

Joints

Fractures are broken bones

Sprains are ligament tares

Strains are stretched or torn muscles

Bursae and **Tendon Sheaths** (tube like bursae) protect ligament friction problems

Functional Classifications:

Synarthrosis - Imovable joints

Amphiarthrosis - Slightly movable

Diarthrosis - Freely movable

Structural Classifications:

Fibrous joints - held by fibers, no cavity

Sutures - imovable, sometimes even bony

Syndesmosis - band of fiber

Gomphosis (dentoalveolar) - roots of teeth

Cartilagenous joints - held together by cartilage, no cavity

Synchondrosis - plates that become bone in adulthood

Symphysis - bones covered with hyaline cartilage and connected by a band of fiber

Synovial joints - synovial cavity

Parts of cavity:

Articular capsule - surrounds joint and unites bones

Fibrous capsule - outer irregular sheath of fibers and ligaments

Synovial fluid

Accessory ligaments - outside the capsule

Articular discs / Menisci - cartilage pads

Planar Joints - flat joints permitting side to side movements and are nonaxial

Hinge Joints - monaxial movement at joint

Pivot Joints - Bone articulates in ring of ligament and bone

Condyloid Joints - Knuckle joints - biaxial movement

Saddle Joints - Saddle shaped joint - biaxial movement (more pronounced movement than condyloid)

Ball and socket joints - multiaxial (polyaxial) joint

Movements

described in relation to starting at anatomical position

Flexion - movement away from the body

Extension - movement towards the body

Hyperextension - movement behind the body

Lateral flexion / extension - sideways movement in relation to the midline

Adduction - circular movement adding distance from the midline

Abduction - circular movement reducing distance from the midline

Circumduction - distal end of body part moved in a circle

Rotation - movement around a pivotal point

Lateral / Medial Rotation - when distal ends moves in horizontal planes as a result of a pivot

Elevation - Upward movement

Depression - Downward movement

Protraction - slide forwards

Retraction - slide backwards

Inversion - soul turned in (ie. big toe turned out)

Eversion - soul turned out (ie. pinky toe up)

Dorsiflexion - flexion in the dorsal/upper side direction

Plantarflexion - flexion towards the plantar/under side direction

Pronation - pivot to rotate anterior side down

Supination - pivot to rotate anterior side up

Opposition - movement across - thumb at CMC joint