**\*ANATOMY \* Temperomandibular Joint \* LEC.12**

* **Temperomandibular Joint:** - When we talk about any joint, we must cover these main questions:
 **🡪 What articulating what?
 🡪 Are the articulated parts coverd by cartilage or not?
 🡪 What is the type of the joint?
 🡪 Is it synovial or not?
 🡪** **If it’s synovial, is there a synovial membrane or not?**
 **🡪** **Is there fibrous capsule or not?
 🡪 Is it strengthened by ligaments?
 🡪 what types of movements it can exert?**---------------------------------------------------------------------------------------------------------------------------------------

🡪**Page #2**: notice: - neck of the mandible
 - head of the mandible “covered by cartilage”
 - mandibular fossa of **temporal** bone “site where the head articulates”
 - Notes:
 🡪 the only joint in the body that is covered by “**fibro**cartilage”, because it’s multiply used.
 🡪 it’s **type** is synovial
 🡪 the break of the head of the mandible is the “articular tubercle”, tha clutches it.
 🡪 the synovial membrane is only on the wall, not on the articular parts.
 🡪 fibrous capsule is:

 1. **wide** superiorly …… attaches margins of mandibular fossa
 2. **tight** inferiorly …… attaches the neck of the mandible

 🡪 since TMJ is formed of 2 subjoints:

 1. **Superior J**. ….. backward/ forward
 2. **Inferior J**. …… hinge movement (up/down)

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**🡪Page #1**: notice:
 - here the mouth will open
 - opening of the mouth requires 2 movements: 1. Protrusion “first”
 2. Depression “second”
 - surfaces of the articular disc must be **compatible** with the articular surfaces, meaning
 if the surface is :
 - convex 🡪 it must articulate with concave one “fossa”
 - concave 🡪it must articulate with convex one “head”

 - actually both surfaces of the disc are **concavoconvex** :
 - superiorly : from anterior to posterior
 - inferiorly : from posterior to anterior

 🡪**Page #2**
 - the distance that the mandible can move backward and forward is only from the mandibular fossa to the articular tubercle “and vice versa”.

 - Hinge-like rotation means : 1. Protrusion then depression
 - opening mouth requires “at first” forward movement of : 1. Disc
 2. Head of mandible
 3. Upper jaw
 - Why lateral pterygoid? ,,, because of it’s insertion “recall”

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 🡪**Page #3:** - lateral dislocation “by hitting” of the mandible is difficult in normal closed mouth , because it’s strengthened **laterally** TM ligament.
 - lateral dislocation can be achieved “by hitting” during **yawning**.
 - why the inferior attachment of the capsule is to the “neck” of the mandible? 🡪 **best site for catching it firmly against gravity “tight”**
 🡪**Page #4:
 \*Temporomandibu;ar ligaments:** - lateral TML is **oblique** 🡪**Advanced for “7akeem and 7akeemeh مش مهم :** - case of the J. in a pic.: - original location, then
 - when the right side of the mandible is shifted to the right.

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**How is that achieved?

by lateral pterygoid**