transverse process of the atlas

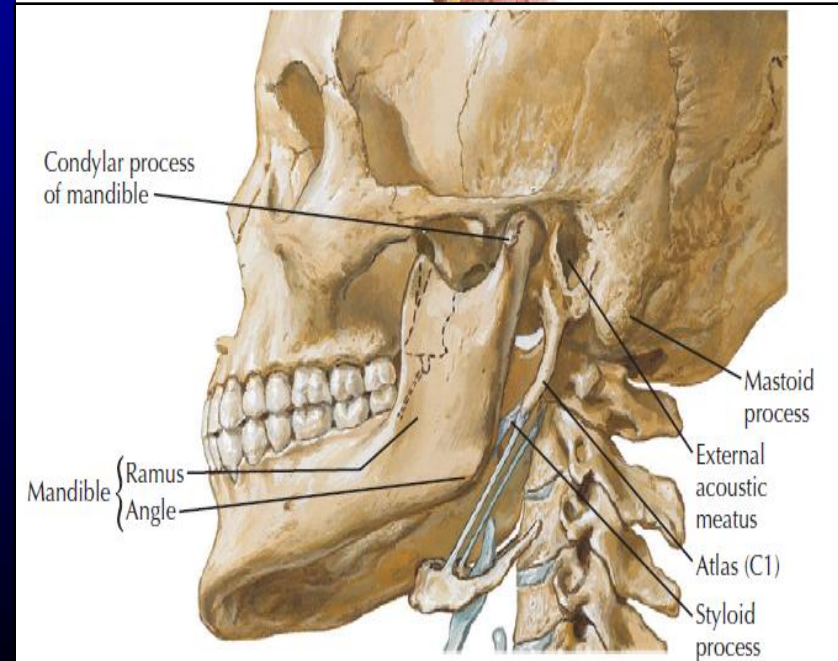
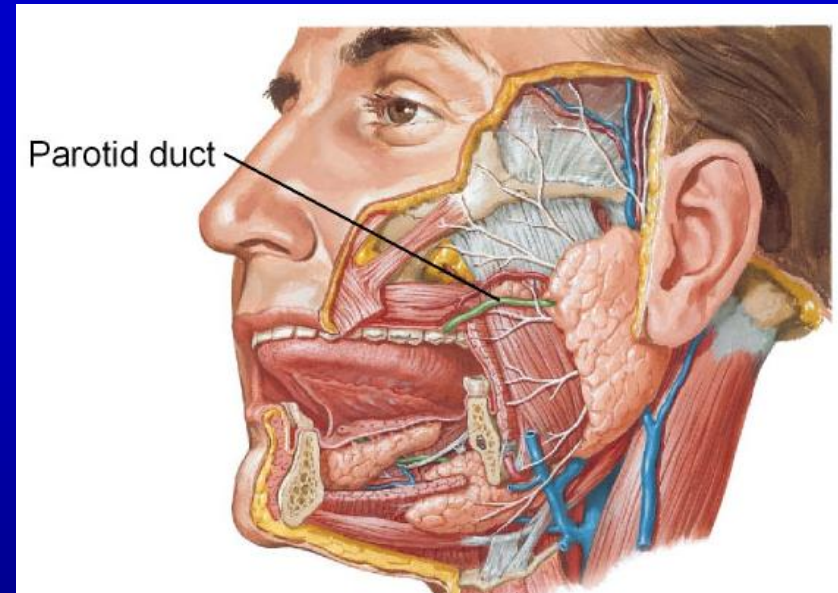
- **Lateral**

- Investing layer of deep cervical fascia helping form the capsule



BORDERS AND STRUCTURES

- **Superior**
 - External acoustic meatus
 - Condylar head of the mandible articulating in the glenoid fossa
- **Inferior**
 - the angle of the mandible and the sternocleidomastoid m.



Contents of the parotid bed

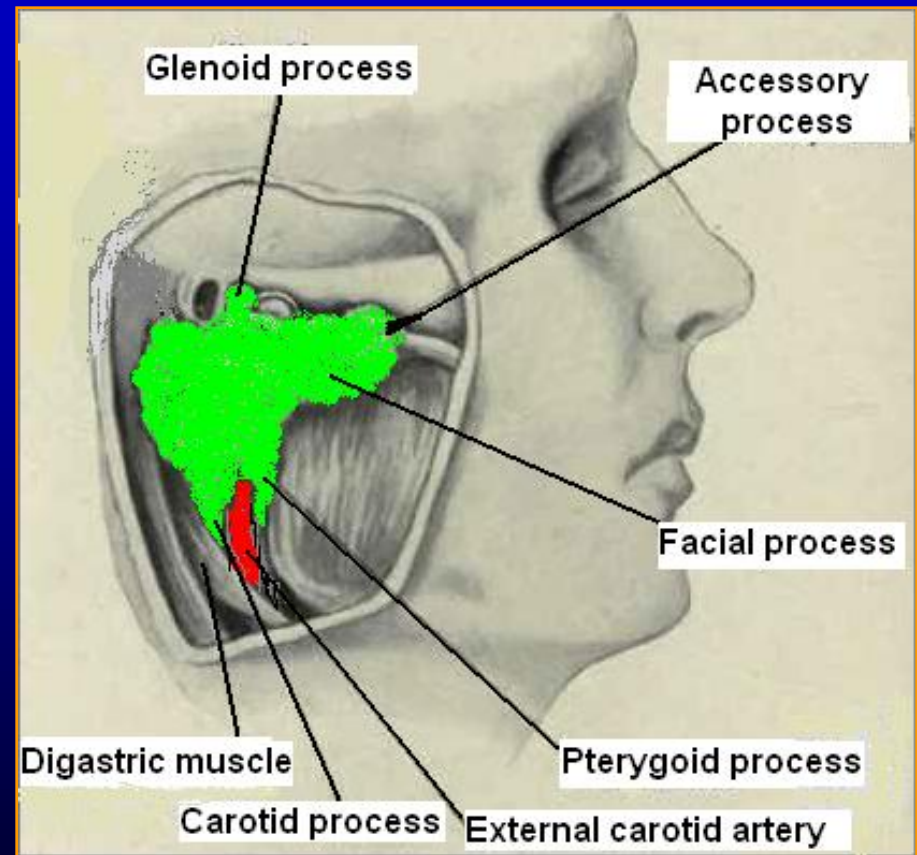
(Major structures)

- Parotid gland
- The parotid gland is the largest salivary gland and is composed mostly of serous acini. Pyramidal in shape, with the base above & the apex behind the angle of the mandible. It exhibits 3 surfaces: **Lateral Anteromedial Posteromedial**
- It has 5 processes (extensions). It lies in a deep hollow below the external auditory meatus. About 75% or more of the parotid gland overlies the masseter m.; the rest is behind the ramus of the mandible (retromandibular), and in front of the sternocleidomastoid muscle. The facial nerve divides the gland into superficial and deep lobes. The parotid duct emerges from the anterior border of the gland and passes forward over the lateral surface of the masseter.

Contents of the parotid bed (processes)

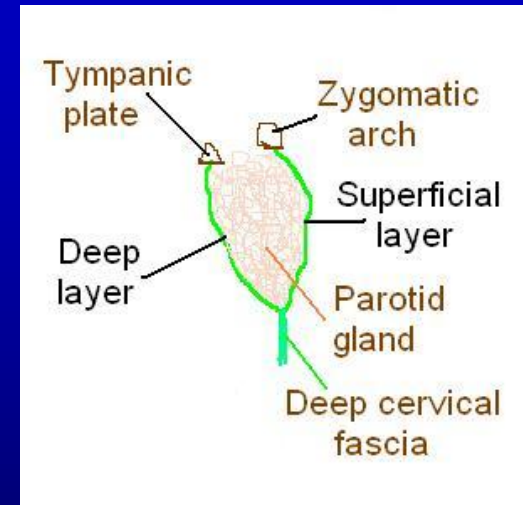
The gland is an irregular lobulated mass, sends 'processes' in various directions. These include:

- **Glenoid process**, that extends upward behind the temporo-mandibular joint, in front of external auditory meatus
- **Facial process**, that extends anteriorly onto the masseter muscle
- **Accessory process (part)**, small part of facial process lying along the parotid duct
- **Pterygoid process**, that extends forward from the deeper part, lies between the medial pterygoid muscle & the ramus of mandible
- **Carotid process**, that lies posterior to the external carotid artery



Contents of the parotid bed Capsules

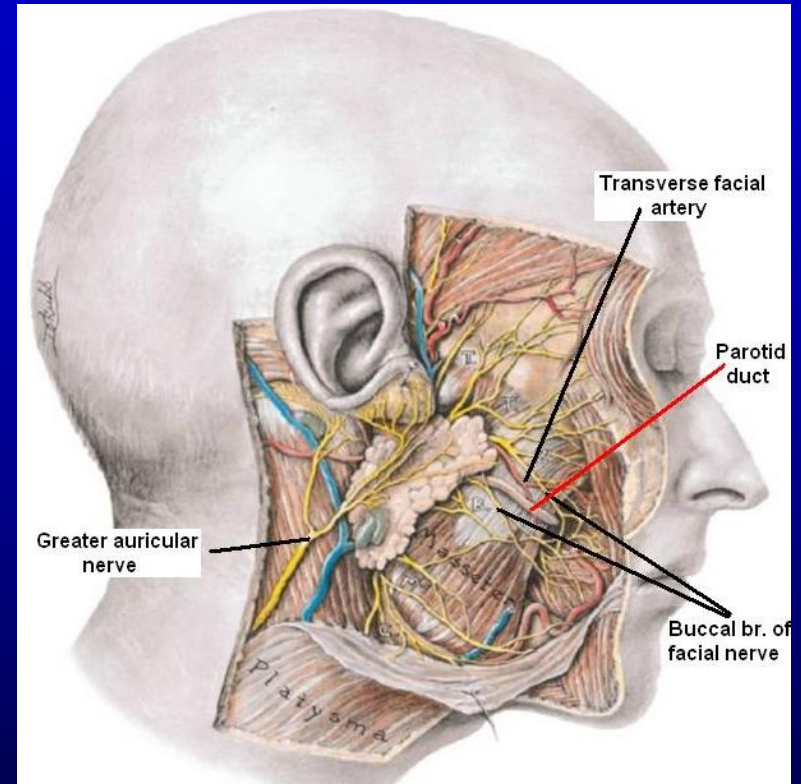
- The parotid gland is enclosed in **two capsules**:
 - An **inner** connective tissue capsule
 - An **outer** dense fibrous capsule derived from the **investing layer of the deep cervical fascia**
- The **deep cervical fascia** extends upward, reaches the inferior border of parotid gland, splits into the **superficial** & the **deep** layer, to enclose the gland
- Above the gland, the:
 - **Superficial layer** gets attached to the **zygomatic arch**
 - **Deep layer** gets attached to the **tympanic plate of temporal bone**



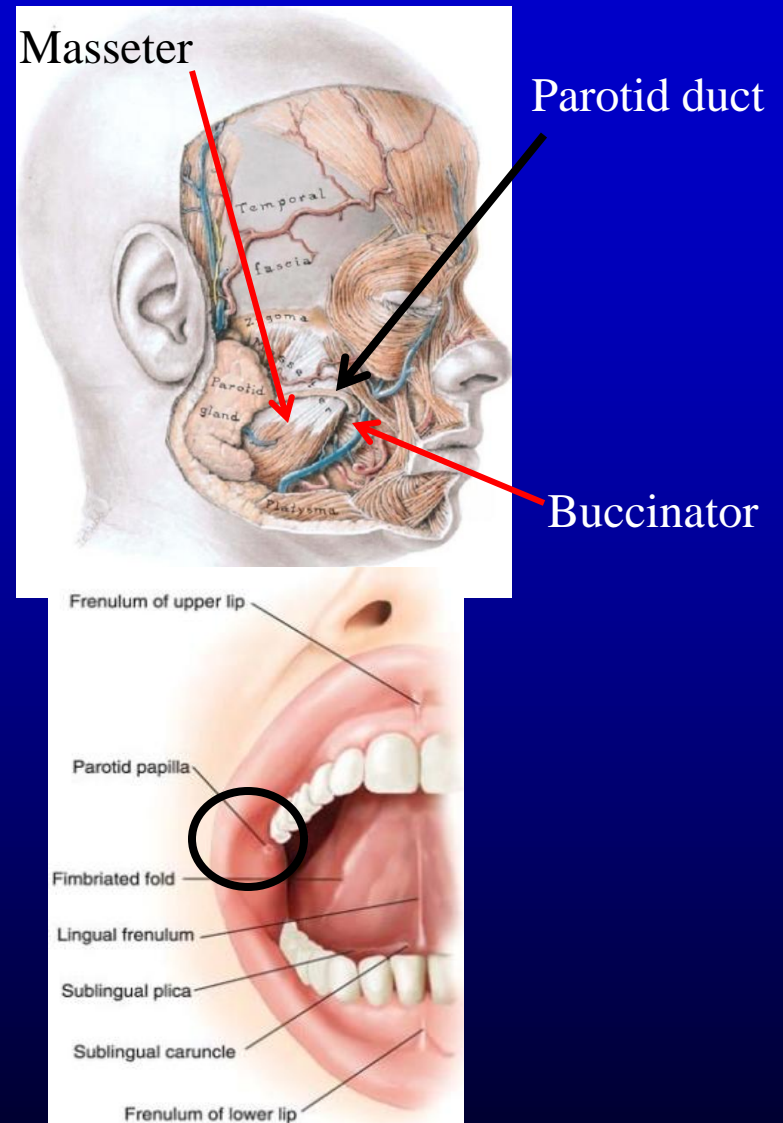
A portion of fascia extending from the styloid process to the angle of mandible is called **stylomandibular ligament**. It separates the parotid gland from the submandibular gland

Parotid (Stensen's) Duct

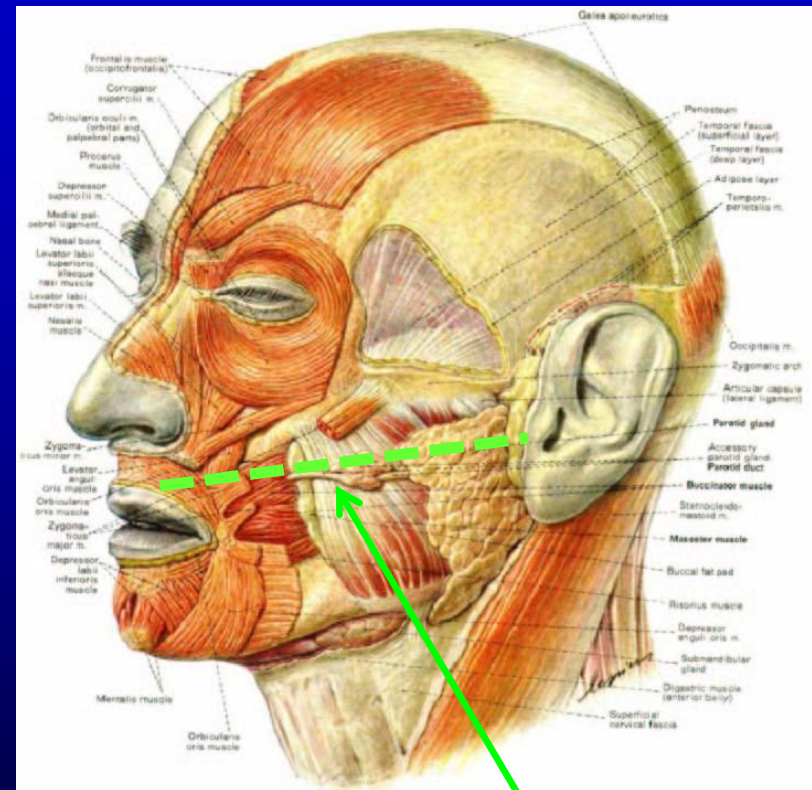
- About 2 inches long
- Emerges from the facial process of the gland
- Passes forward over the lateral surface of the masseter muscle
 - about a fingerbreadth below the zygomatic arch
 - accompanied by the:
 - transverse facial vessels & upper zygomatic branches of facial nerve above
 - lower zygomatic branches of facial nerve below



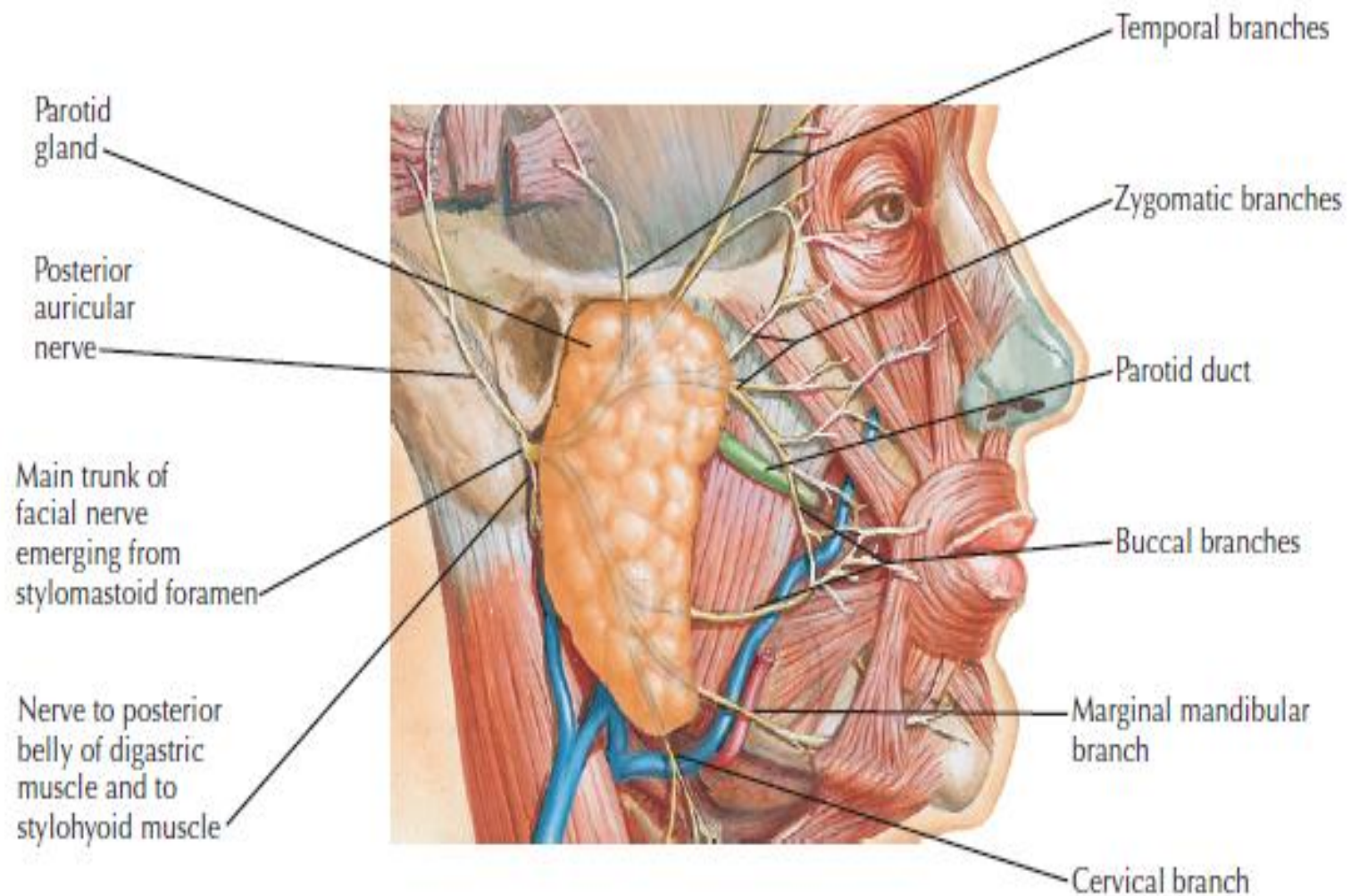
- Turns around the anterior border of masseter muscle
- Pierces the:
 - Buccal pad of fat
 - Buccopharyngeal fascia
 - Buccinator muscle &
 - Buccal mucosa
- Opens into the vestibule of mouth on a small papilla, opposite the second upper molar tooth



- The oblique passage of the duct in the buccinator muscle acts as a valve-like mechanism & prevents inflation of the duct during blowing



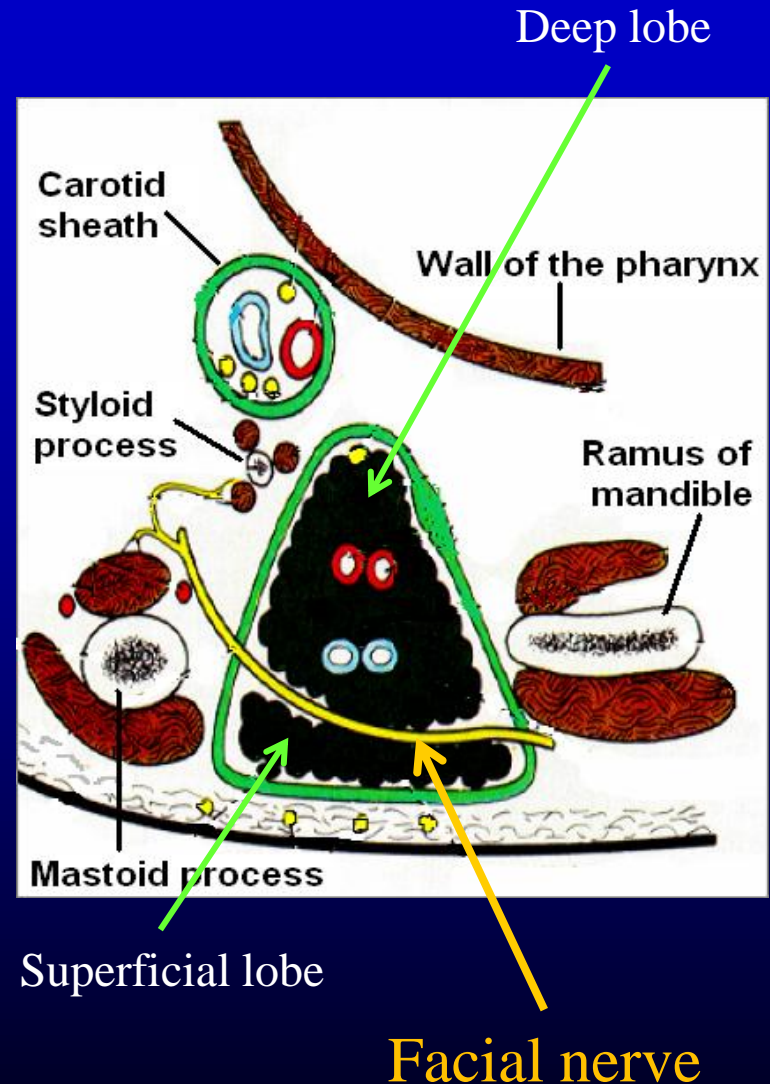
Parotid Duct



Contents of the parotid bed

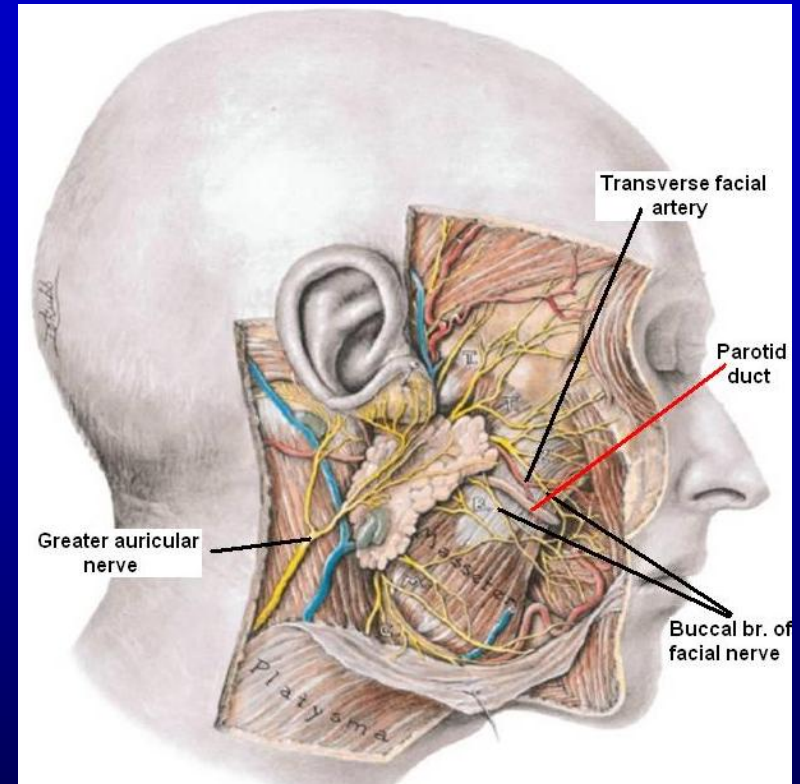
Facial nerve

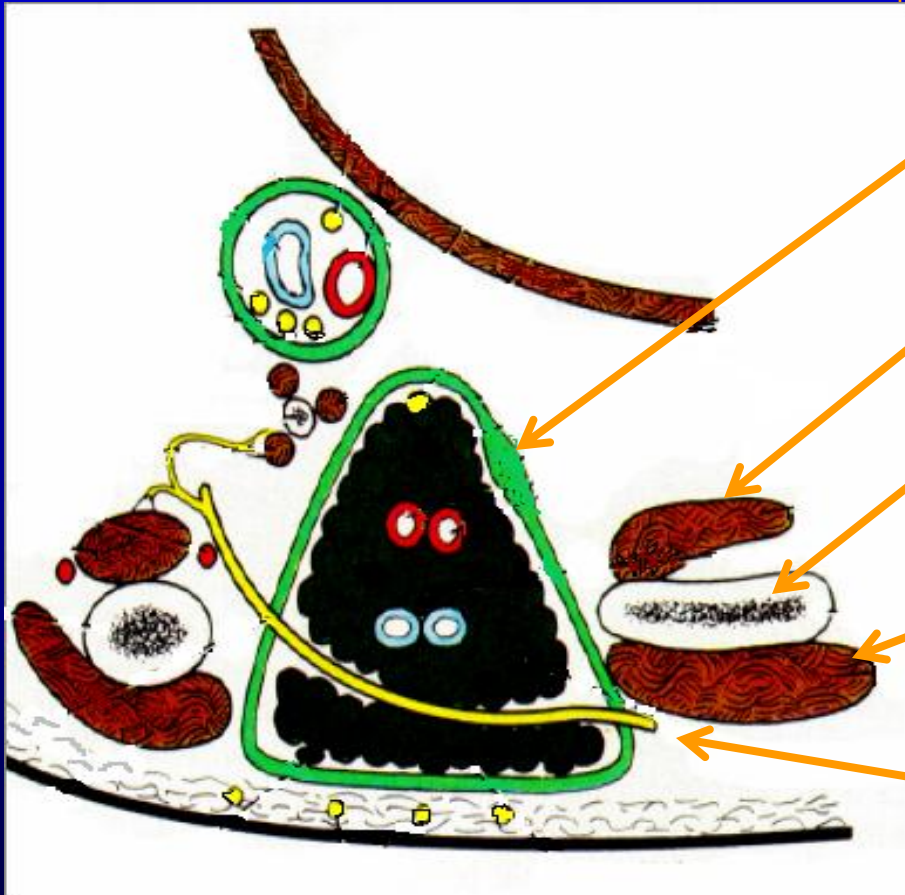
- The **facial nerve** courses horizontally through the gland and divides it into:
 - Superficial lobe
 - Deep lobe



Relations

- **Superficial (lateral):**
 - Skin & superficial fascia
 - Great auricular nerve
 - Parotid lymph nodes
- **Superior:**
 - External auditory meatus
 - Temporomandibular joint
 - Its glenoid process is related to the auriculo-temporal nerve



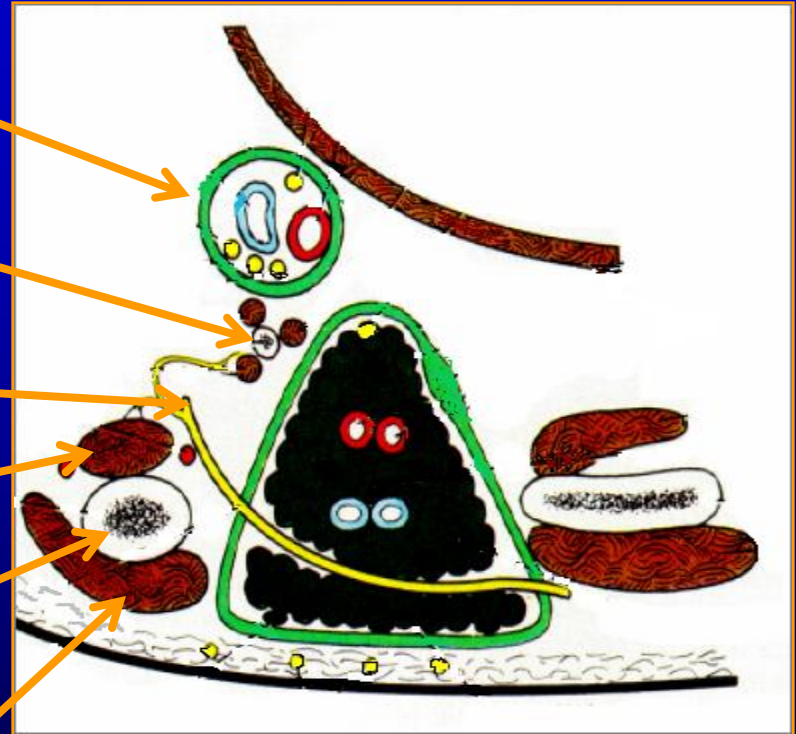


• **Anteromedial:**

- Stylomandibular ligament
- Medial pterygoid
- Posterior border of the ramus of mandible
- Masseter
- Terminal branches of the facial nerve
- Temporo-mandibular joint

- **Posteromedial:**

- Carotid sheath with its contents
- Styloid process & attached muscles
- Facial nerve
- Posterior belly of digastric muscle
- Mastoid process
- Sternocleidomastoid

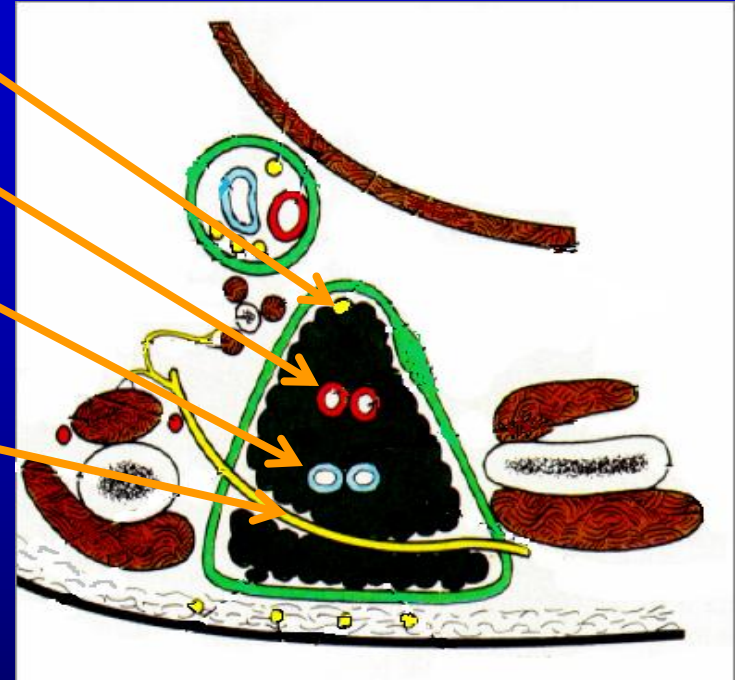


Structures Coursing Within the Parotid Gland

Deep

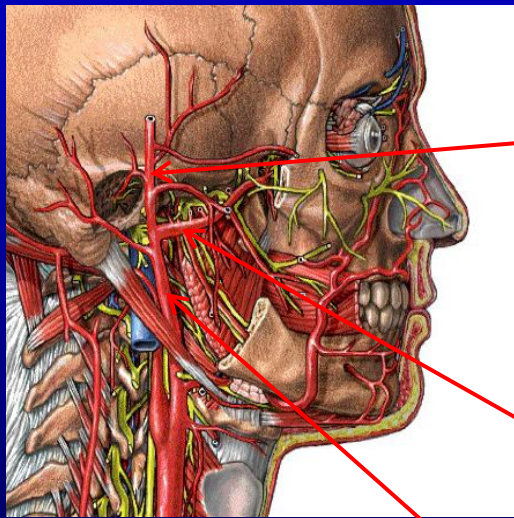
- Auriculotemporal nerve
- External carotid artery
- Retromandibular vein
- Facial nerve

Superficial



A few lymph nodes are scattered in the substance of the gland

Arterial supply:
External carotid artery
& its terminal branches

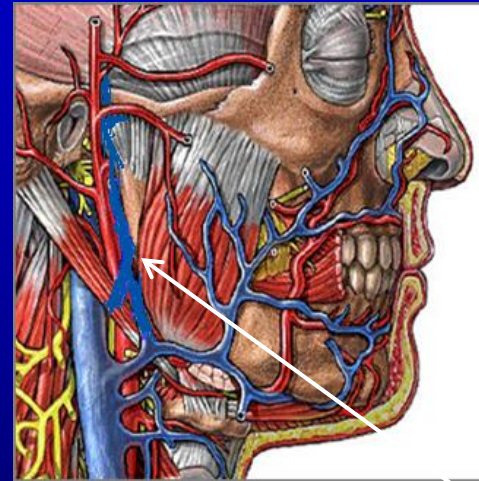


Superficial
temporal a.

Maxillary a.

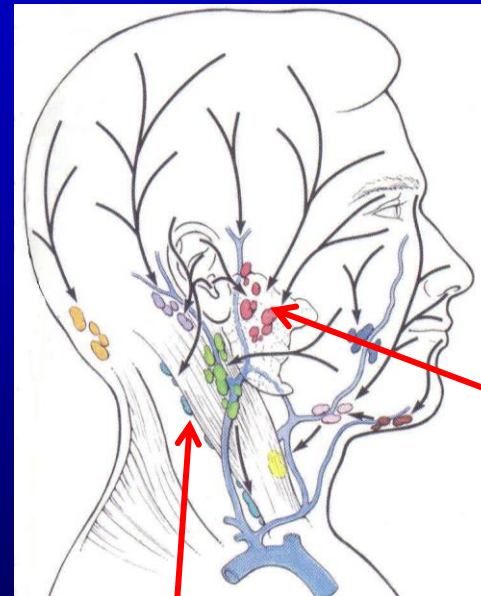
External
carotid a.

Venous drainage: Into
the retro-mandibular vein



Retromandibular v.

Lymph Drainage: Into the
parotid & then into the
deep cervical lymph nodes

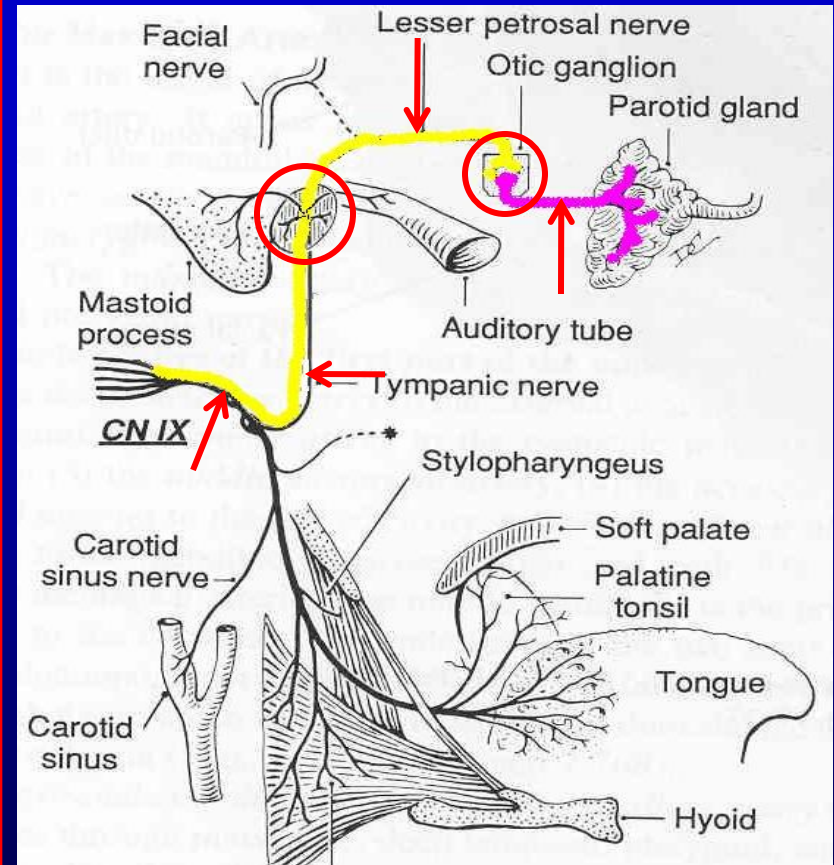


Parotid n.

Deep cervical n.

Nerve Supply

- **Sensory** :
 - Auriculotemporal n.
- **Autonomic**:
 - Sympathetic through plexus around the arteries (T1 → SCG → plexus around ECA)
 - Parasympathetic through otic ganglion (CN9 → tympanic n. → tympanic plexus → lesser petrosal n. → **otic ganglion** → auriculotemporal n.)



Thanks for your listening