**\*ANATOMY \* INFRATEMPORAL FOSSA \* LEC.11**

* **Infratemporal fossa:** 🡪 **page #1** : notice : - head and neck of articular process of mandible
 - maxilla
 - Temporal process of zygomatic
 - zygomatic process of temporal
 - Greater wing of sphenoid :
 **🡪** **If we look at the greater wing of sphenoid in the middle cranial fossa, it will contribute in the lateral wall of the skull.
 🡪 then it will contribute in the floor of the skull by changing it’s direction
 “from vertical to horizontal”
 🡪 changing in direction from vertical to horizontal forms the “infratemporal crest”**

**Zygomatic arch**

* Roof of the infratemporal fossa : **- greater wing of sphenoid that contains :
 1. foramen ovale
 2. foramen spinosum “ant. to styloid process”**
* Pterygomaxillary fissure : **🡪 space between the maxilla and the pterygoid plate
 🡪 3rd part of maxillary artery enters through this fissure
 🡪 maxillary nerve enters this fissure to reach it’s synaptic pterygopalatine ganglion
 within the pterygopalatine fossa.
 🡪 also, it contains the medial nerve through the pterygoid canal "للمحترمين فقط (حكيم وحكيمة)"**
* Lateral pterygoid plate
* Posterior surface of maxilla: \* posterior superior alveolar foramen
* Sphenopalatine foramen
* Sphenomandibular ligament

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 \* **Notes :**
 🡪 the gate way of the infratemporal fossa is the ramus of the mandible “must be removed”.
 🡪 the gate way of the mandibular neve is the lateral pterygoid muscle. **"معلومة تم تسريبها من اللاب مجانا"**
 🡪 the anterior boundary of infratemporal fossa is the infratemporal surface of maxilla .
 “posterior surface of maxilla”, that contains the posterior superior alveolar **foramen.** 🡪 H & N : head and neck of the mandible “poaterior boundary”
 🡪 chorda tympani pitch hiking (associates) with the lingual nerve through it’s sleeve
 🡪 all ganglion in the head and neck are parasympathatic, except 3 pairs of sympathatic ganglia
 in the neck that are related to **sympathatic trunk** as : **- superior symp. ganglion
 - middle symp. ganglion
 - inferior symp. ganglion**

 🡪 sympathetic trunk extends from the base of the skul to the tip of the coccyx on both sides of VC.
 🡪 lateral pterygoid plate has 2 surfaces : **- lateral 🡪 for lateral pterygoid muscle “origin”
 - medial 🡪 for medial pterygoid muscle “origin”**

 🡪 **page #1** : notice :
 - Lateral pterygoid muscle
 - Medial pterygoid muscle

 🡪 **notes**:
 - you can’t open your mouth unless you protrude the mandible
 - TMJ articular disc divide the synovial joint of the mandible into: 1. Superior J. : for glinding (forward/backward)
 2. inferior J. :
 - Articular tubercle clutches the forward movement of the mandible
 - yawning is related to lateral pterygoid muscle
 - inner surface of ramus = medial surface
 - the **strong question** : how many muscles elevate the mandible? “3” : **1. Masseter
 2. Medial pterygoid
 3. Temporalis** - the strongest question: which is the powerful action of the mandible? 🡪 **ELEVATION, why?

 because it’s against gravity
 - ? means: if it presents ☺**

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 - ramus of the mandible
 - neck of the mandible
 - capsule of TMJ
 - external carotid artery gives the maxillary branch
 - maxillary artery :
 🡪 starts behind the neck of the mandible
 🡪 pass medial to the mandible
 🡪 then external to the outer surface “mostly” of lateral pterygoid muscle “divides it into 3 parts”
 🡪 then will continue to enter the fissure
 🡪 it’s parts : 1. First part “ from the neck to the lower border of lateral pterygoid”
 2. Second part “on the outer surface of lateral pterygoid”
 3. Third part “after entering the pterygopaltine fissure”

 🡪 **Notes**:
 - Auriculotemporal nerve: has 2 roots that for a shape similar to “**ring**” through which the middle meningeal
 artery pass through it “**see pic./ p.10**”
 - buccal artery from the second part of maxillary artery is for bucinator muscle
 - masseteric artery pass through the mandibular **notch** - palate is divided into 2 parts : 1. **Hard palate** 🡪 supplied from greater palatine artery
 2. **Soft palate** 🡪 supplied ftom lesser palatine artery

**Length of hard palate > soft palate
2 times longer**

 - posterior superior alveolar artery enters through the posterior superior alveolar foramen to supply the molars “upper”

 🡪 **Notes**:
 - infraorbital artery: \* passes through space then through canal to get outside the infraobital foramen
 \* gives 2 branches “within canal”: 1. Middle superior alveolar artery 🡪 for premolars
 2. Anterior superior alveolar artery 🡪 for canines and incisors

 \*emerges on the face through infraorbital foramen

 -sphenopalatine artery enters through a foramen to supplu tha palate
 - nerve to mylohyoid pierces the sphenomandibular ligament
 - before the inferior alveolar nerve passing the mandibular canal through the foramen, it gives a branch known as nerve to mylohyoid for : **1. Mylohyoid muscle
 2. Anterior belly of digastrics**

 **-** sphenomandibular ligament is the remnant of meckel’s cartilage of firs pharyngeal arch

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 #Hope everything is clear
 # fight for the top ☺

 done by : Dana ayman