

## Range of Motion Normal Values

Each joint has a normal [ROM](#) range of values, while each person has a different amount of ability to achieve it. Below are generally accepted values for a normal ROM for some individual joints as measured in degrees:

*Table 1.* Typical Joint Ranges <sup>11</sup>

Joint / Segment	Movement	Degrees
Wrist	Flexion	60
	Extension	60
	Radial Deviation	20
	Ulnar Deviation	20
Forearm	Pronation	80
	Supination	80
Elbow	Flexion	140
	Extension	0
Shoulder	Flexion	180
	Hyperextension	50

	Abduction	180
	Adduction	50
Shoulder with Abducted Arm	Internal Rotation	90
	External Rotation	90
	Horizontal Adduction	-
	Horizontal Adduction	-
Cervical Spine	Flexion	60
	Hyperextension	75
	Lateral Flexion	45
	Rotation	80
Thoraco-Lumbar Spine	Flexion	45-50
	Hyperextension	25
	Lateral Flexion	25
	Rotation	30
Hip	Flexion	100
	Hyperextension	30
	Abduction	40

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	Adduction	20
	Internal Rotation	40
	External Rotation	50
Knee	Flexion	150
	Extension	0
Ankle	Plantarflexion	40
	Dorsiflexion	30

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## Causes of Limited Range of Motion

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Limited ROM refers to a joint that has a reduction in its ability to move. Motion may be limited because of a problem within the joint, swelling of tissue around the joint, stiffness of the muscles, or pain.<sup>[7]</sup>

Medical conditions associated with a limited range of motion in the joints include:

- [Ankylosing Spondylitis](#)
- [Osteoarthritis](#) (OA)
- [Rheumatoid Arthritis](#) (RA)
- [Juvenile RA](#), which is an autoimmune form of arthritis that occurs in children under the age of 16 years
- [Cerebral Palsy](#) (CP)
- [Legg-Calve-Perthes](#) disease.
- [Sepsis](#) of the hip and other joints, which is a bacterial infection of the joints
- [Congenital Torticollis](#)
- [Syphilis](#), which is a sexually transmitted infection (STI)

Other causes of restricted range of motion include:

- [Inflammation](#) of the soft tissues surrounding the joint, or joint swelling
- Muscle Stiffness
- [Pain](#)
- Joint Dislocation
- [Fractures](#) <sup>[8]</sup>

Other than pathological causes for restriction of movement, there could be non-pathological causes such as

- Tight Clothing

- Hypertrophy of muscles due to strength training (e.g [biceps brachii](#) hypertrophy limits the range of elbow flexion)
- Fat