

articulations

articulations point of contact between bones

structure determines the type of movement

needed for:

strength lock elements together

movement permits range of movement

factors that contribute to range of motion (ROM)

structure or shape

strength and tension

hormones (relaxin)

disuse

shoulder joint (glenohumoral)

ball and socket

powerful muscles from the rotator cuff

greatest ROM in body

elbow joint

radius and humerus radio humeral joint

ulna and humerus ulnohumeral joint

responsible for flexion and extension

stable because of interlock, joint capsule, ligaments

hinge

hip joint (acetabulofemoral joint)

femur and acetabulum

consist of cartilage, fat pad, synovial membrane

ball-and-socket

classifying joints

structural

a. fibrous joints

b. cartilaginous joints

c. synovial joints

functional

a. immoveable

classifying joints (cont)

b. slightly moveable

c. freely moveable

joint movements

gliding opposition surfaces slide back and forth and side to side

flexion decrease in angle

extension increase in angle

hyperextension extension past anatomical position

abduction away from midline

adduction toward midline

circumduction movement of part in a circle

rotation bone revolves around its own longitudinal axis

inversion move foot medially

eversion move foot laterally

pronation palm down

supination palm up

opposition thumb across palm to touch finger tips

dorsiflexion foot upward

plantar flexion foot downward

elevation upward movement

depression downward movement

protraction anterior movement

retraction protraction return to normal

immoveable joints

suture fibrous

symphysis cartilaginous

slightly moveable joints

syndesmosis fibrous

symphysis cartilaginous

freely moveable joints

articular cartilage between bones; surrounded by joint capsule; inner surface lined with synovial membrane that secrete synovial fluid

arterial branches merge around a joint

nerve endings respond to movement

knee joint (tibiofemoral joint)

responsible for flexion, extension, and rotation

femur/tibia and patella/femur

supporting structures menisci, fat pads, bursae, ligaments

aging

osteoarthritis thinning cartilage and lowering synovial fluid from wear and tear

rheumatoid arthritis inflammation, autoimmune

