

### Anatomical Planes

Planes	Movement Exercise
Sagittal	up/down, forward/backward ME
Lateral	side to side ME
Transverse	Rotation ME, push up, bench press, flys

### Directional Terms

Term	Meaning	Example usage
Medial	toward the median	heart is medial to lung
lateral	away from the median	eyes are lateral to the nose
Anterior	In front of or front	sternum anterior to the heart
Posterior	In behind of or behind	lung is posterior to the heart
Prone	lying facing down	chest on the floor
supine	lying facing up	back on the floor
superior	above	head is superior to body
inferior	below	hips inferior to the shoulder

### Planes & Movement Terms

Term	Meaning	Example Exercise/Movement
Flexion	decreasing joint angle	biceps curl
Extension	straighten a joint	elbow straighten

### Planes & Movement Terms (cont)

Abduction	away from the body	lateral raise
Adduction	towards the body	lateral raise
Elevation	raises vertically in frontal plane	shoulder shrug
Depression	lowering in same plane	shoulder shrug
Protraction	anterior move. in the transverse plane	chest contraction
Retraction	posterior move. in transverse plane	chest retraction
Circumduction	one part is stationary other makes circular motion	arm circling
Rotation	bones spins in longitudinal axis	hip rotation/forehand-backhand stroke
Supination	forearm movement-palm is up	arm supine
Pronation	palm facing down	arm prone

### Synovial Joints

-The most familiar type of joint.  
 -Most structurally complex type of joint.  
 Most likely to develop uncomfortable and crippling dysfunctions.

### Classifications of Synovial

Classification	Meaning	Example
Ball and Socket	multi axial joint	shoulder, hip
Condylar (ellipsoid)	biaxial joint	wrist and bases of fingers
Saddle Joint	saddle shaped-concave in 1 direction-biaxial	thumb and sternoclavicular joint (clavicle)
Plane (Gliding)	bone surfaces are flat-adjacent bones slide each other-biaxial	carpal, tarsal, vertebrae
Hinge	monoaxial-like door hinge	elbow, knee, fingers, toes
Pivot	monoaxial which joint spins on longitudinal axis	atlantoaxial of first 2 vertebrae, radioulnar at the elbow