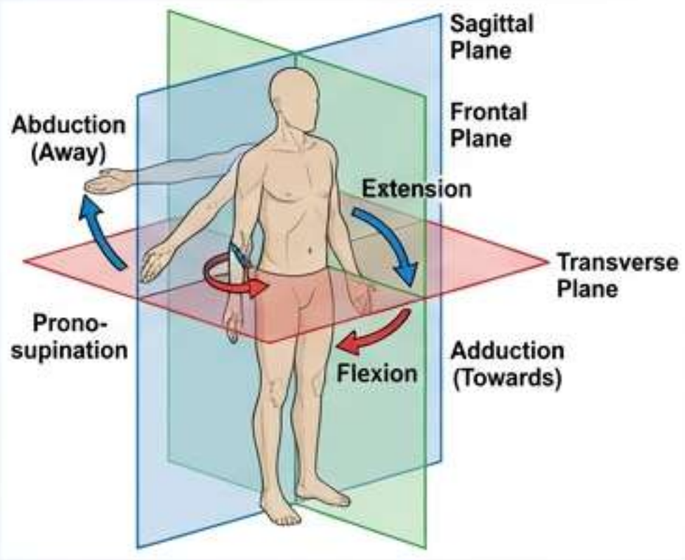
Question 01 | Source: EMD 1-2023 (Q15)

Regarding the movements of synovial joints:
A- All movements occur around a plane in an axis.
B- Flexion and extension movements occur along a vertical axis in a sagittal plane.
C- Abduction involves moving a body part away from the median plane.
D- A spheroid (ball-and-socket) joint has three axes of mobility.
E- Prono-supination allows rotation of one limb part relative to another.

Correct Answer: C, D, E

Professional Explanation:
Abduction is defined as movement *away* from the central axis (frontal plane). **Spheroid joints** (like the hip/shoulder) are multiaxial (3 axes), allowing the greatest range of motion. **Prono-supination** is a rotational complex (radius over ulna). *Correction for B:* Flexion/Extension occurs in the **sagittal plane** but rotates around a **transverse axis**, not vertical.



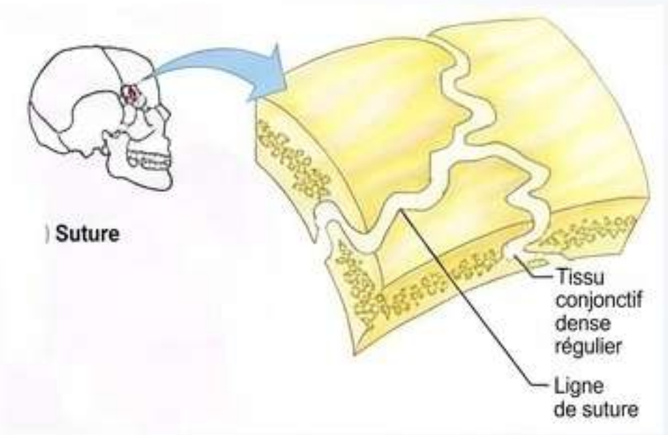
Mnemonic Box:
ABDuction = **ABD**uct (to take away).

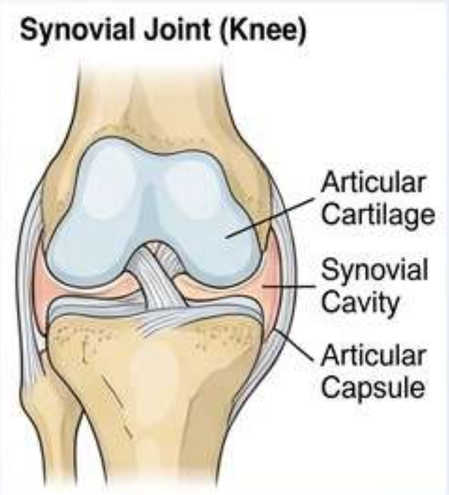
Question 02 | Source: EMD 1-2023 (Q16)

Regarding joints:
A- There are 3 types: fibrous, cartilaginous, and synovial.
B- All joints are mobile.
C- Gomphoses and synchondroses are fibrous joints.
D- Fibrous joints are immobile.
E- All joints with cartilage have a joint cavity.
E- All joints with cartilage have a joint cavity.

Correct Answer: A, D

Professional Explanation:
Joints are classified morphologically into **Fibrous** (Synarthrosis/Immobile), **Cartilaginous** (Amphiarthrosis/Semi-mobile), and **Synovial** (Diarthrosis/Mobile). *Correction for C:* Gomphosis is fibrous, but **Synchondrosis** is cartilaginous. *Correction for E:* Cartilaginous joints have cartilage but **lack** a cavity; only synovial joints have a cavity.





Mnemonic Box:
Fibrous = **F**ixed. **S**ynovial = **S**lippery.

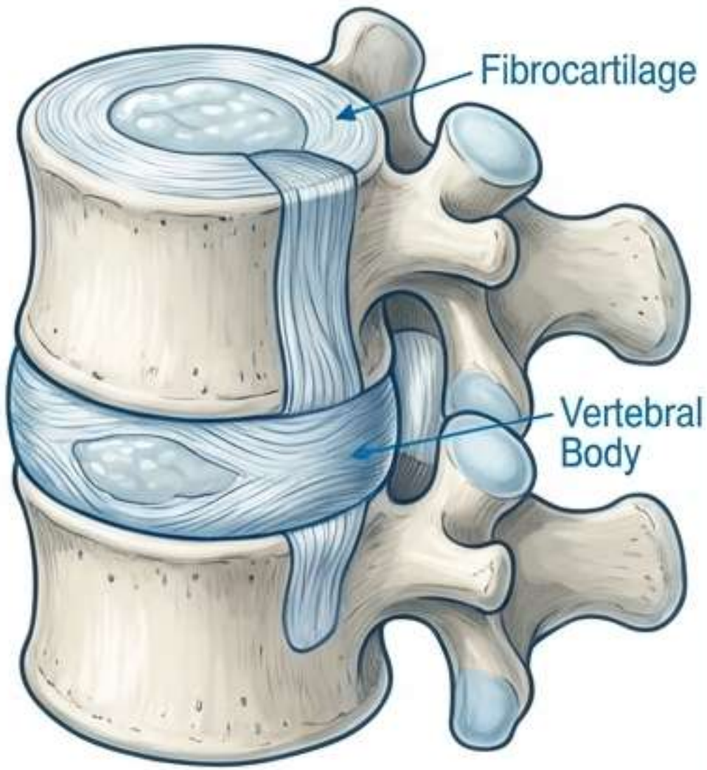
Question 03 | Source: EMD 1-2023 (Q17)

Regarding semi-mobile joints:
A- Are named synarthroses.
B- Are joints with multiple degrees of freedom.
C- Are named amphiarthroses.
D- Absence of a central joint cavity.
E- The shoulder joint is the typical example.

Correct Answer: C, D

Professional Explanation:
Amphiarthroses are semi-mobile joints characterized by the interposition of fibrocartilage (discs/pads) between bones. They strictly **lack a synovial cavity** (unlike diarthroses).

The shoulder is a diarthrosis (highly mobile), whereas the **Pubic Symphysis** is a typical amphiarthrosis.



Amphiarthrosis: Solid Union

Amphi = 'Both' or 'Between' (Between immobile and mobile).

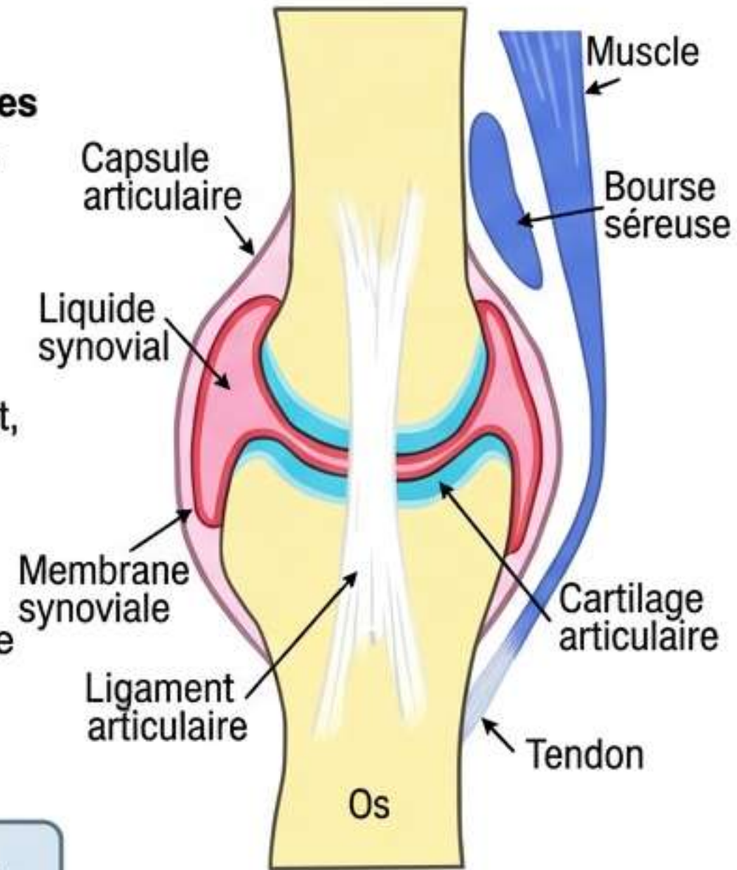
Question 04 | Source: EMD 1-2023 (Q14)

Regarding synovial joints:
A- Are diarthroses.
B- Are slightly mobile.
C- Present a capsule and ligaments.
D- The synovial membrane lines the external face of the capsule.
E- The articular surfaces are not covered with cartilage.

Correct Answer: A, C, E

Professional Explanation:
Synovial joints are **Diarthroses** (freely movable). Structurally, they require a fibrous **capsus capsule** and reinforcing **ligaments**.

Professor's Warning: The Exam Key marks E as correct, though physiologically, articular surfaces *are* covered by hyaline cartilage to reduce friction. The **synovial membrane** lines the *internal* face of the capsule.



Diarthrosis = **Dle**-hard mover.
Membrane = **Internal** Wallpaper.

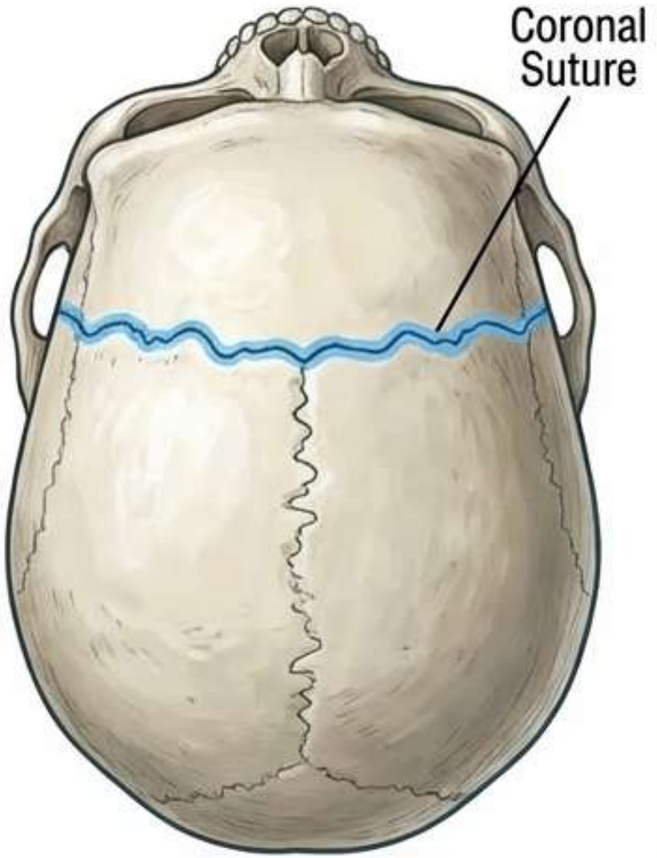
Question 05 | Source: EMD 1-2022 (Q11)

Regarding generalities on joints:
Synarthroses:
A- Are semi-mobile joints.
B- Possess a capsule.
C- The vertebral column is a series of synarthroses.
D- The coronal suture is a fronto-parietal junction of the synarthrosis type.
E- The temporomandibular joint is not a synarthrosis.

Correct Answer: D, E

Professional Explanation:

Synarthroses are immobile, fibrous joints. The **Coronal Suture** (connecting frontal and parietal bones) is a classic suture type of synarthrosis. The The **Temporomandibular Joint (TMJ)** is mobile (synovial), making **E** correct.



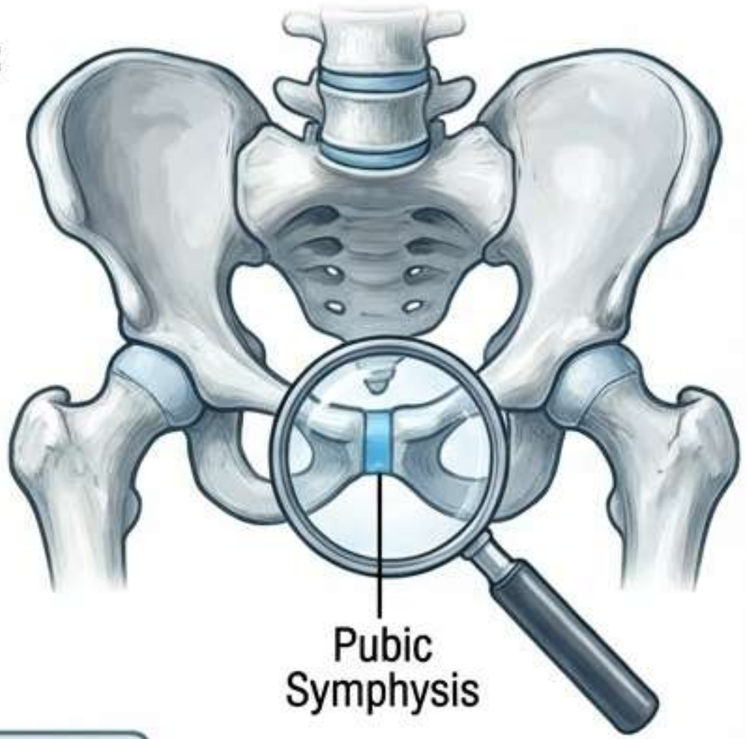
Mnemonic Box:
Synarthrosis = **Sin** to move.
Suture = **Sewn** shut.

Question 06 | Source: EMD 1-2022 (Q12)

Regarding generalities on joints:
Amphiarthroses.
A- Sont toutes dotées d'un disque interarticulaire.
B- The pubic symphysis is an amphiarthrosis.
C- They are immobile.
D- They present a synovial membrane.
E- They are equipped with passive ligaments.

Correct Answer: B

Professional Explanation:
The **Pubic Symphysis** is the archetype of an **Amphiarthrosis** (cartilaginous) (cartilaginous). They do *not* have a synovial membrane/cavity and are not immobile. Their defining feature is the fibrocartilaginous union.



Mnemonic Box:
Pubic **S**ymphysis = **P**artially **S**tiff.

Question 07 | Source: EMD 1-2022 (Q13)

Regarding generalities on joints: Diarthroses
A- Most joints of the locomotor apparatus are diarthroses.
B- They are all very mobile.
C- They are lubricated by synovial fluid secreted by the capsule.
D- They present active ligaments which are peri-articular muscular tendons.
E- They possess six varieties depending on the shape of articular surfaces.

Correct Answer: A, D

Professional Explanation:

Diarthroses (synovial joints) dominate the locomotor system (A). Muscles and their tendons act as **active ligaments** (D) to stabilize and move the joint, distinguishing them from passive fibrous ligaments.

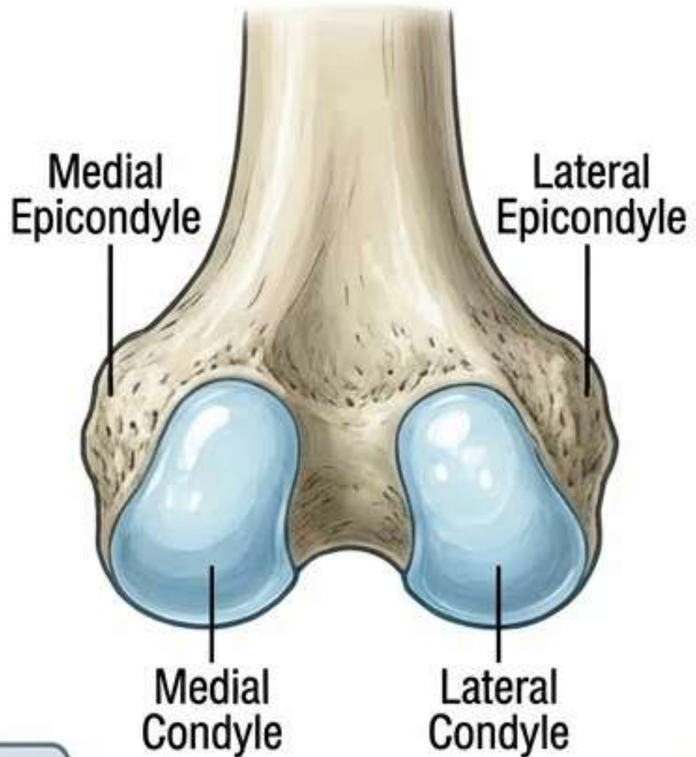
Mnemonic Box:
Active Ligaments = **Act**ion (Muscles).

Question 08 | Source: EMD 1-2021 (Q14)

Among these eminences, which one is articular:
A- Tuberosity
B- Protuberance
C- Condyle
D- Spine
E- Tubercle

Correct Answer: C

Professional Explanation:
Bony landmarks are divided into articular (joint surfaces) and non-articular (attachment sites). A **Condyle** is a rounded articular projection (e.g., femoral condyle). Tuberosities, spines, and tubercles are roughened prominences for **muscle attachment**, not articulation.



Mnemonic Box:
Condyle = **C**onnects (Articular).

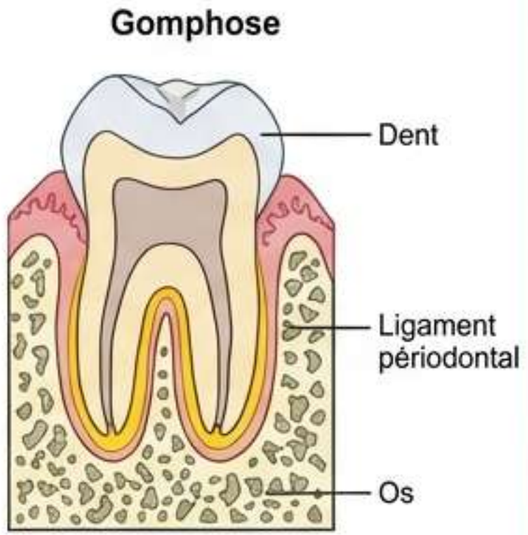
Question 09 | Source: EMD 1 2021 (Q16)

Fibrous joints are characterized by:

A- Absence of mobility.
B- The presence of articular cartilage.
C- The presence of fibrous tissue.
D- Skull sutures are synarthroses.
E- The gomphosis unites a tooth to an alveolus.

Correct Answer: A, C, D, E

Professional Explanation:
Fibrous joints are defined by Fibrous joints are defined by **fibrous connective tissue** uniting bones (C), resulting in **immobility** (A). Classic examples include **Sutures** (D) and **Gomphosis** (dento-alveolar joint) (E). They lack articular cartilage.



Gomphosis = **Gum**-phosis (Teeth).

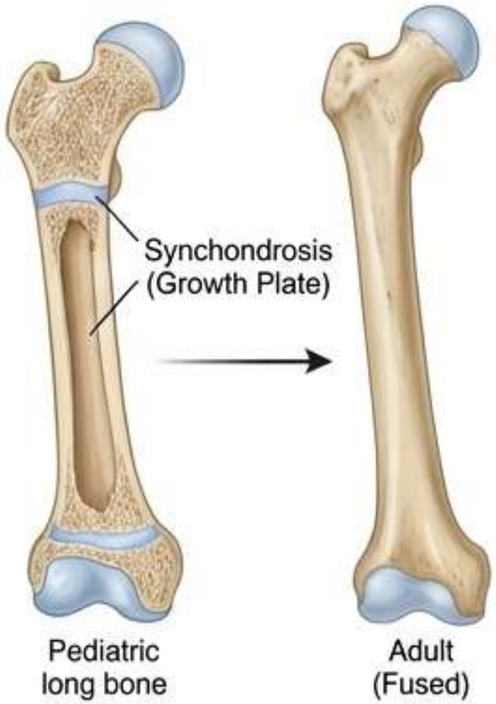
Question 10 | Source: EMD 1 2021 (Q17)

Cartilaginous joints:

A- Bone surfaces are covered by fibrous tissue.
B- Sont très mobiles.
C- Synchondroses are diaphyso-epiphyseal joints.
D- The pubic symphysis is a semi-mobile joint.
E- They are characterized by the absence of a joint cavity.

Correct Answer: C, D, E

Professional Explanation:
Cartilaginous joints include **Synchondroses** (growth plates/diaphyso-epiphyseal) and **Symphyses**. They are **semi-mobile** (D) and strictly lack a **joint cavity** (E). Synchondroses are temporary joints allowing growth, bone growth.



Synchondrosis = **Chondro** (Cartilage). **Growth Plate.**

Question 11 | Source: EMD 1 2021 (Q18)

Synovial joints:
A- Are diarthroses.
B- Are slightly mobile.
C- Present a capsule and ligaments.
D- The synovial membrane lines the external face of the capsule.
E- The articular surfaces are covered by cartilage.

Correct Answer: A, C, E

Professional Explanation:
Synovial joints are **Diarthroses** (A), structurally defined by a **capsule** and **ligaments** (C). The bone ends are capped with **hyaline cartilage** (E) to prevent bone-on-bone grinding.
Note Unlike Q4, this question correctly identifies the presence of cartilage.

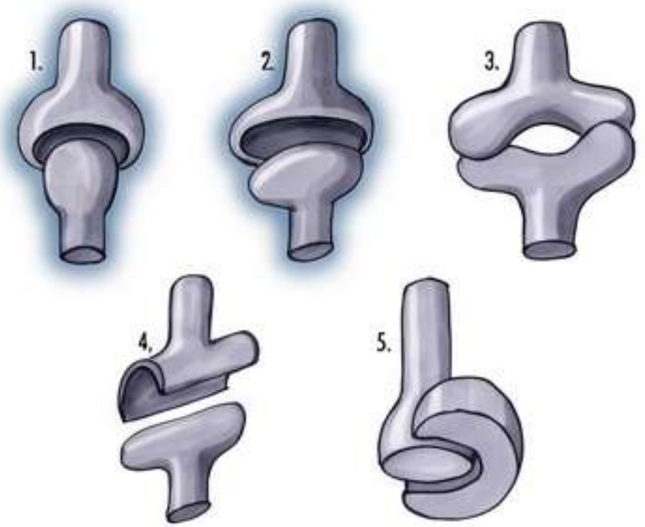
Synovial features: **C.C.C.** (Capsule, Cavity, Cartilage).

Question 12 | Source: EMD 1 2021 (Q19)

Synovial joints:
A- The geometric shape of articular surfaces determines movement amplitude.
B- The spheroid joint presents only 1 free axis.
C- The scapulo-humeral joint is a plane joint.
D- The elbow joint presents 3 axes of mobility.
E- The wrist is a synovial joint.

Correct Answer: A, E

Professional Explanation:
Morphology dictates function: The shape of the bone (A) allows specific movements (e.g., hinge vs. ball).
The **Wrist** is a standard synovial joint.
Corrections:
Spheroid has **3** axes.
Elbow is a **Hinge** (1 axis).



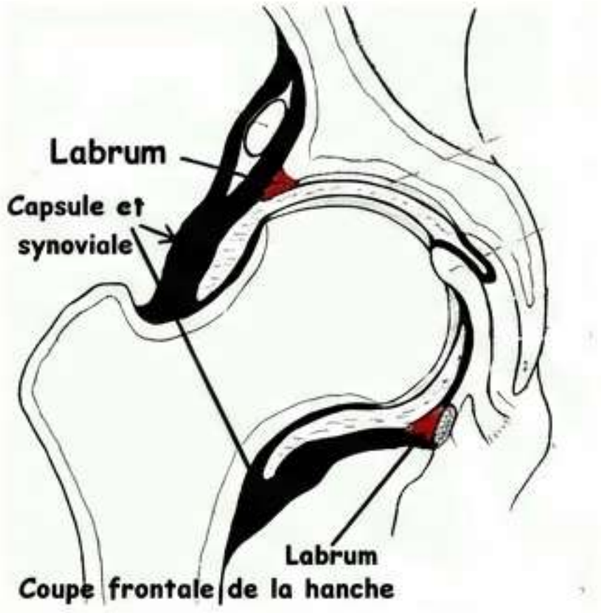
Shape sets the **Scope** (Range of Motion).

Question 13 | Source: EMD 1 2021 (Q20)

Synovial joints:
A- Adaptation surfaces are fibro-cartilages.
B- Adaptation surfaces ensure connection between articular surfaces.
C- The meniscus is present outside the joint capsule.
D- The disc is a fibro-cartilaginous ring.
E- Abduction is a movement that brings the limb towards the body axis.

Correct Answer: A

Professional Explanation:
Adaptation structures (Labrum, Meniscus, Disc) are made of **Fibrocartilage** (A) and are used to improve the fit (congruence) between bones.
Correction for C: Menisci are **intra-capsular**.



Adaptation = Adjusting the fit.

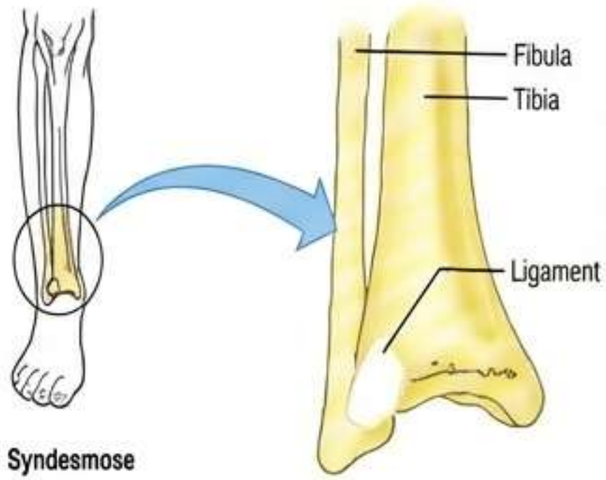
Question 14 | Source: EMD 2 2020 (Q01)

The fibrous joint is characterized by:

A- Absence of mobility.
B- Also called: syndesmosis.
C- The articular interzone is occupied by adipose tissue.
D- The presence of articular cartilage.
E- Gomphosis is a fibrous joint uniting 2 bone surfaces by a ligament.

Correct Answer: A

Professional Explanation:
The defining functional characteristic of fibrous joints (Synarthroses) is the **absence of mobility** (A).
Correction for B: Syndesmosis is just *one type* of fibrous joint (ligamentous union), not the general name for the whole class.



Fibrous = Fixed.

Question 15 | Source: EMD 2 2020 (Q02)

Concernant l'articulation cartilagineuse :

A- Les surfaces osseuses sont recouvertes par un tissu fibreux.

B- Elles sont unies par des tendons des muscles.

C- Presence d'une cavité articulaire centrale.

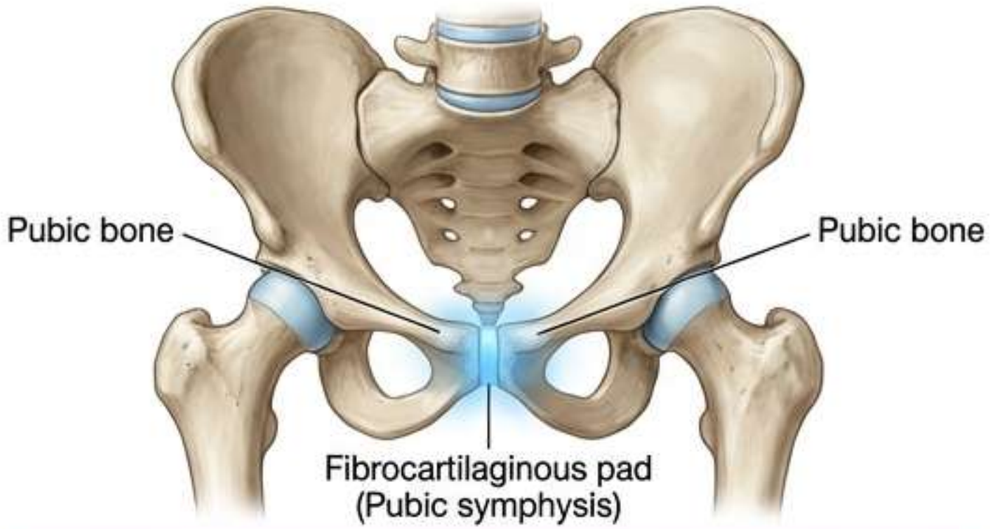
D- Très mobile.

E- La Symphyse pubienne est un exemple type.

Correct Answer: E

Professional Explanation:

The **Pubic Symphysis** is the classic clinical example of a cartilaginous joint (Symphysis type). It is semi-mobile and uses a fibrocartilaginous pad. It definitely does **not** have a joint cavity (**C**).



Symphysis = **S**andwich (Bone - Cartilage - Bone).

Question 16 | Source: EMD 2 2020 (Q06)

About the synovial joint:

A- Also called: synarthrosis.

B- Very slightly mobile.

C- Articular surfaces are covered by hyaline cartilage.

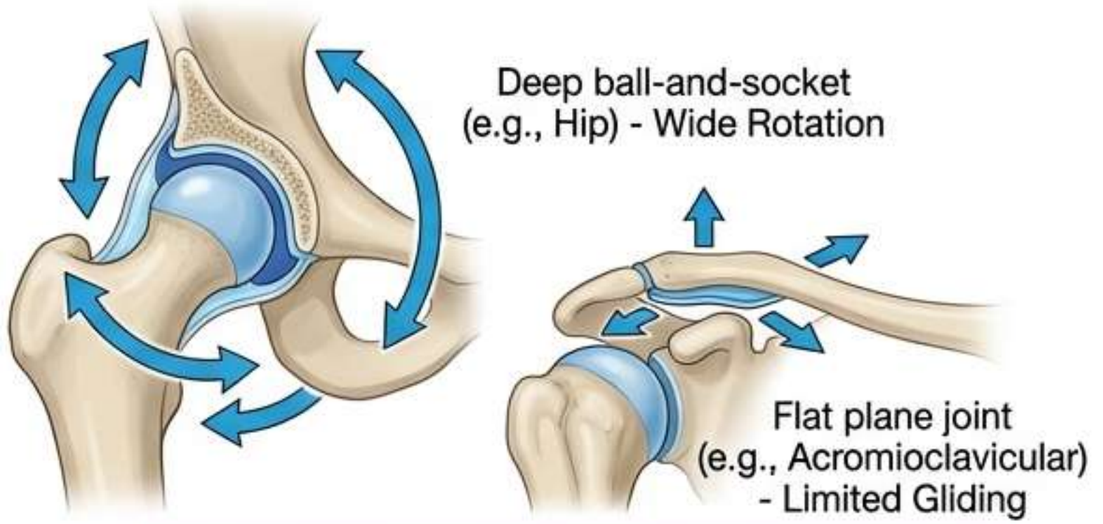
D- Absence of a joint cavity.

E- The geometric shape of articular surfaces determines movement amplitude.

Correct Answer: C, E

Professional Explanation:

Synovial joints rely on **Hyaline Cartilage** **(C)** for smooth gliding. The **Geometry** of the bones (**E**) (e.g., a deep cup vs. a shallow saucer) dictates how far and in what direction the joint can move.



Hyaline = **High** shine.

Question 17 | Source: EMD 1 2019 (Q06)

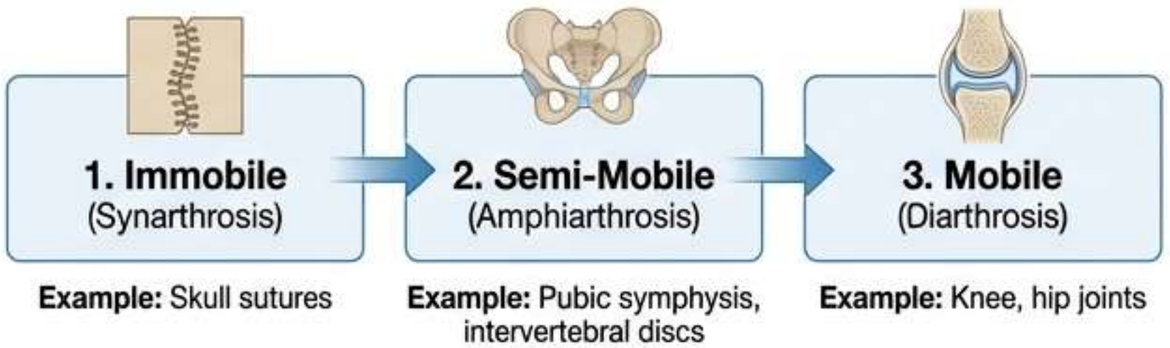
About joints:
A- They unite two or more bone surfaces.
B- There are 3 types according to their degree of mobility.
C- All joints possess a joint cavity.
D- Their movement is ensured by a ligament system.
E- The fluid…

Correct Answer: A, B, E

Professional Explanation:

Definition: A joint is the union of two or more bones (A). Classification is functional: Immobile, Semi-mobile, Mobile (3 types - B). Synovial fluid (E) is crucial for diarthroses.
Correction for D: Movement is ensured by **muscles**; ligaments restrict/stabilize.

Joint Classification



Mnemonic: Joint = Junction.

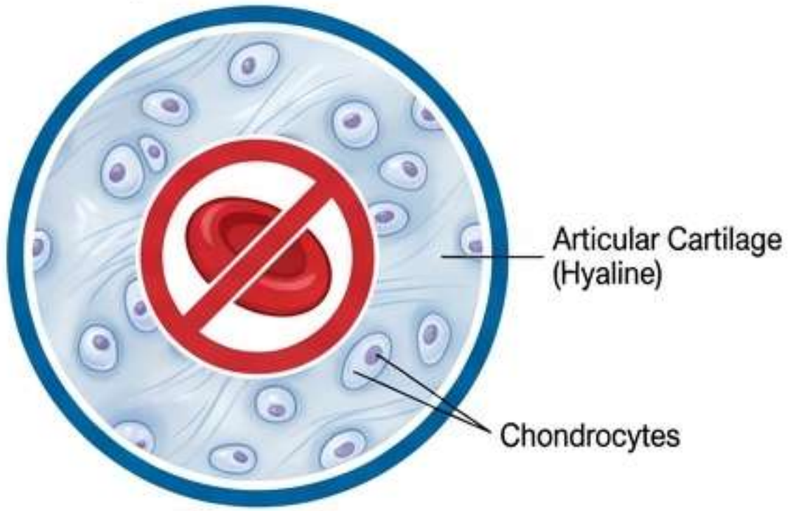
Question 18 | Source: EMD 1 2018 (Q06)

These propositions concern joints:
A- Ensure skeletal movement.
B- There are 4 types according to their degree of mobility.
C- The joints of the locomotor apparatus are all mobile.
D- They unite two or more bone surfaces.
E- Articular cartilage is a richly vascularized tissue.

Correct Answer: A, C, D

Professional Explanation:

Joints allow the skeleton to move (A) and connect bones (D).
Important Pathology Note: Articular cartilage is **Avascular** (no blood supply), which is why it heals poorly. It is *not* richly vascularized (E is False).



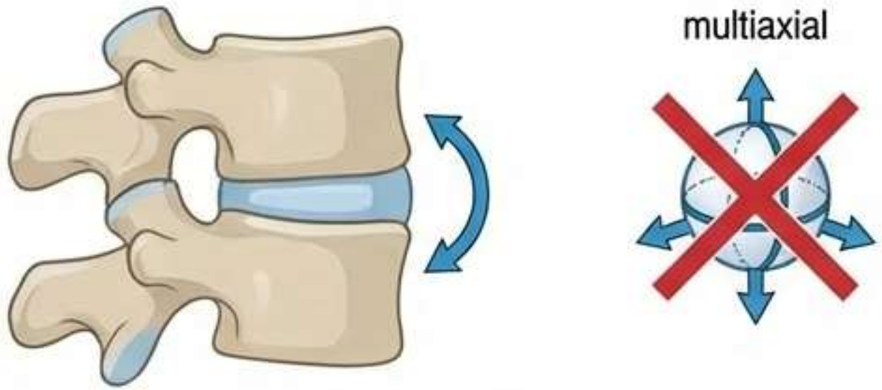
Mnemonic: Cartilage = Can't bleed (Avascular)

Question 19 | Source: EMD 1 2018 (Q07)

A semi-mobile joint:
A- Is named synarthrosis.
B- Has a single axis of movement.
C- Is a joint with multiple degrees of freedom.
D- Is named amphiarthrosis.
E- The wrist joint is the typical example.

Correct Answer: B, D

Professional Explanation:
Semi-mobile joints are **Amphiarthroses** (D). They typically allow slight movement in one primary plane or axis (B), like the compression/flexion of the spine. They do *not* have the multiple degrees of freedom seen in diarthroses.



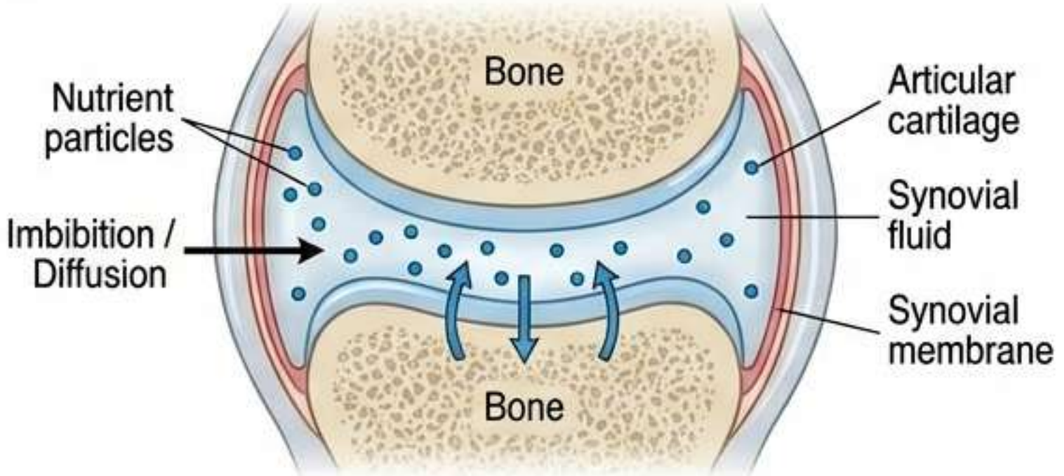
Semi = **Single** axis (mostly).

Question 20 | Source: EMD 1 2018 (Q18)

These propositions concern joints:
A- There are three types of joints.
B- All joint types have a synovial membrane.
C- The capsule and synovium are specific to the mobile joint.
D- The synovium lines the peripheral face of the capsule.
E- Le liquide synovial nourrit le cartilage.

Correct Answer: A, C, E

Professional Explanation:
Nutrition: Since cartilage is avascular, it relies on diffusion from **Synovial Fluid** for nutrients (E). The **Capsule and Synovium** are the hallmarks of the Synovial (Mobile) joint (C).



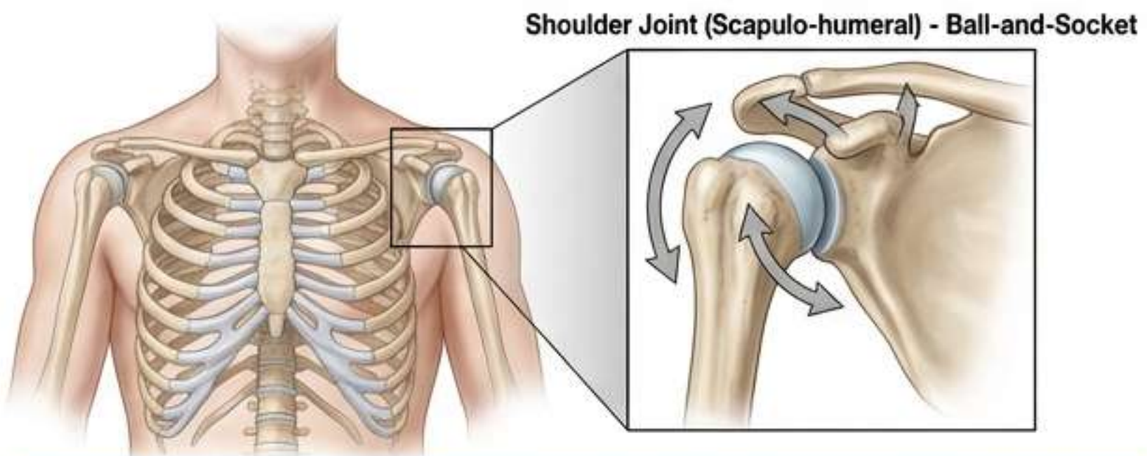
Synovial Fluid = **Soup** (Feeds the cartilage)

Question 21 | Source: EMD 1 2017 (Q06)

The diarthrosis type joint is:
A- Presents several axes of movement.
B- Is a fixed joint.
C- Is a semi-mobile joint.
D- Unites two or more bone surfaces.
E- The shoulder joint is the typical example.

Correct Answer: A, D, E

Professional Explanation: **Diarthroses** are freely mobile. The **Shoulder (Scapulo-humeral)** is the most mobile joint in the body, serving as the perfect example (E). Because it is a ball-and-socket diarthrosis, it moves on **several axes** (A).



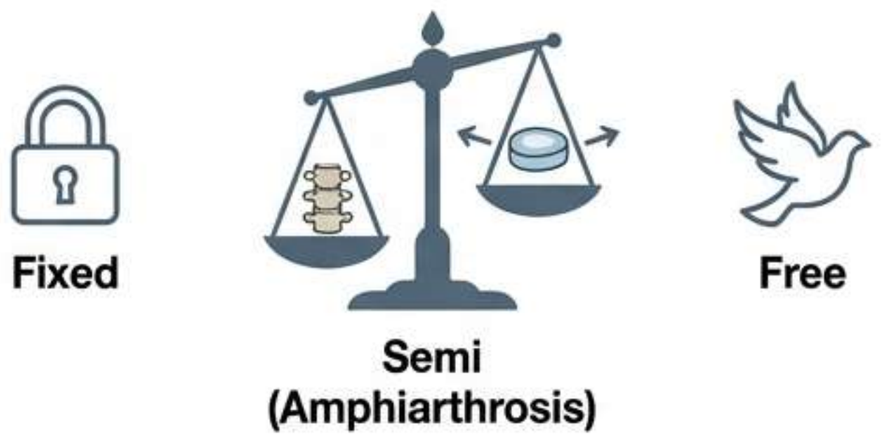
Mnemonic Box
Shoulder = **Super** mobile.

Question 22 | Source: Rattrapage 2017 (Q07)

A semi-mobile joint:
A- Is named synarthrosis.
B- Has a single axis of movement.
C- Articulation with multiple degrees of freedom.
D- Is named amphiarthrosis.
E- The wrist joint is the typical example.

Correct Answer: B, D

Professional Explanation: *Repeated Concept (Drill):* This mirrors Question 19. Repetition ensures retention: **Semi-mobile = Amphiarthrosis = Limited axes.**



Mnemonic Box
Amphi = **Almost** mobile.

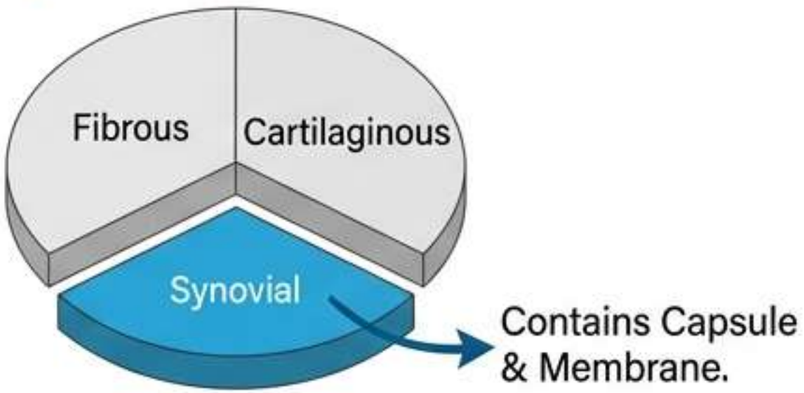
Question 23 | Source: Rattrapage 2017 (Q09)

These propositions concern joints:
A- There are three types of joints.
B- All types of joints have a Synovial membrane.
C- The capsule and membrane synoviale are specific to the mobile joint.
D- The synovium lines the peripheral face of the capsule.
E- Le liquide synovial nourrit le cartilage.

Correct Answer: A, C, E

Professional Explanation

Repeated Concept (Drill): Identical to Question 20. Validates the classification (Fibrous, Cartilaginous, Synovial) and the nutritional role of **Synovial Fluid**.



Mnemonic Box
Synovium = **Specific** to Mobile.

Question 24 | Source: EMD 1 2016 (Q07)

A joint is a union of two or more bony pieces, it can be:
A- Semi-mobile named diarthrosis.
B- Immobile named synarthrosis.
C- Mobile named synarthrosis.
D- Mobile named diarthrosis.
E- Immobile named amphiarthrosis.

Correct Answer: B, D

Professional Explanation

This question tests your terminology mapping:
Immobile -> **Synarthrosis** (B).
Mobile -> **Diarthrosis** (D).
Incorrect: Semi-mobile is Amphiarthrosis, not Diarthrosis.

Mobility Type	Terminology
Immobile	Synarthrosis
Semi-Mobile	Amphiarthrosis
Mobile	Diarthrosis

Mnemonic Box
Synarthrosis = **S**till. **D**iarthrosis = **D**ancing.

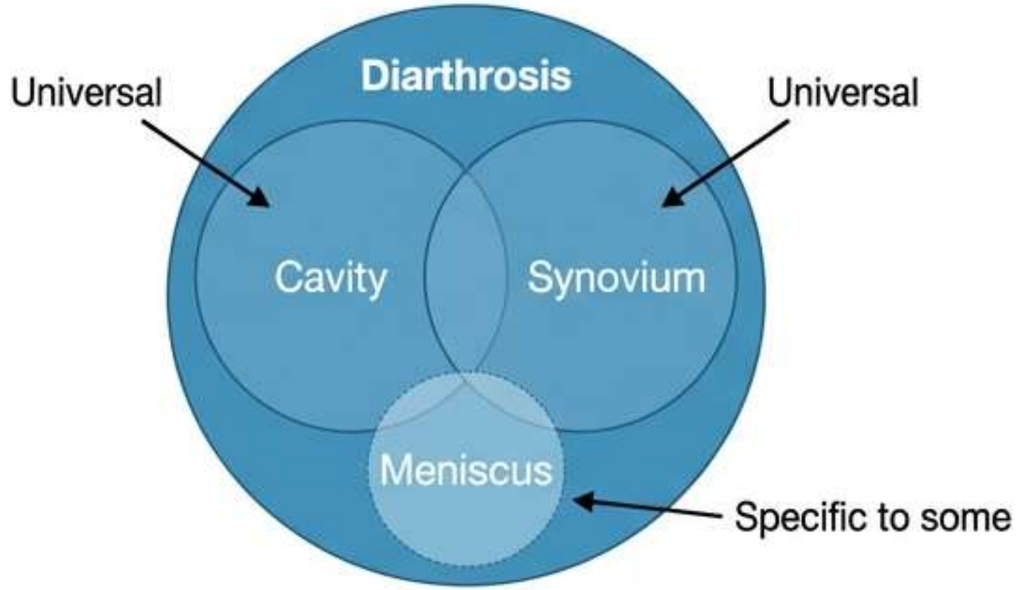
Question 25 | Source: EMD 1 2016 (Q08)

A diarthrosis type joint possesses the following characteristics:

A- It is a semi-mobile joint.
B- Presents a synovial membrane.
C- Mobile named synarthrosis.
D- Presents a joint cavity.
E- Presents an interarticular meniscus.

Correct Answer: B, D

Professional Explanation:
The universal features of a **Diarthrosis** are the **Synovial Membrane (B)** and **the Joint Cavity (D)**. Note: An interarticular meniscus (**E**) is an *adaptation structure* present in *some* (e.g., knee) but not *all* diarthroses.



Mnemonic Box:
Must Haves: Cavity & Membrane.

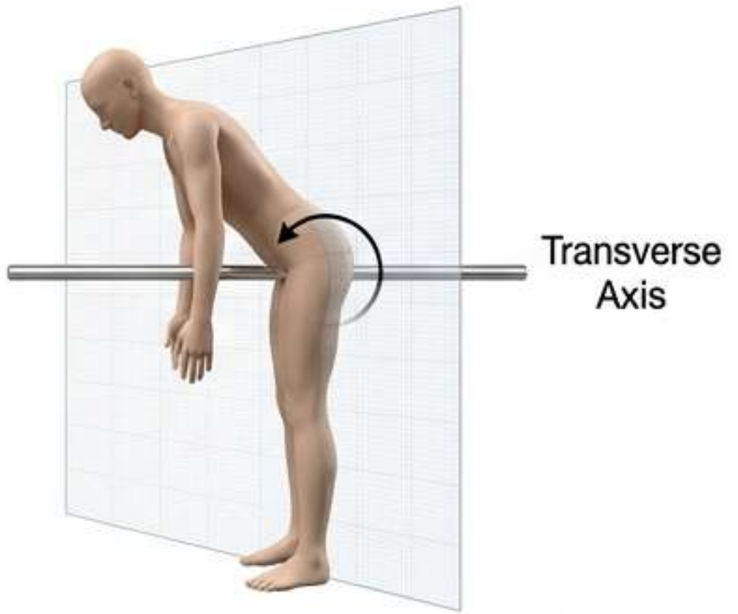
Question 26 | Source: EMD 1 2016 (Q16)

Flexion and extension movements occur:

A- In a frontal plane, around the sagittal axis.
B- In a transverse plane, around the longitudinal axis.
C- In a sagittal plane, around the frontal axis.
D- In a frontal plane, around the longitudinal axis.
E- In a sagittal plane, around the transverse axis.

Correct Answer: E

Professional Explanation:
Flexion/Extension is viewing the body from the side (Sagittal Plane). To move in this plane, the joint must rotate around an axis that runs through the body from side-to-side (**Transverse Axis**).



Mnemonic Box:
Sagittal = **Side** view. **Transverse** Axis = Tightrope walker's pole.

Question 27 | Source: EMD 1 2016 (Q20)

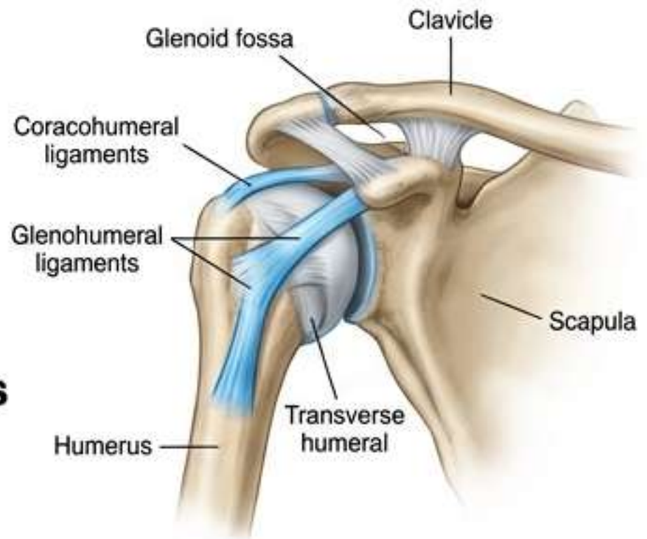
These propositions concern the scapulo-humeral joint:
A- It is a condyloid type diarthrosis.
B- Unites the thoracic limb to the trunk.
C- Its movements occur around several axes.
D- It is a very mobile and very solid joint.
E- The glenohumeral ligaments protect it anteriorly.

Correct Answer: B, C, D, E

Professional Explanation:

The **Scapulo-humeral (Shoulder)** connects the arm to the trunk (B). It is a **Spheroid** (Ball & Socket), not condyloid, allowing multi-axial

Spheroid (Ball & Socket), not condyloid, allowing multi-axial
movement (C). It sacrifices stability for mobility (D) but is reinforced anteriorly by **glenohumeral ligaments** (E) to prevent prevent dislocation.



Mnemonic Box:
Scapulo-Humeral = Sphere.

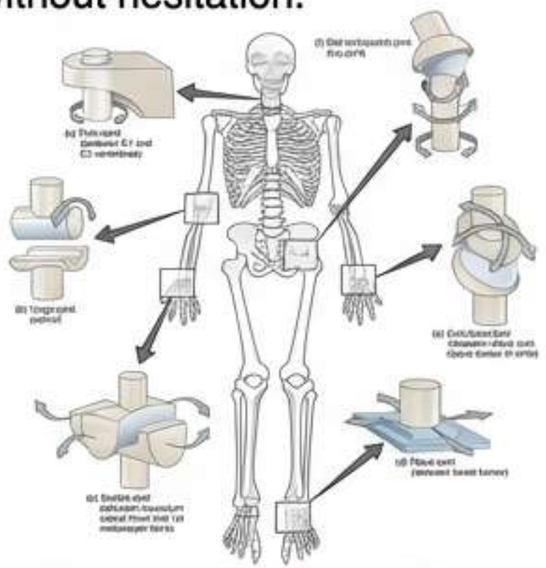
Review Complete

Module Complete.
You have mastered:
1. Joint Classification (Fibrous, Cartilaginous, Synovial).
2. Mobility (Synarthrosis, Amphiarthrosis, Diarthrosis).
3. Structures (Capsule, Synovium, Cartilage).
4. Biomechanics (Axes, Planes, Movements).

Correct Answer: N/A

Professional Explanation:

Review the classifications one last time. Ensure you can map the Structure (e.g., Fibrous) to the Mobility (e.g., Synarthrosis) Synarthrosis) without hesitation.



Mnemonic Box:
Practice makes Permanent.