

Table 11.1 Tape Measure Examination of Cervical ROM

Motion	Location of tape measure	Movement	Measurement	Normal range
Forward flexion	Tip of chin to tip of sternal notch	Neck flexion (moving chin toward chest); instruct athlete to slightly tuck the chin before initiating the movement (watch for anterior jutting of the jaw).	Distance (mm) between chin and sternal notch at end range	Chin touching chest (watch for mouth opening to help chin reach chest)
Extension	Same as forward flexion	Extension of neck (looking toward the ceiling)	Same as forward flexion	Eyes pointing straight to the ceiling
Lateral flexion	Mastoid process to tip of acromion process	Direct movement of ear toward shoulder; watch for cervical rotation and shoulder rising to achieve motion.	Distance (mm) between mastoid and acromion at end range	Head tilting bilaterally at approximately 45°
Lateral rotation	Tip of chin to tip of acromion process	Head rotation to left and right as far as possible, without contributing motions into extension, flexion, or lateral flexion	Distance (mm) between chin and acromion at end range	Approximately 90° of rotation bilaterally; chin nearly in line with acromion

From S. Shultz, P. Houglum, and D. Perrin, 2016. *Examination of musculoskeletal injuries*, 4th ed. (Champaign, IL: Human Kinetics).