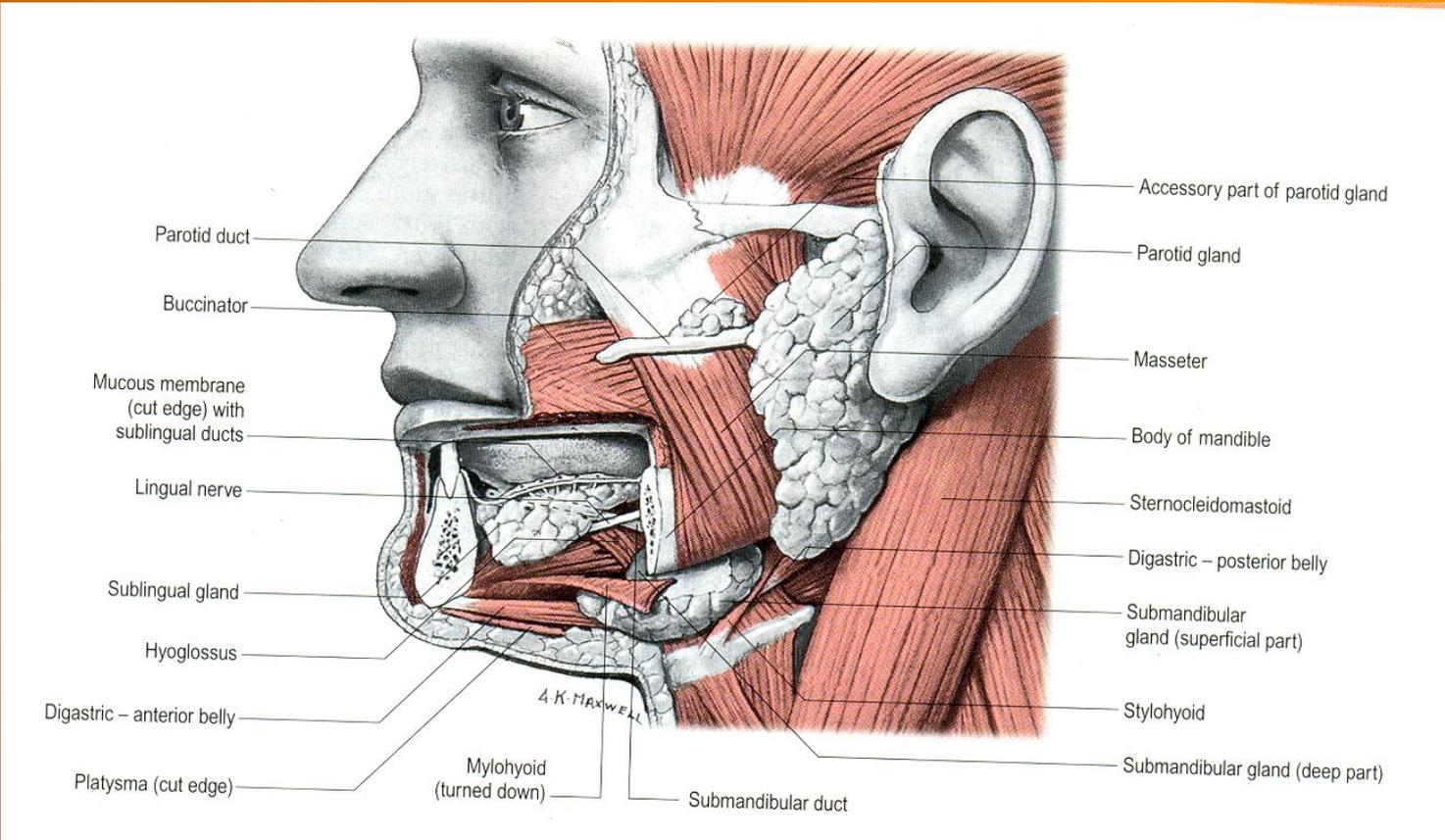
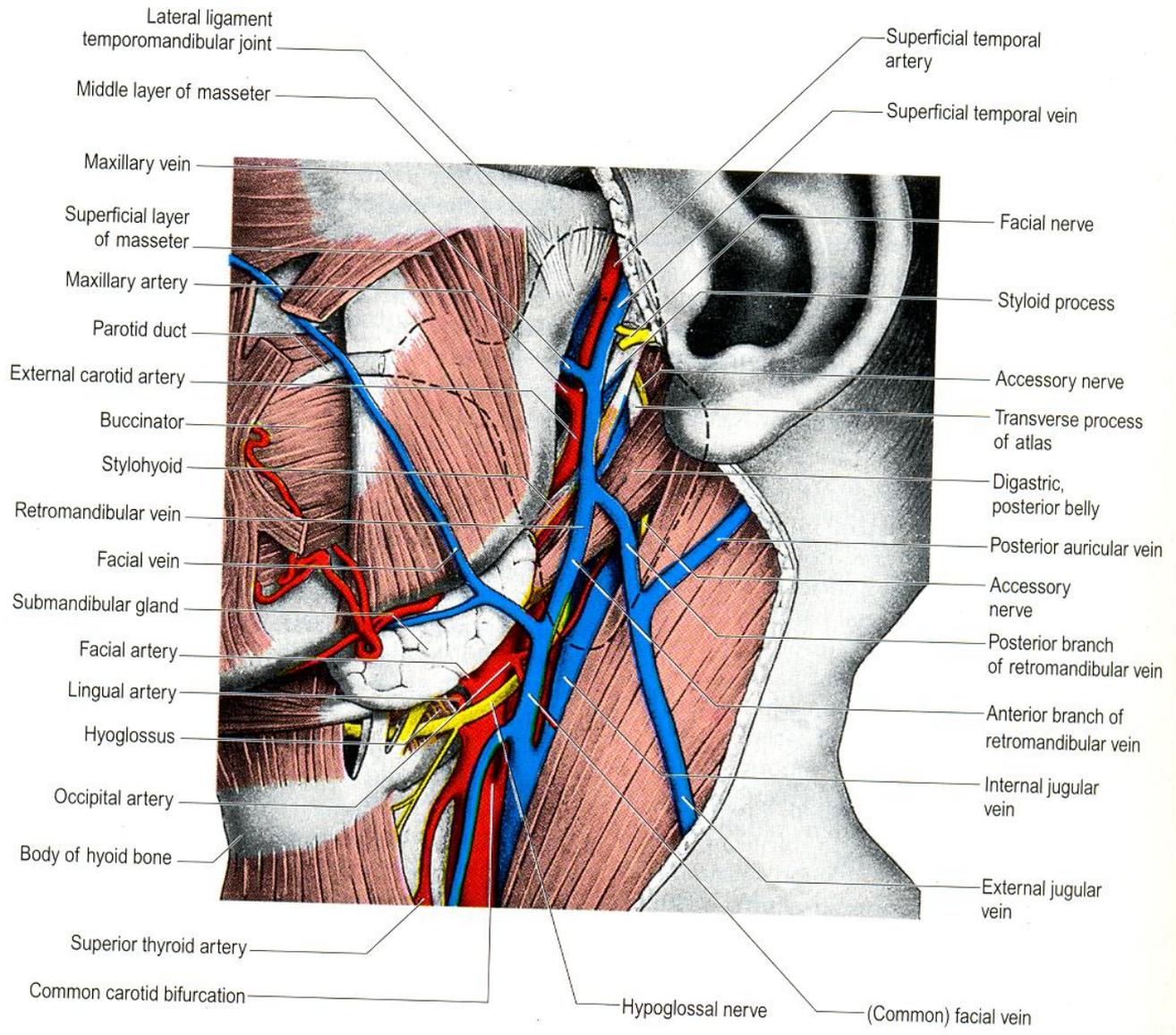


Parotid gland & Facial Nerve





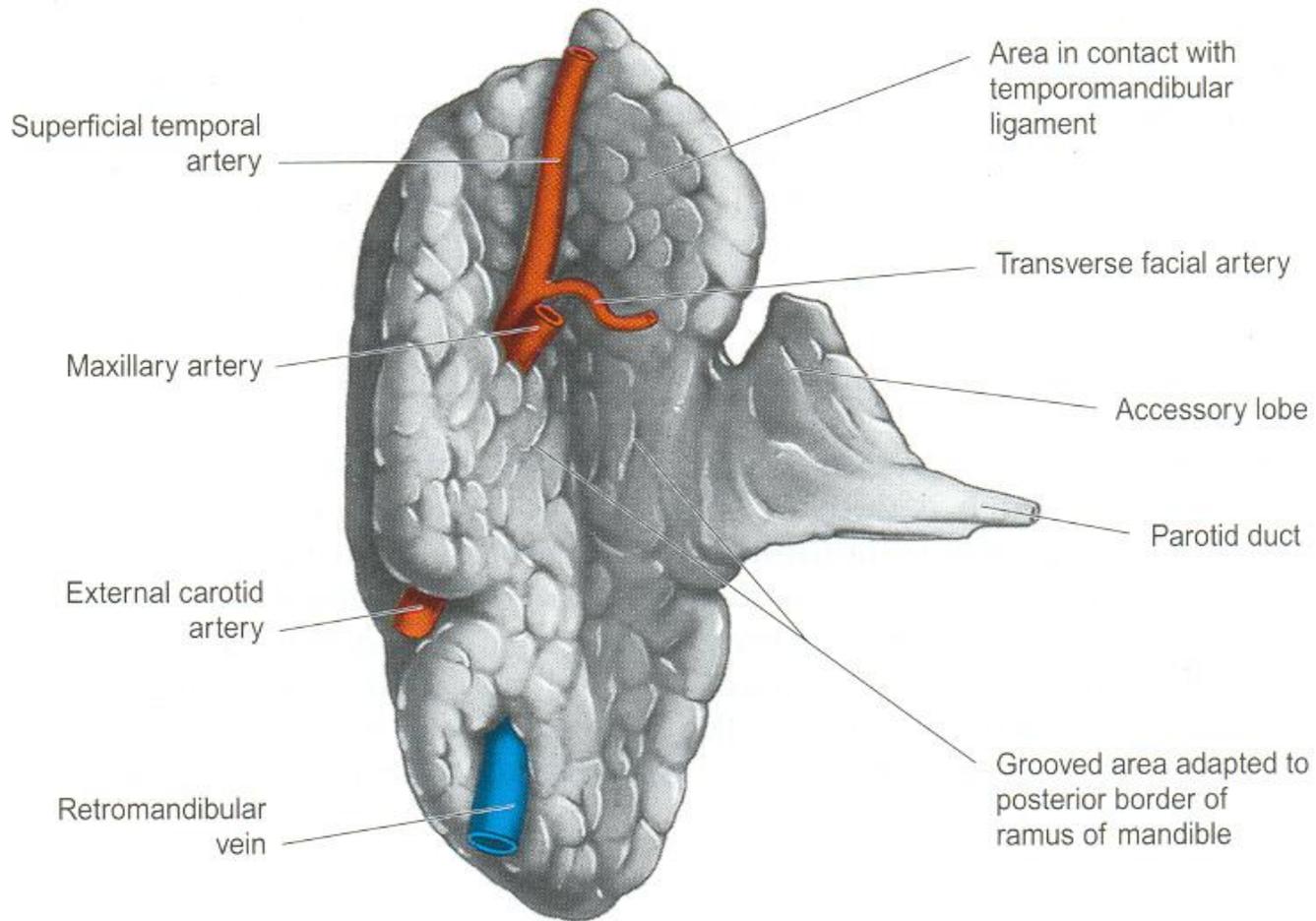
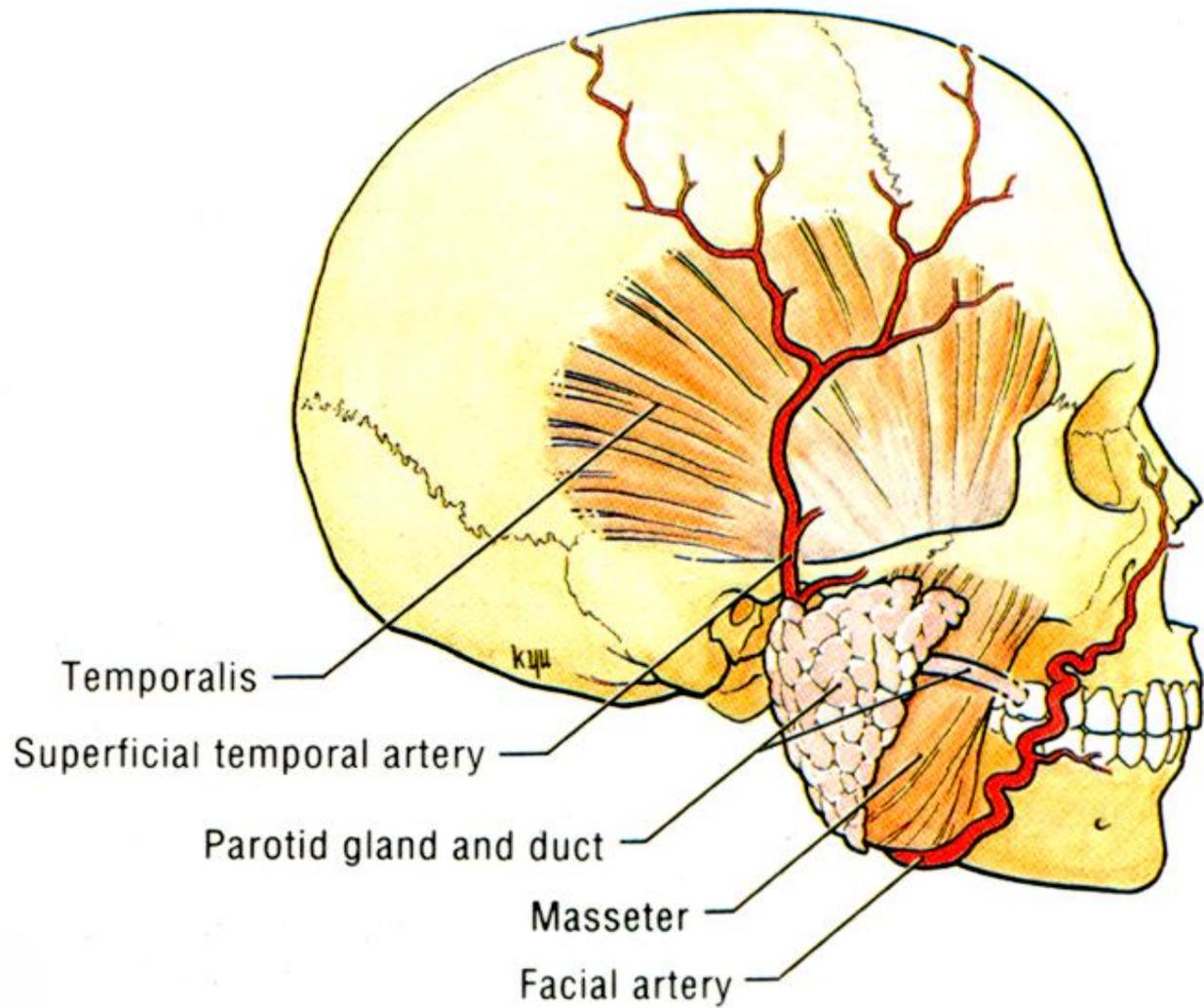
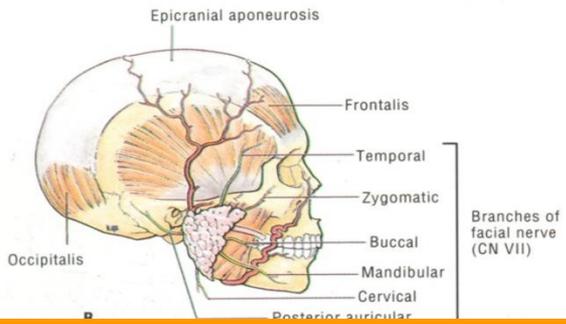
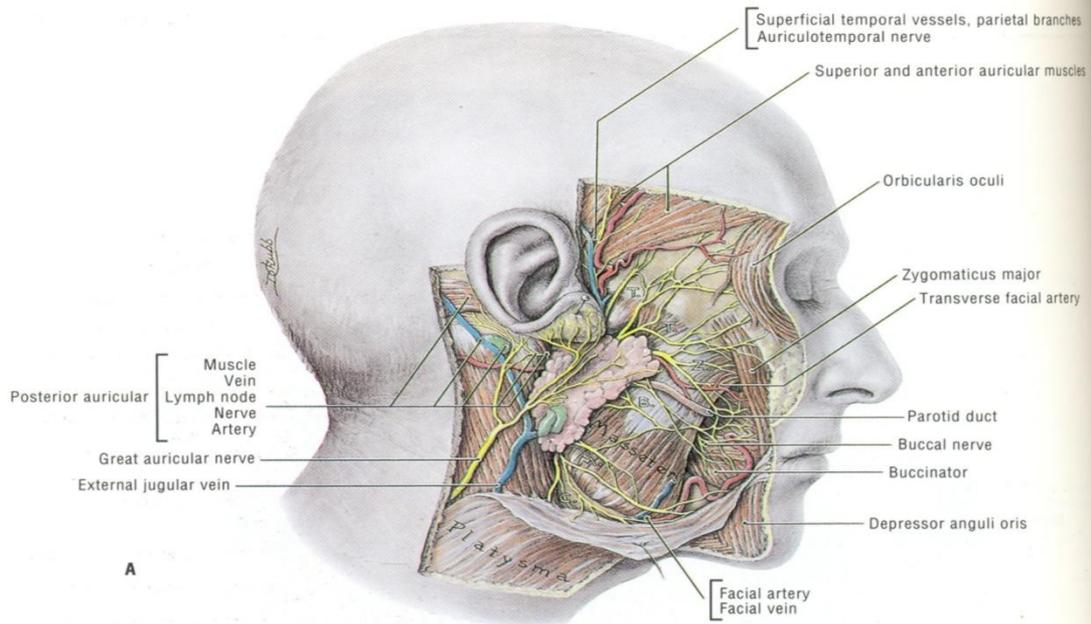
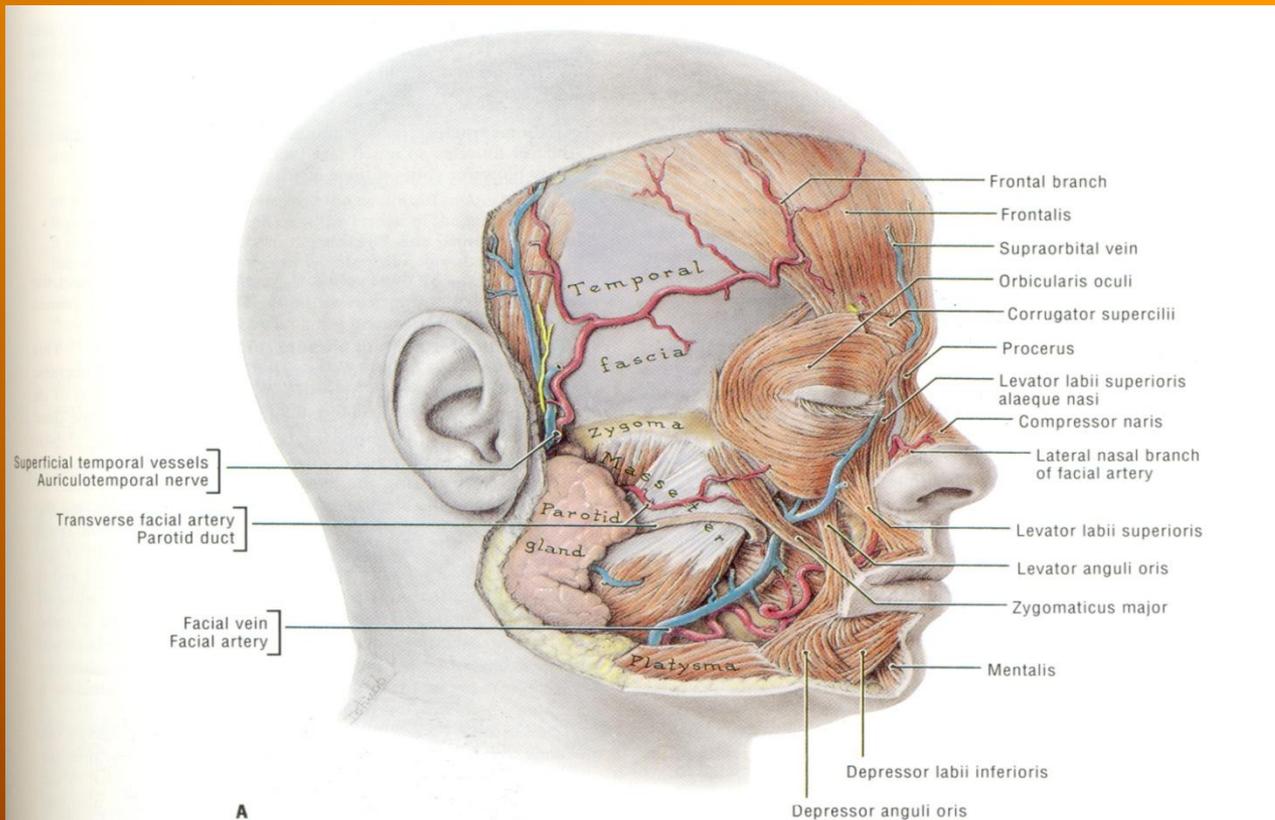


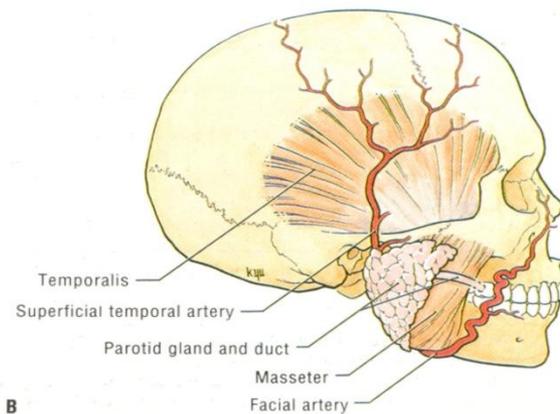
Fig. 29.11 The left parotid gland: anteromedial aspect.





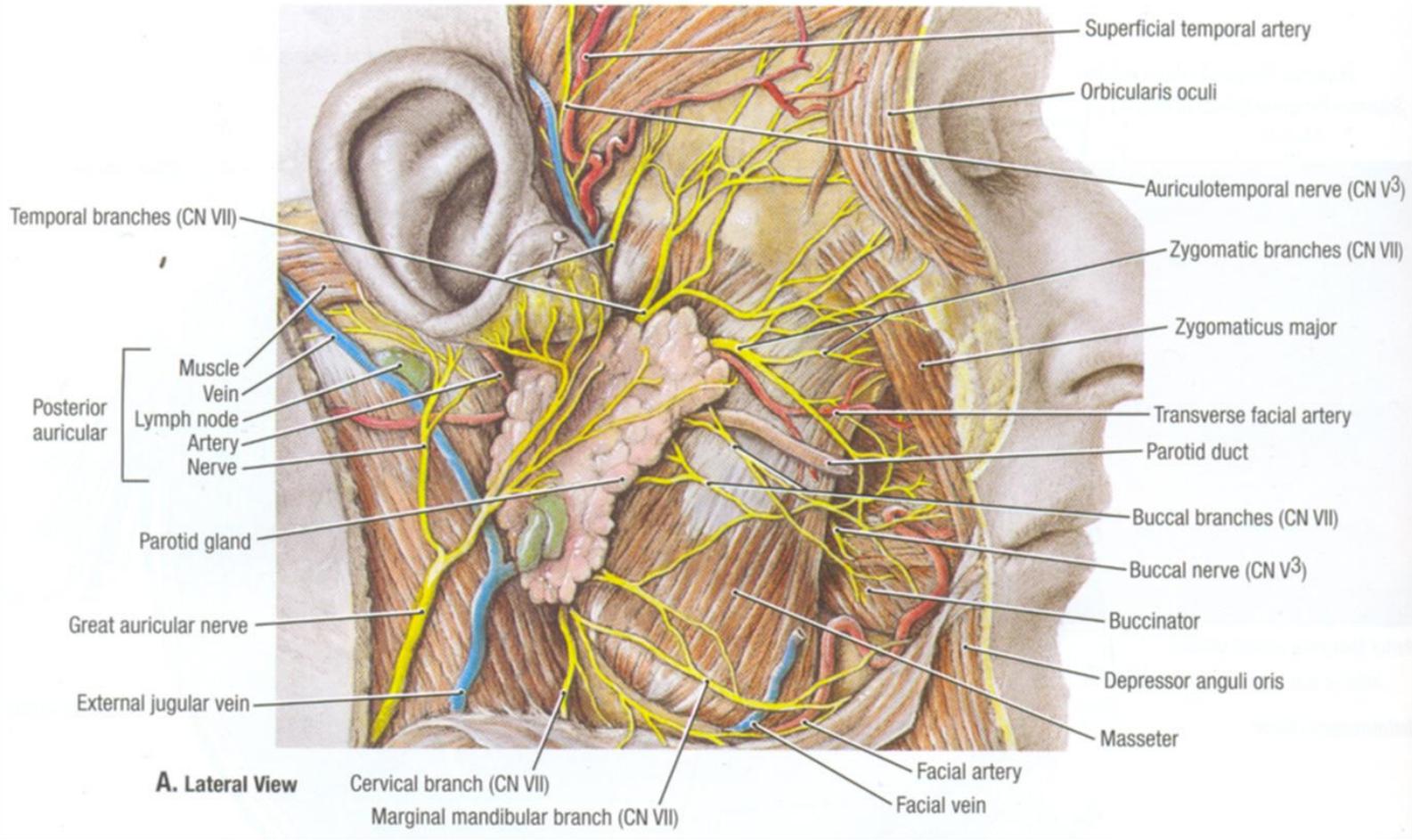


A



B

Figure 7-23. A, Lateral view of a dissection of the face of a young man, exposing the muscles of facial expression and the arteries of the face. The masseter, one of the muscles of mastication and a powerful closer of the mandible, is also shown. B, The parotid gland and the facial and superficial temporal arteries.



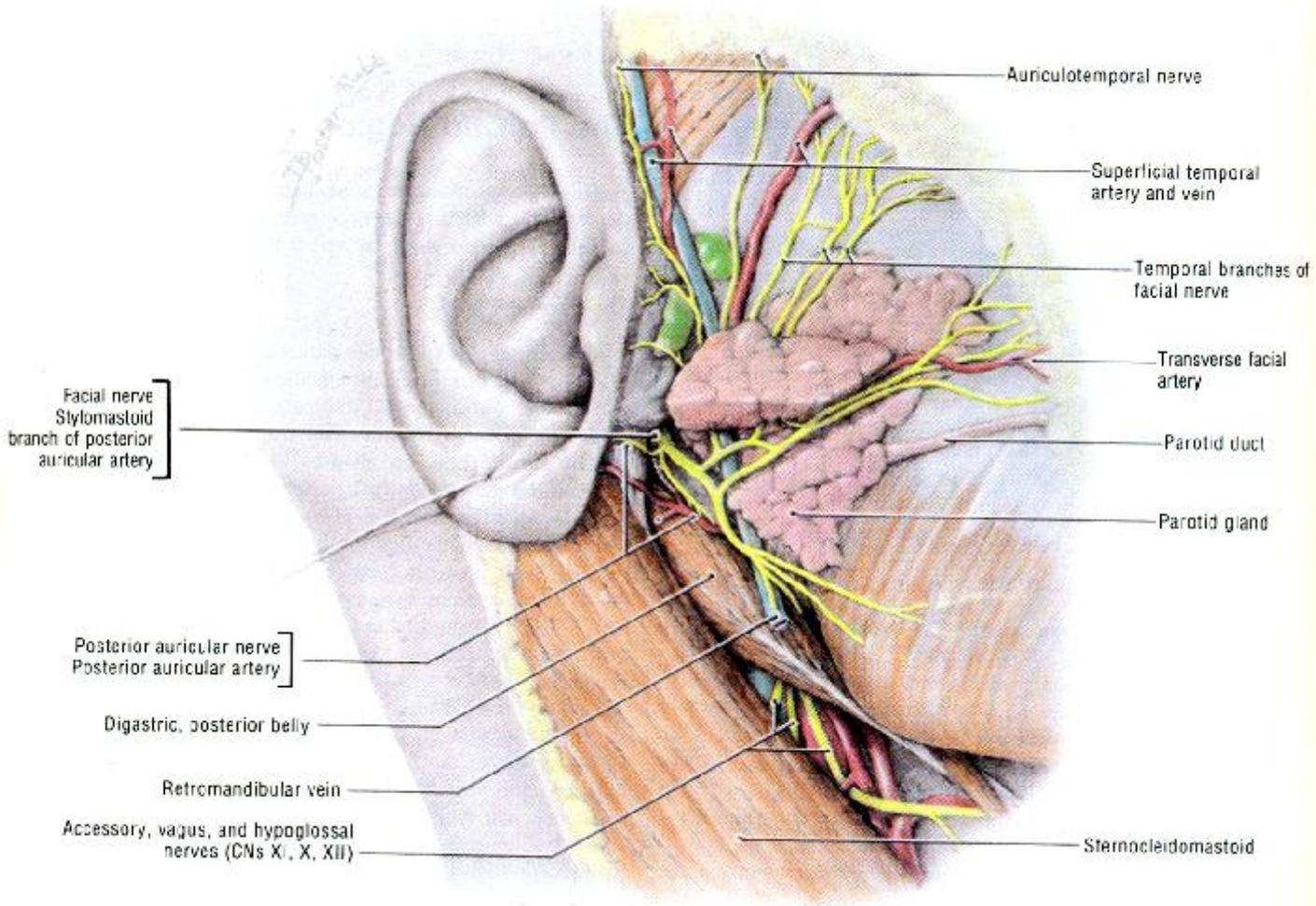
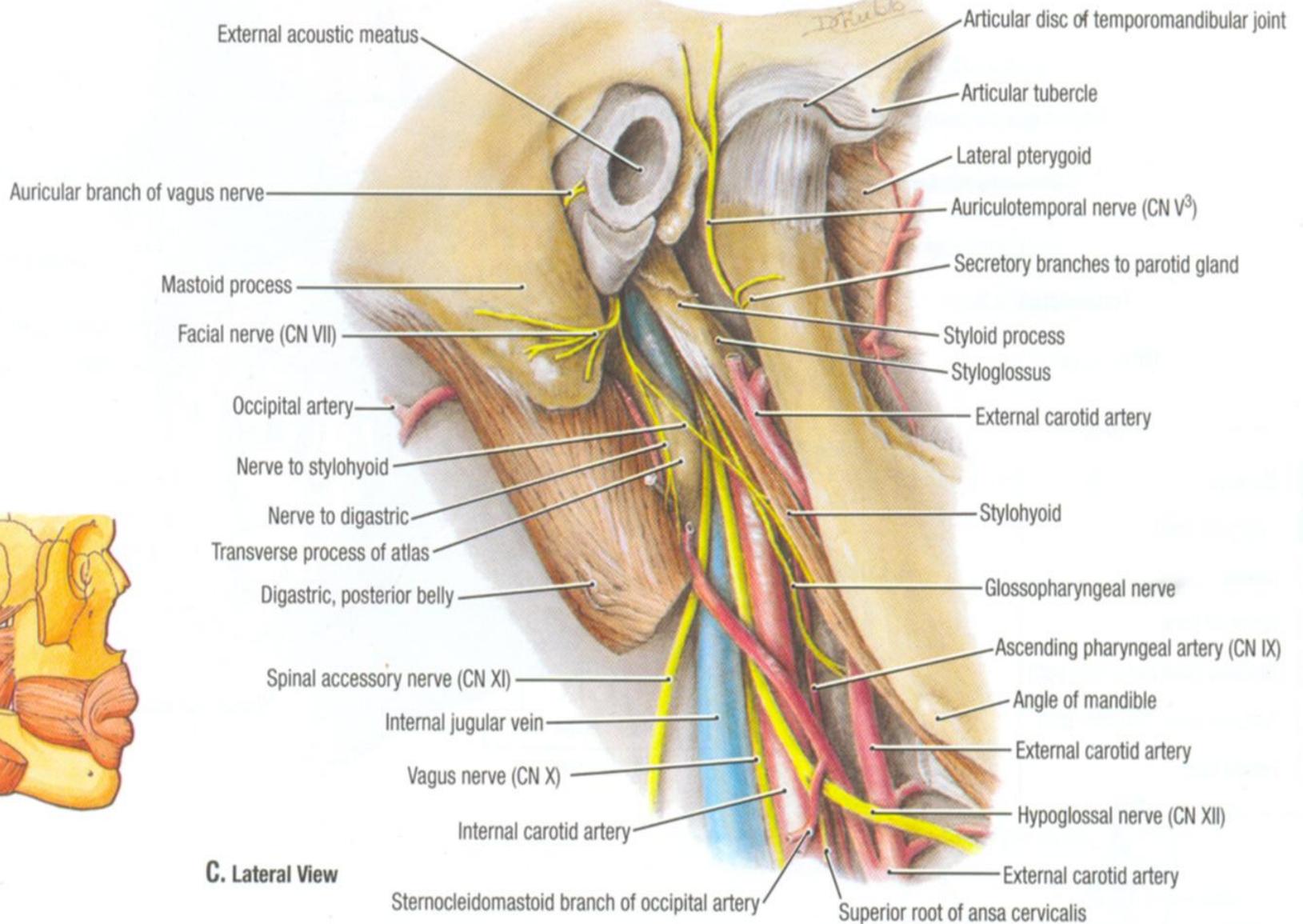
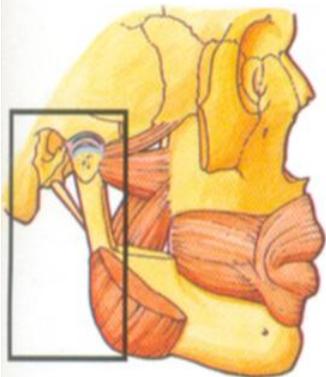
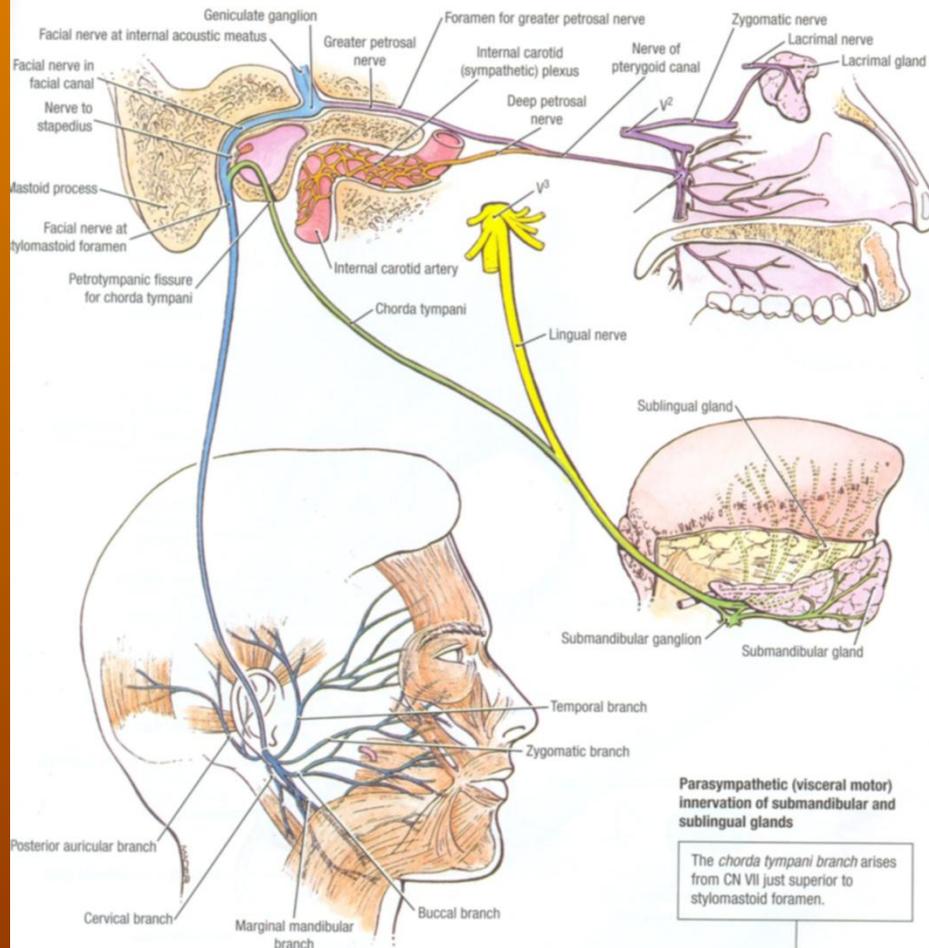


Figure 7-71. Dissection of the parotid region. Part of the parotid gland has been removed to expose the branches of the facial nerve (CN VII).



C. Lateral View



Parasympathetic (visceral motor) innervation of lacrimal gland

Greater petrosal nerve arises from CN VII at the geniculate ganglion and emerges from the superior surface of the petrous part of the temporal bone to enter the middle cranial fossa.

Greater petrosal nerve joins the deep petrosal nerve (sympathetic) at the foramen lacerum to form the nerve of the pterygoid canal.

Nerve of the pterygoid canal travels through the pterygoid canal and enters the pterygopalatine fossa.

Parasympathetic fibers from the nerve of pterygoid canal in the pterygopalatine fossa synapse in the pterygopalatine ganglion.

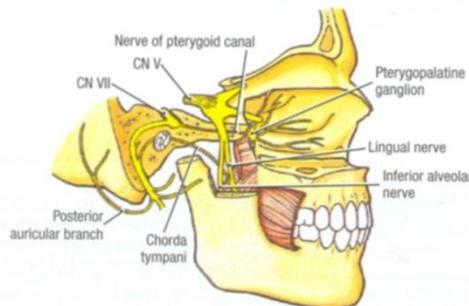
Postsynaptic parasympathetic fibers from this ganglion innervate the lacrimal gland via the zygomatic nerve of CN V² and the lacrimal nerve CN V¹.

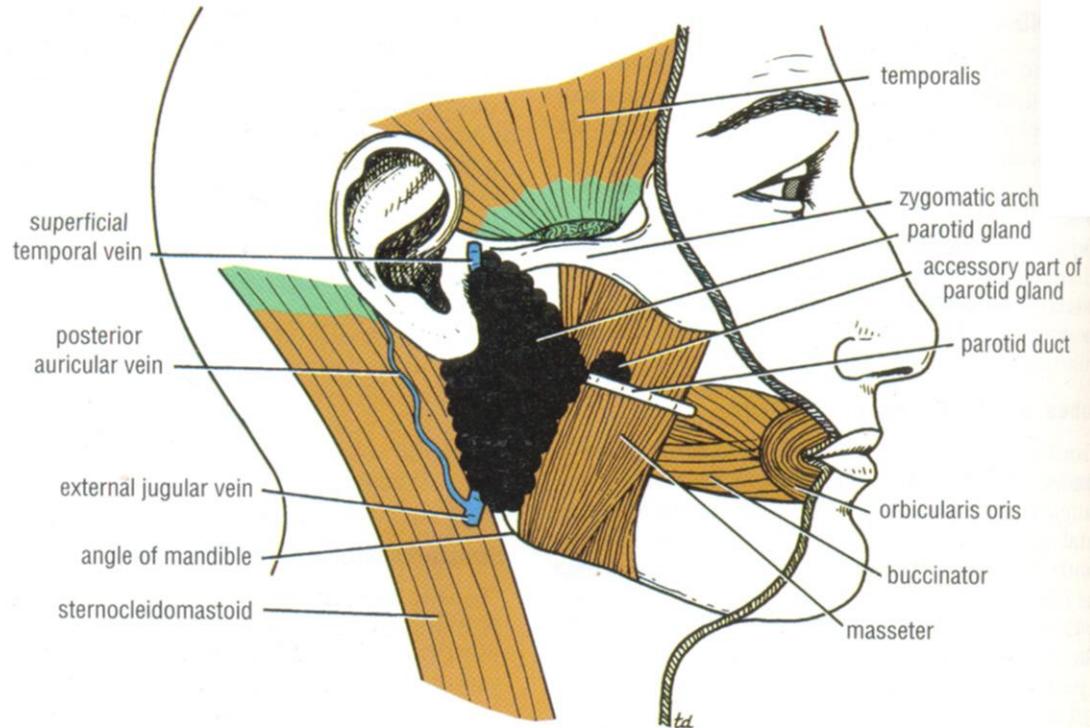
Parasympathetic (visceral motor) innervation of submandibular and sublingual glands

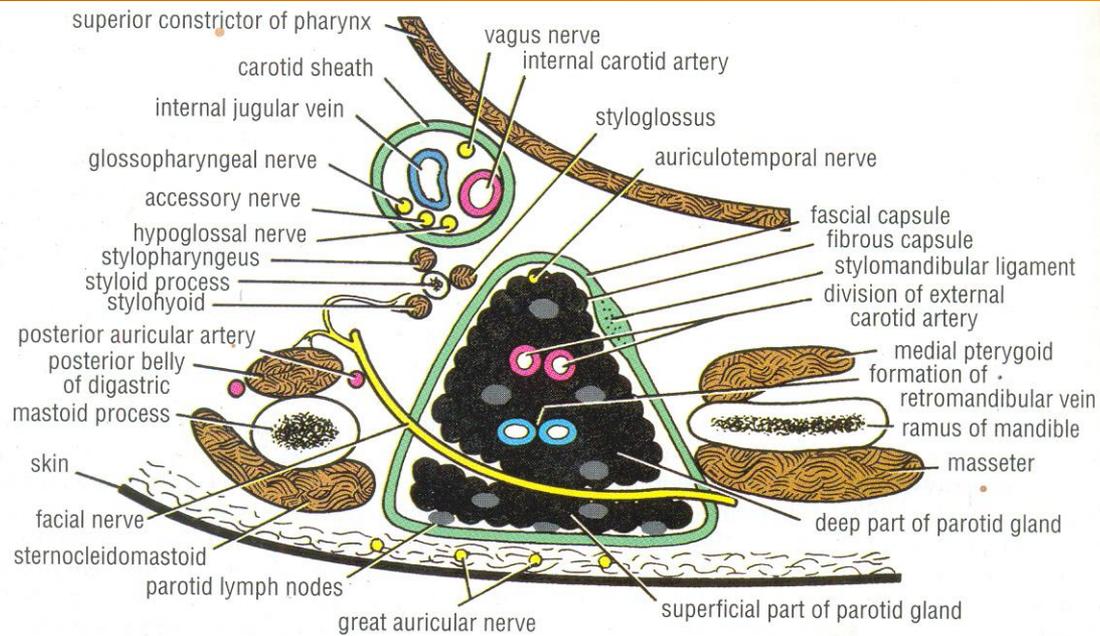
The chorda tympani branch arises from CN VII just superior to stylomastoid foramen.

The chorda tympani crosses the tympanic cavity medial to handle of malleus.

The chorda tympani passes through the petrotympanic fissure between the tympanic and petrous parts of the temporal bone to join the lingual nerve (CN V³) in the infratemporal fossa; parasympathetic fibers of the chorda tympani synapse in the submandibular ganglion; postsynaptic fibers follow arteries to glands.

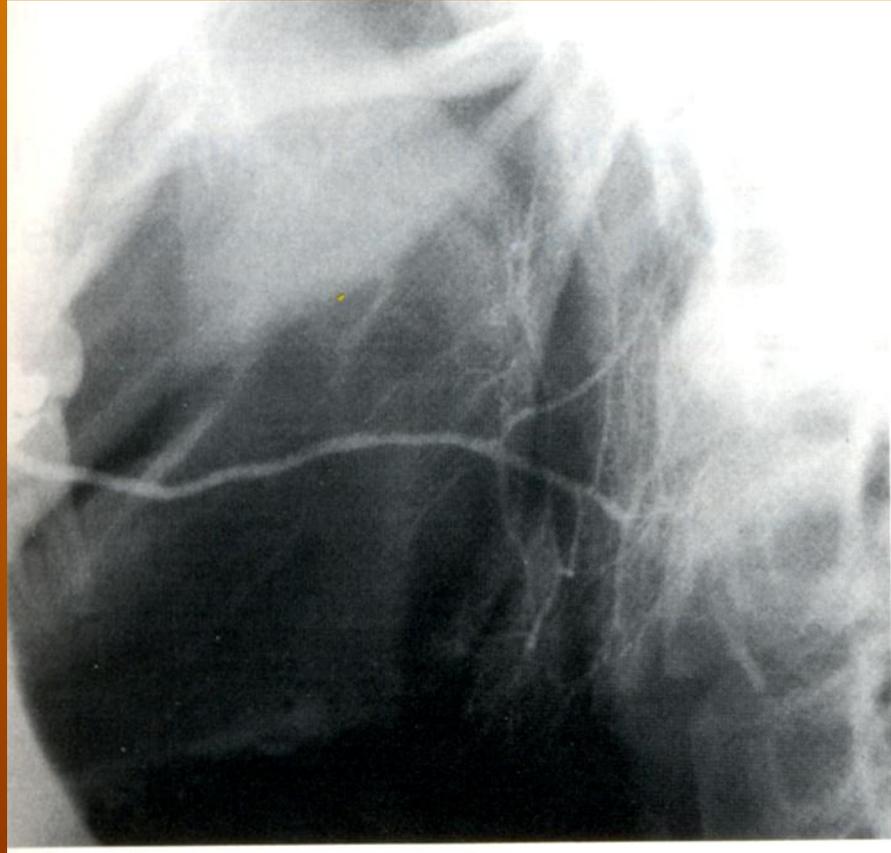






B

FIGURE 11-21 Parotid gland and its relations. (A) Lateral surface of gland and course of parotid duct. (B) Horizontal section of parotid gland.



Summary

- Par-otic - parotid
- Sandwiched between external acoustic meatus, TM Jt and ramus of mandible
- Anterior to tragus.
- Coverings- parotido- masseteric fascia
- Structures emerge from anterior border, apex, base .
- Relations-Superficial, superior, anteromedial, posteromedial surfaces

Summary

- Structures within the substance of the gland: facial nerve, vein, artery, fat and parotid lymph nodes.
- Parotid duct: emerges from its anterior border
- Nerve supply: Glossopharyngeal: parasympathetic, secretomotor, otic ganglion, auriculotemporal nerve

Nerve Supply

Inferior salivatory Nucleus



Glossopharyngeal nerve



Tympanic branch (middle ear)



Lesser petrosal nerve



Otic ganglion



Auriculotemporal nerve



Parotid gland

● **Applied :**

- ✓ **parotid swellings-extremely painful, (Parotid fascia)**
- ✓ **Drainage of parotid abscess**
- ✓ **Mumps**
- ✓ **Parotid neoplasms**
- ✓ **Surgical plane of parotid dissection-facial nerve**
- ✓ **Sialography,**
- ✓ **Blockage of duct-calculus**
- ✓ **Frey's syndrome**

1) All of the following structures pass through the Parotid gland **EXCEPT** the

- a) Auriculotemporal nerve
- b) Retromandibular vein
- c) Facial nerve
- d) External carotid artery

2) The nerve supplying
parasympathetic secretomotor fibres
to the Parotid gland is the

a) Facial

b) Glossopharyngeal

c) Mandibular division of the Trigeminal

d) Greater auricular

3) Regarding the Parotid gland, all of the following statements are correct EXCEPT that

- a) It is a predominantly serous type of salivary gland
- b) The parotid duct opens in the vestibule of the mouth opposite the upper second molar tooth.
- c) Damage to the facial nerve during parotid surgery leads to dryness of mouth
- d) Parotid gland swellings are extremely painful

4) All of the following structures emerge at anterior border of parotid gland except

- ◆ a) Transverse facial vessels
- ◆ b) Parotid duct
- ◆ c) Facial nerve branches
- ◆ d) Auriculotemporal nerve

5) Surgical plane of parotid dissection for parotidectomy is determined by

- ◆ a) Retromandibular vein
- ◆ b) External carotid artery
- ◆ c) Facial nerve branches
- ◆ d) Auriculotemporal nerve

1) The facial nerve controls all of the following functions **EXCEPT**

a) Lacrimation

b) Salivation

c) Facial expression

d) Taste sensation on the posterior one-third of the tongue

2) An injury to or pressure on the facial nerve within the parotid gland would result in

- a) Bell's palsy (infranuclear facial palsy)
- b) Loss of movements of eyeball
- c) Loss of movements of the mandible
- d) Loss of taste sensation on the anterior one-third of the tongue

3) All of the following are signs and symptoms of an injury to the facial nerve **EXCEPT**

a) A dry eye (loss of lacrimation)

b) Increased sensitivity to sound (hyperacusis)

c) Loss of taste sensation on the anterior one-third of the tongue

d) Ptosis (drooping of upper eyelid)

4) All of the following muscles receive motor innervation through the facial nerve EXCEPT

a) Orbicularis oculi

b) Posterior belly of the digastric

c) Stapedius

d) Myelohyoid

5) The foramen through which the facial nerve emerges onto the face is

- a) Ovale
- b) Stylomastoid
- c) Rotundum
- d) Lacerum