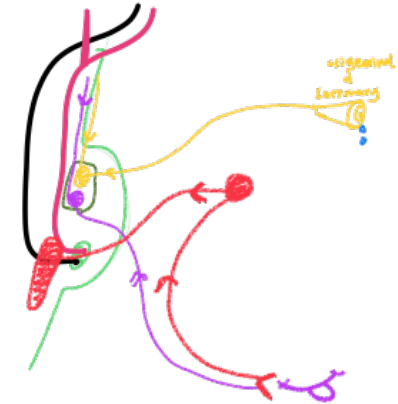


FACIAL NERVE (CN VII)			
1. Main Motor Nucleus	lies deep in the reticular formation of the lower part of the pons		<p>1-The part of the nucleus that supplies the muscles of the upper part of the face receives corticonuclear fibers from both cerebral hemispheres</p> <p>2-The part of the nucleus that supplies the muscles of the lower part of the face receives only corticonuclear fibers from the opposite cerebral hemisphere.</p>
2. Parasympathetic Nuclei	lie posterolateral to the main motor nucleus.	A. superior salivatory	<p>1- receives afferent fibers from the hypothalamus through the descending autonomic pathways.</p> <p>2-Information concerning taste also is received from the nucleus of the solitary tract from the mouth cavity.</p>
		B. lacrimal nuclei	<p>1-receives afferent fibers from the hypothalamus for emotional responses</p> <p>2-receives afferent fibers from sensory nuclei of the trigeminal nerve for reflex lacrimation secondary to irritation of the cornea or conjunctiva.</p>
3. Sensory Nucleus	upper part of the nucleus of the tractus solitarius and lies close to the motor nucleus		Sensations of taste travel through the peripheral axons of nerve cells situated in the geniculate ganglion on the seventh cranial nerve

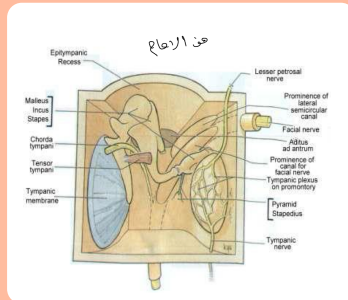
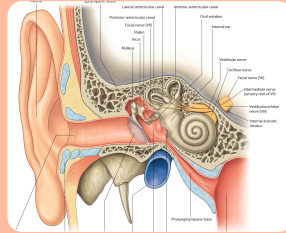


FACIAL NERVE (CN VII)			
Somatic Motor	<p>1- facial expressio</p> <p>2- auricular muscles.</p> <p>3- the posterior bellies of the digastric</p> <p>4- stylohyoid</p> <p>5- stapedius muscles.</p>		
Visceral (Parasympathetic) Motor:	presynaptic parasympathetic fibers to pterygopalatine ganglion	1- associated with the maxillary nerve (CN V2) which distributes its postsynaptic fibers, 2-the lacrimal glands	
	presynaptic parasympathetic fibers to the submandibular ganglion	1-associated with the mandibular nerve (CN V3) 2- the sublingual and submandibular salivary glands.	
General Sensory (Somatic)	1-small area of the skin of the concha of the auricle, close to external acoustic meatus.		
Special Sensory (Taste)		<p>1-Fibers carried by the chorda tympani join the lingual nerve</p> <p>2- taste sensation from the anterior two thirds of the tongue and soft palate.</p>	



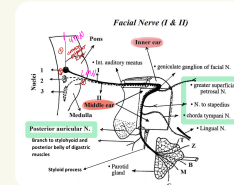
Course and relations;

A- Intracranial course of the facial nerve



(1) It leaves the cranial cavity by entering the internal auditory meatus.

(2) it runs through a bony canal (facial canal) inside petrous part of temporal bone as follows:



(a) It runs first laterally above the vestibule of the inner ear.

This sharp bend is called geniculum and carries the geniculate ganglion.

(b) Then, it bends sharply backwards above the promontory in the medial wall of middle ear cavity.

(c) Finally, it passes downwards behind the middle ear.

(d) It exits from the stylomastoid foramen.

B – Extracranial course of facial nerve:

(1) It leaves the facial canal through the stylomastoid foramen.

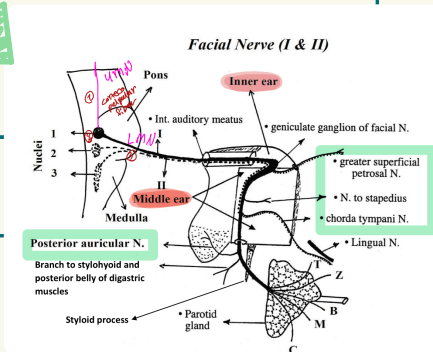
(2) It turns forwards making a curve around the lateral side of the styloid process.

lying superficial to external carotid artery and retromandibular vein



(3) It enters the posteromedial surface of parotid gland

(4) It ends inside the substance of the gland by dividing into 5 terminal branches



Branches

The sharp bend, the geniculum of the facial nerve is the site of the geniculate ganglion

sensory ganglion of CN VII

While traversing the temporal bone within the facial canal, CN VII gives rise to the:

Greater petrosal nerve.

Nerve to the stapedius.

Chorda tympani nerve.

CN VII emerges from the cranium via the stylomastoid foramen;

Gives off the posterior auricular branch

which gives rise to the following five terminal motor branches

Enters the parotid gland; and forms the parotid plexus

Temporal

Zygomatic

Buccal

Marginal mandibular,

Cervical

Facial Nerve (I & II)

