

Normal Range of Motion (ROM) · AAOS Reference Chart

Degrees from anatomical neutral (0°) to end range · AAOS normative values

goniometer.io/range-of-motion

Goniometer

the iPhone ROM app

CERVICAL SPINE (NECK)

Flexion	45°
Extension	45°
Lateral flexion (each side)	45°
Rotation (each side)	60°

SHOULDER

Flexion	180°
Extension	60°
Abduction	180°
Adduction	40°
External (lateral) rotation	90°
Internal (medial) rotation	70°

ELBOW & FOREARM

Elbow flexion	150°
Elbow extension	0°
Forearm pronation	80°
Forearm supination	80°

WRIST

Flexion	80°
Extension	70°
Radial deviation	20°
Ulnar deviation	30°

HAND & FINGERS (FLEXION)

Finger MCP (index-little)	90°
Finger PIP (index-little)	100°
Finger DIP (index-little)	90°
Thumb MCP	50°
Thumb IP	80°

HIP

Flexion	120°
Extension	30°
Abduction	45°
Adduction	30°
External rotation	45°
Internal rotation	45°

KNEE

Flexion	135°
Extension	0°

ANKLE

Dorsiflexion	20°
Plantarflexion	50°
Inversion	35°
Eversion	15°

NOTES

- Norms are a guide, not a cutoff: actual ROM varies with age, sex, and body type.
- Finger and thumb extension returns each joint to 0° neutral.
- Total Active Motion (TAM) = MCP + PIP + DIP flexion minus extension lag; normal is about 280° per finger.
- Record a deficit as negative: knee extension -10° means 10° short of a straight leg.