





### Nerve supply of the Face

ملاحظة:

هذا الملف للمراجعة وترتيب المعلومات فقط وليس مرجع للمذاكرة لانه ليست كل المعلومات متضمنة



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#### 1-TRIGEMNAL NERVE "5TH cranial nerve-MIXED":

Fibers	General somatic afferent :  "3 sensory nuclei"  Carrying general sensations from face.			Special visceral efferent : "only one motor Nuclei "	
Type of Nucleus	MESENCEPHALIC	PRINCIPAL SENSORY	SPINAL	Motor nucleus	
Location of the nucleus :	midbrain &pons	pons	pons, medulla & upper 2\3cervical segments of spinal cord.	Pons	
Function:	Receives proprioceptive from muscles of mastication.	receives touch from face & scalp	Receives pain & temperature sensations from face & scalp.	Supply muscles developed from the 1st pharyngeal arch 8 muscle "	
TRIGEMINAL GANGLION: Occupies a depression in the middle cranial fossa	Contains <b>cell bodies</b> Whose: <b>dendrites</b> ⇒ sensations from the face. <b>axons</b> ⇒ form the sensory root of trigeminal nerve.				
Course	Emerges from the middle of the ventral surface of the pons by 2 roots:  1-Large Lateral sensory. 2- small medial motor				

#### Division:

# OPHTHALMIC (SENSORY)

Divides into:3 branches:

Frontal: supplies skin of face & scalp.

Lacrimal: supplies skin of face & lacrimal gland.

Nasociliary: supplies skin of face, nasal cavity & eyeball

#### **Supplies:**

MAX/LLARY (SENSORY)

- Upper teeth, gums &
- maxillary air sinus
- (posterior, middle & anterior superior alveolar nerves).
- Face: (zygomaticofacial & infraorbital nerves).

#### **SENSORY BRANCHES:**

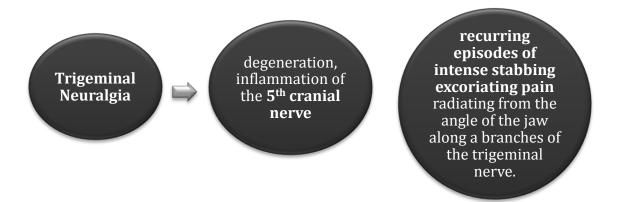
• Lingual:

MANDIBULAR (MIXED)

- General sensations from anterior 2/3 the of tongue.
- 2. Inferior alveolar:
- Lower teeth, gums & face.
- 3.Buccal: Face (cheek on upper jaw)
- 4. Auriculotemporal:
- auricle, temple, parotid gland & TMJ\*.
   MOTOR BRANCHES:

to 8 muscles (4 muscles of mastication & other 4 muscles

• TMG Temporomandibular joint .



#### For better understanding:

- 1- https://www.youtube.com/watch?v=UDEXvBbUOCk
- 2- https://www.youtube.com/watch?v=iJnYA20ntXE

## • FACIAL NERVE "MIXED 7th- (Motor, special sensory, parasympathetic)."

Fibers:	Special visceral <u>afferent</u>	Special visceral <u>efferent</u>	General visceral <u>efferent</u>		
Type of Nucleus:	nucleus solitaries " <b>medulla</b> "	Motor nucleus for facial nerve "pons"	superior salivatory nucleus.  "pons"		
Function:	receives taste from the anterior 2/3 of tongue.	Supplies muscles of face, from the 2 <sup>nd</sup> pharyngeal arch: posterior belly of digastric-stylohyoid-platysma- stapedius-occipitofrontalis.	send preganglionic parasympathetic secretory fibers to: -sublingual -submandibular -lacrimal -nasal & palatine glands.		
Course	Emerges from the <u>cerebellopontine angle</u> by 2 roots:  1-Medial motor root: contains motor fibers.  2-Lateral root: contains parasympathetic & taste fibers  Then → Passes through <u>internal auditory meatus</u> to inner ear where it runs in facial canal.  Then → Emerges from the <u>stylomastoid foramen</u> & enters the parotid gland where it ends.				
BRANCHES	In facial canal: 1-Greater petrosal nerve. 2-Chorda tympani. 3- Nerve to stapedius.	In stylomastoid foramen: 1-Posterior auricular. 2-Muscular branches to posterior belly of digastric & stylohyoid.	in parotid gland: 1-Temporal, 2-Zygomatic, 3-Buccal, 4-Mandibular&Cervical. To the muscle of face. " terminal branches "		

**Geniculate ganglion**: <u>contains</u> cell bodies of neurones; its fibers <u>carrying taste</u> <u>sensations</u> from anterior 2/3 of tongue; ending in solitary nucleus in M.O. <u>Lies</u> in internal acoustic meatus.



Damage of the facial nerve



Bell's Palsy

paralysis of muscles of facial expressions <u>lower motor</u>

neuron lesion

Face is distorted:
Drooping of lower eyelid,
Sagging of mouth angle,
Dribbling of saliva,
Loss of facial expressions,
Loss of chewing,
Loss of blowing,
Loss of sucking,
Unable to show teeth or close
the eye on that side

#### Note:

**\_lower motor neuron lesion:** whole face affected **upper motor neuron lesion:** upper face only is intact .

• For better understanding "4 min vedio":

https://www.youtube.com/watch?v=zGFyMspW8W4

ربي يوفقكم.