**\*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 ☺**

**--------------------------------------------------------------------------------------------------------------------------------------------------------------------**  🡪 **page #1** : notice :  
 - 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