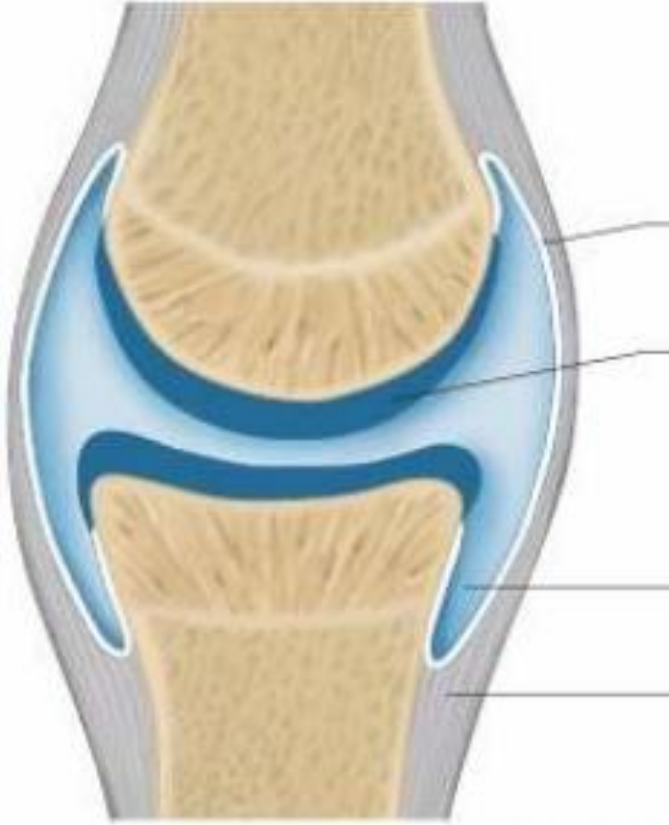


Classification of Synovial Joint



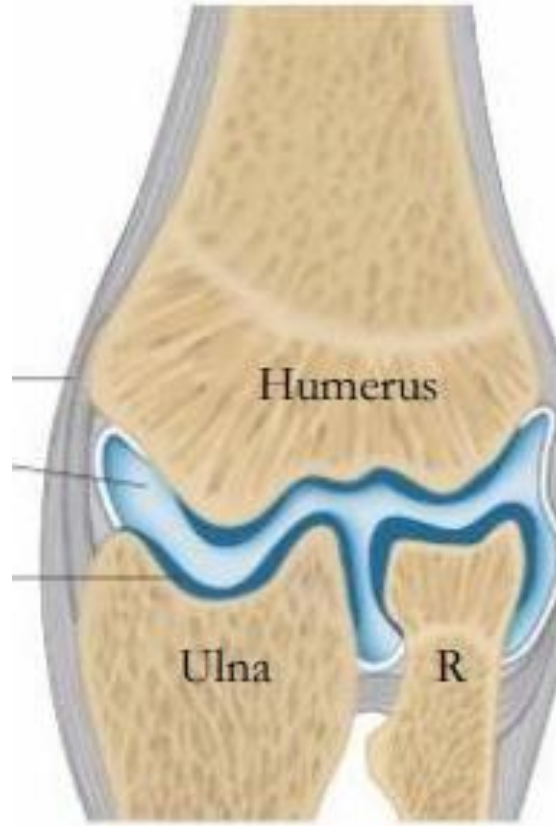
Classification of synovial joints

A. According to the number of articulating surfaces



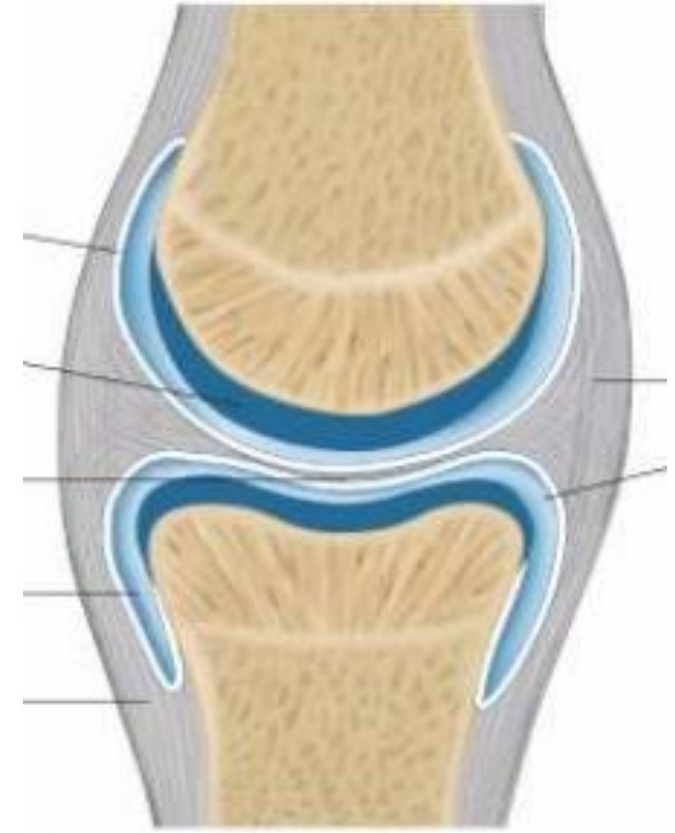
Simple

Only one pair of articulating surface.
Eg. joints of the fingers.



Compound

More than one pair of articulating surface.
Eg. Elbow joint



Complex

The joint cavity is divided by an articular disc or meniscus.
Eg. Knee joint

Classification of synovial joints

B. According to the number of axes

Uniaxial joint

Only one degree of freedom.

Eg. Hinge joint or pivot joint

Biaxial joint

2 degree of freedom, 2 axes of movement.

Eg. Ellipsoidal joint

Multiaxial joint

3 degree of freedom, axes in all planes.

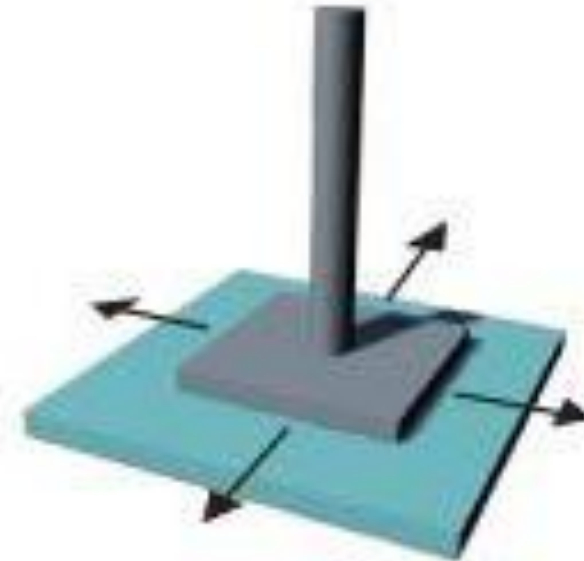
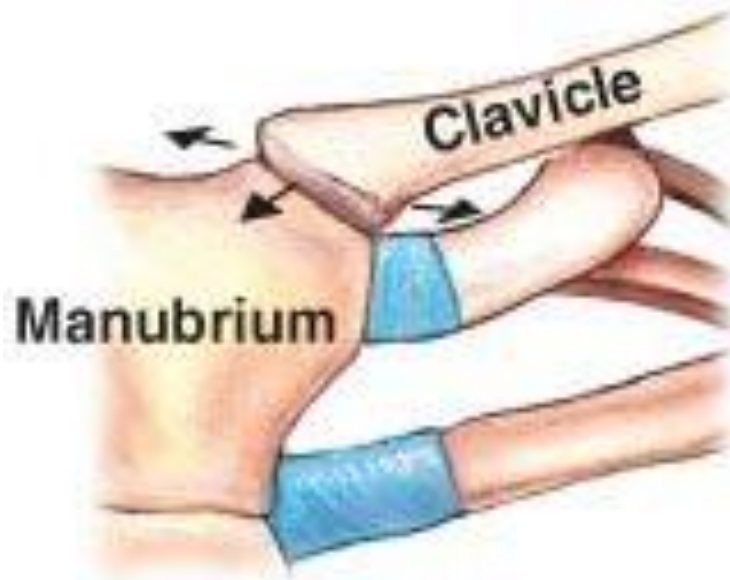
Eg. Ball & socket joint



Classification of synovial joints

C. According to the shape of the articulating surfaces

Plane joint



The opposing surfaces are almost flat.

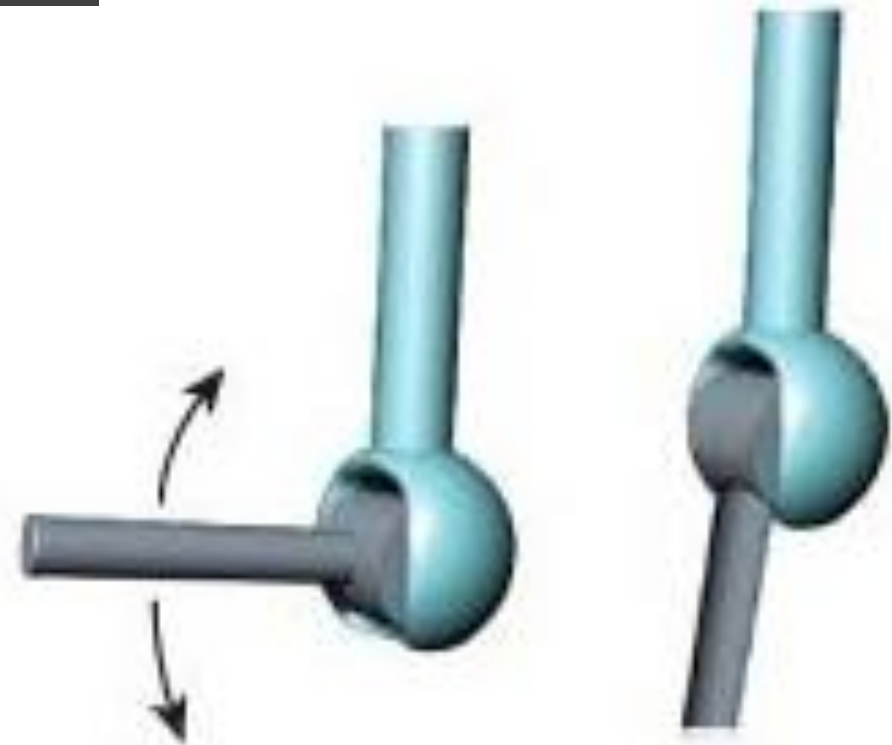
It allows movement in one plane only. Therefore, it is uni-axial with one degree of freedom

Eg. Intercarpal joint

Classification of synovial joints

C. According to the shape of the articulating surfaces

Hinge joint



Hinge joint (ginglymus joint)

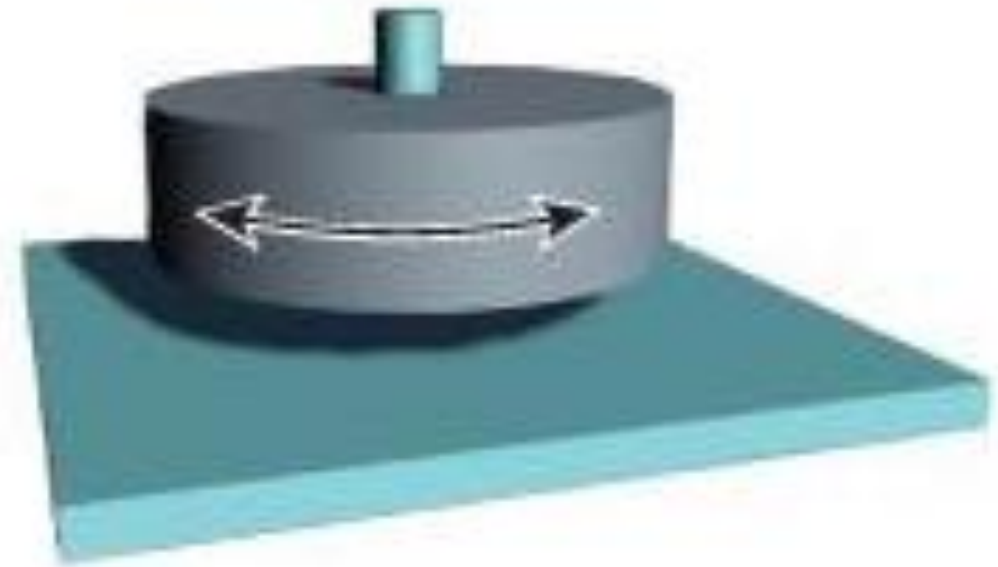
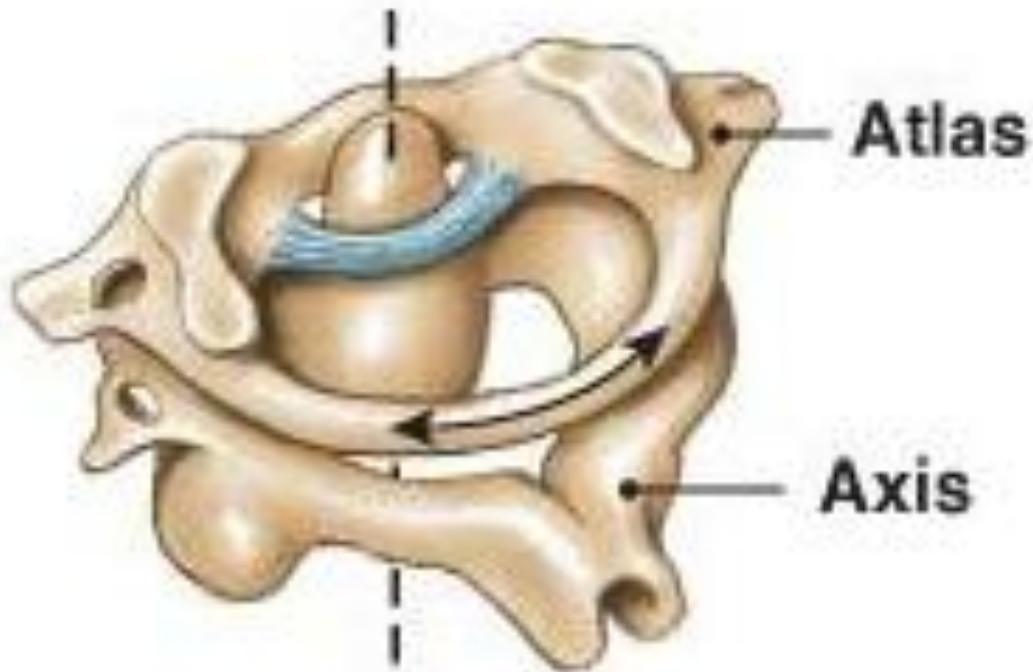
One opposing surface is slightly concave & the other is slightly convex.

Eg. Elbow joint

Classification of synovial joints

C. According to the shape of the articulating surfaces

Pivot joint



Pivot joint

One opposing surface is encircled by a fibrous ring at the joint end so that the bone within the ring rotates along the vertical axis. It is uni axial with one degree of freedom.

Eg. Superior RU joint, atlantoaxial joint

Classification of synovial joints

C. According to the shape of the articulating surfaces

Ellipsoidal joint



Ellipsoidal joint

It resembles the ball & socket but the articulating surfaces are much longer in one direction than the other.

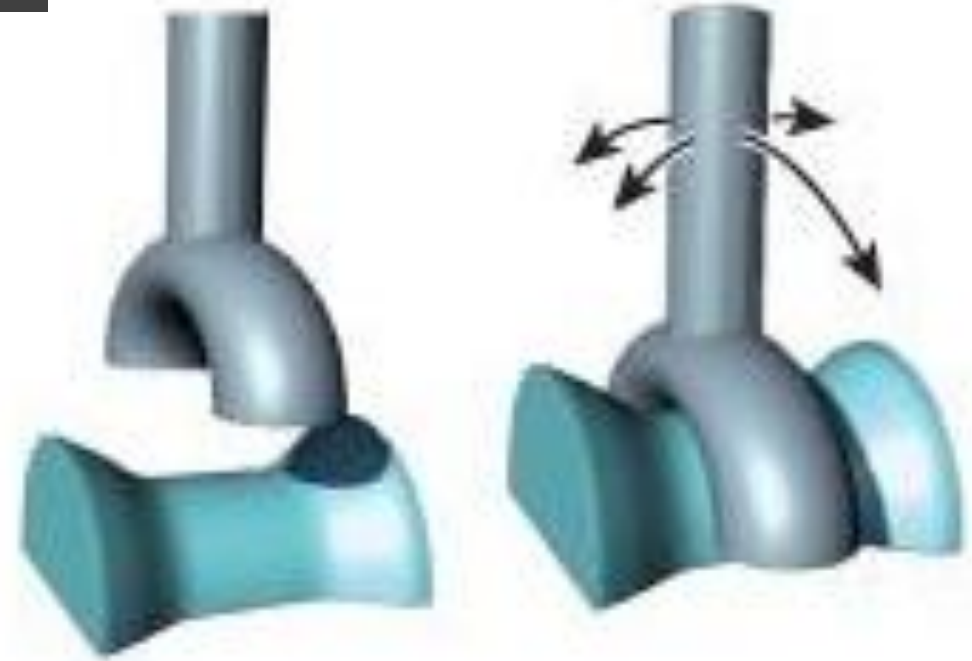
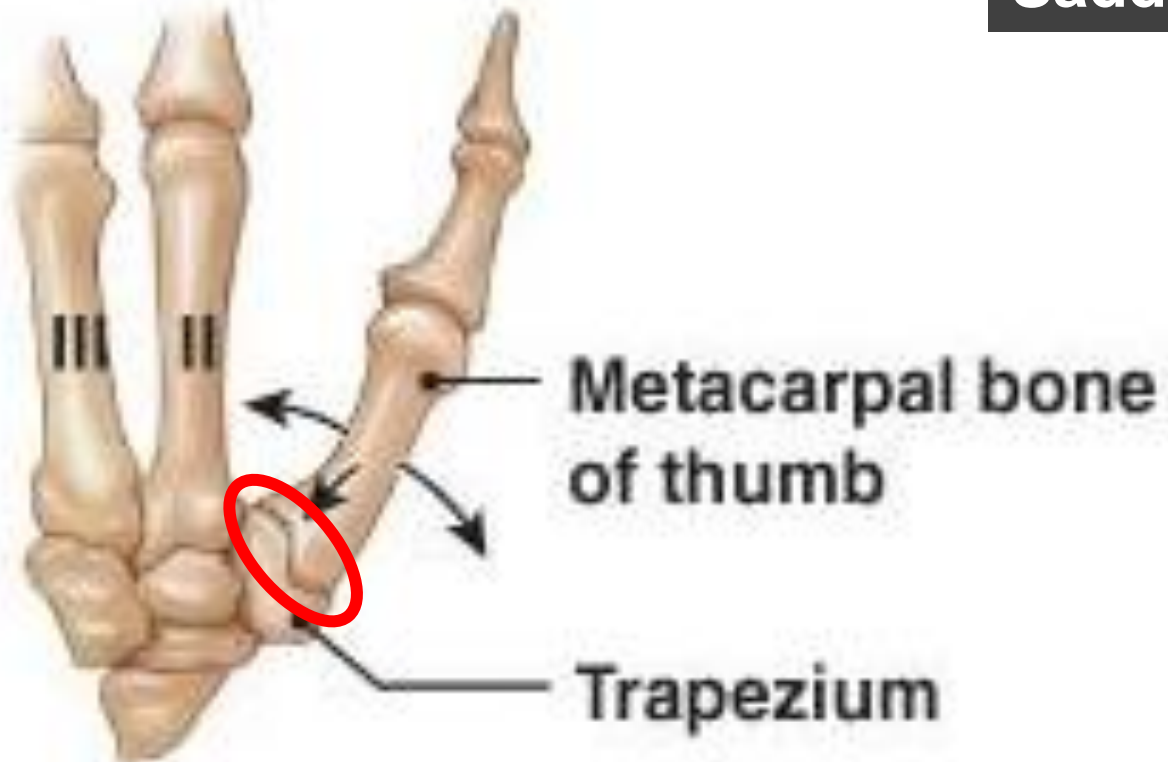
It is biaxial with 2 degree of freedom

Eg. Wrist joint

Classification of synovial joints

C. According to the shape of the articulating surfaces

Saddle joint



Saddle joint

The opposing surfaces are curved in the saddle shape

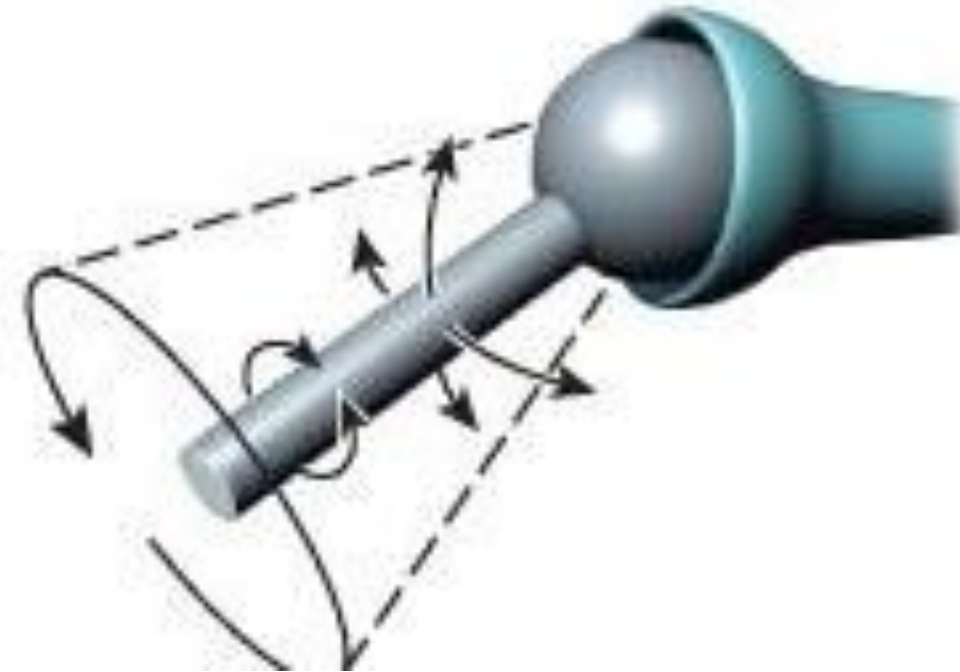
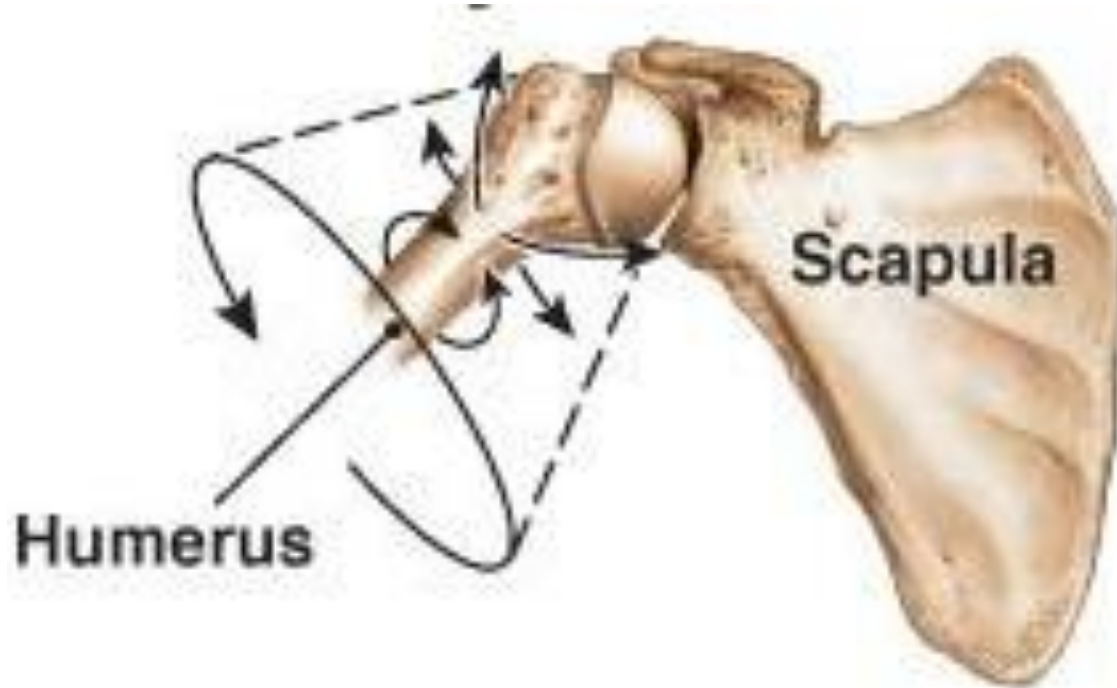
It is biaxial with 2 degree of freedom

Eg. Carpo-metacarpal joint of thumb

Classification of synovial joints

C. According to the shape of the articulating surfaces

Ball & socket joint



Ball & socket joint

One opposing surface is ball shaped & the other is socket.

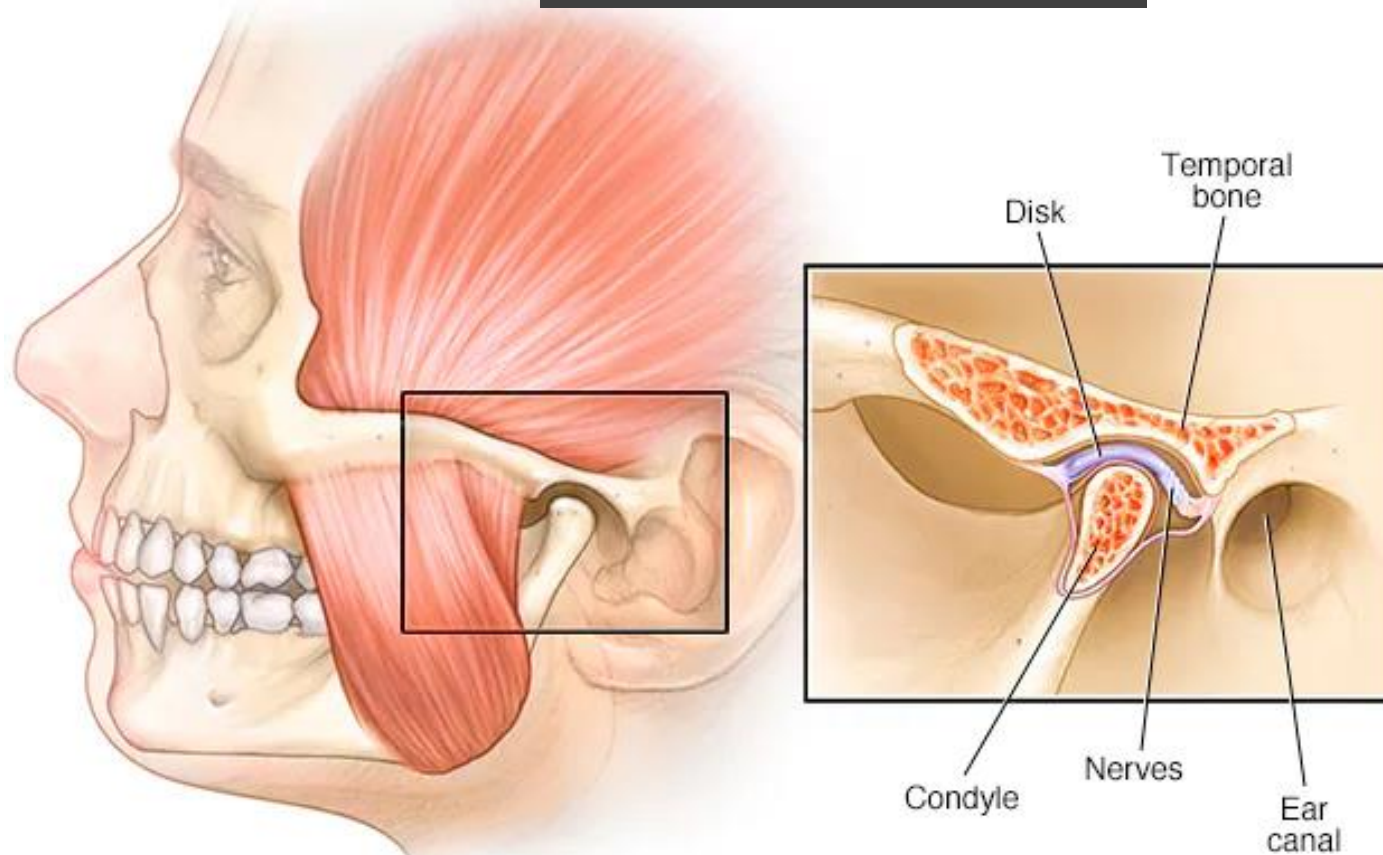
It is multi-axial with movement in all planes

Eg. Shoulder joint, hip joint

Classification of synovial joints

C. According to the shape of the articulating surfaces

Condylloid joint



Condylloid joint

It is a modified hinge joint. Eg. TM joint

Figure-references

Websites

<https://quizlet.com/303388098/types-of-synovial-joints-diagram/>

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Thank You

