



## Cervical Spine Strengthening/Rotation

Try these exercises to maintain your range of motion and strengthen your neck muscles. Strengthening the deep neck muscles, which are close to your spine, help support good posture and reduce strain on superficial muscles, which are often overworked. Activating and strengthening these muscles can alleviate chronic neck pain and stiffness. Strengthening your neck can also help with injury prevention as these muscles act as stabilizers during movements and protect the cervical spine from excessive stress.

### Chin Tuck

Stand with your back straight and look straight ahead. Gently nod your head to give yourself a double chin, feeling a stretch along the back of your neck. This can also be performed against the headrest in the car, in bed without a pillow, or on the floor. Hold for 3-5 seconds. Perform 5-10 repetitions.



### Deep Flexors (front of neck)

Gently tuck your chin, then lift your head roughly 2 finger widths from the floor keeping shoulders relaxed. Hold this position, keeping your chin tucked, and then lower back down slowly. Begin holding for 5-10 seconds, repeating 3-5 times, and work up to holding for 30 seconds.





## Cervical Spine Strengthening/Rotation

### Deep Stabilizers (side of neck)

Get into a side plank position (either kneeling or full plank). Bring head so it is in line with your trunk and then rotate, so you are looking up towards the ceiling. Hold for length of the side plank. Begin with 15 seconds working up to 60 seconds. Repeat 3 times.



Least Difficult



Most Difficult

### Deep Stabilizers (back of neck)

**(A)** Lie on your stomach, perform a chin tuck and then raise your head about 2 finger widths off the ground, keeping the neck in neutral, then slowly lower back down. Begin holding for 5-10 seconds, repeating 3-5 times, and work up to holding for 30 seconds. When ready for a more challenging exercise, progress to (B)



**(B)** Lie on your stomach with your head over the edge of a bed. Tuck your chin and raise your head upward until it is at the same level as your shoulders. Slowly relax back to starting position, and repeat. Begin holding for 5-10 seconds, repeating 3-5 times, and work up to holding for 30 seconds.



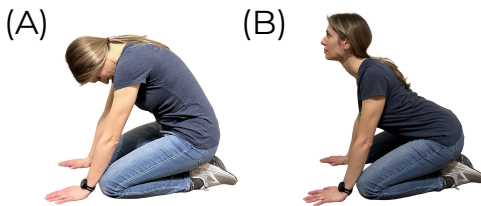


## Thoracic Spine & Rib Mobility

The thoracic spine is made up of 12 vertebrae in between your neck and low back. The ribs as well as many muscles attach to these vertebrae. Proper mobility of the thoracic spine is crucial for proper function of the neck, low back, and shoulders. Having good thoracic spine and rib mobility can help improve lung volume, increase range of motion for the neck and shoulders, reduce shoulder pain, and decrease low back pain.

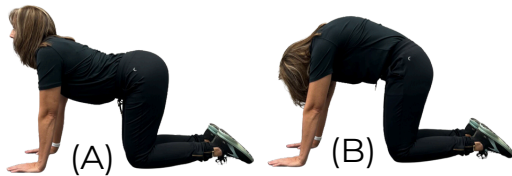
### Open Book

Begin lying on your side with your legs bent and your arms together straight in front of you on the ground (#1). Lift your top arm straight up and over to the floor on your other side. Keep your knees together and don't let your hips move (#2). If keeping the arm straight feels like too much stretch, place your hand on your ribs (#3). Repeat 5-10 times with each arm.



### Cat/Cow

**Mid/Upper Back Focus:** Start in tabletop (on hands and knees) and hinge back at your hips until your buttocks and heels are touching or close to it. While keeping the rest of your body still, round your mid back (Position A) followed by slowly arching your mid back (Position B). Hold each position 3-5 seconds, moving smoothly between them for up to 10 repetitions.



**Lower Back Focus:** Start in tabletop position (on hands and knees). Lift head and look at the spot where the wall meets the ceiling while you let your belly drop towards the floor (Position A). Then look between your knees as you round your back up towards the ceiling (Position B). Hold each position 3-5 seconds, moving smoothly between them for up to 10 repetitions.

### Rotation

Start in tabletop (on hands and knees) and hinge back at your hips until your buttocks and heels are touching or close to it. Take one hand and place it on the back of your head. Gently rotate your trunk and try to bring your elbow towards the ceiling. Slowly return to the starting position and repeat. Try 10 repetitions each side.





## Thoracic Spine & Rib Mobility

### Thoracic Mobilization

Place a foam roller perpendicular to your upper back and place hands behind your head with elbows pointing towards the ceiling. Engage your abdominals. Try to move your elbows overhead as far as you can and then return to the starting position. Be sure to keep your abdominal engaged so you don't arch your lower back. You can move the foam roller and do this at multiple points along your upper back. This can also be performed using tennis balls instead of a foam roller.



### Rib Mobilization

Place a strap/belt/towel/sheet over your shoulder, just outside of your ear. Tilt your head towards the strap, then gently pull the strap down towards your opposite hip to take up the slack, and slowly move your head away from the strap holding for a few seconds. Keep gentle tension on the strap as you slowly tilt your head towards and away for 15-30 seconds.

