

Adam Seidl, MD
Associate Professor
Shoulder/Elbow Surgery
Department of Orthopedics
University of Colorado



Orthopedics
UNIVERSITY OF COLORADO

Highlands Ranch Hospital
(720) 516-4087
Inverness
(303) 694-3333
Anschutz Medical Campus
(720) 848-1900

Rehabilitation Protocol **Cervical Radiculopathy Physical Therapy Protocol**

Phase 1: Acute Phase (Week 1-2)

Goals: Reduce pain and inflammation, avoid aggravation of symptoms, and improve posture.

1. Pain Management:

- **Rest:** Avoid activities that exacerbate symptoms (e.g., heavy lifting, prolonged sitting).
- **Heat/Ice:** Ice for 10-15 minutes every 2-3 hours for inflammation; heat therapy for muscle tightness.

2. Posture Correction:

- **Postural Awareness:** Encourage neutral spine alignment during daily activities.
- **Chin Tucks:**
 - **How to perform:** Sit or stand upright, gently tuck the chin towards the neck without flexing the head forward.
 - **Reps:** 10-15 repetitions, 3-4 times/day.

3. Isometric Neck Exercises:

- **Neck Flexion/Extension/Side Bends:**
 - **How to perform:** Gently press your hand against the forehead, back of the head, or side of the head, resisting motion for 5-10 seconds.
 - **Reps:** 5 repetitions in each direction.

4. Cervical Retractions with Scapular Squeezes:

- **How to perform:** Perform a chin tuck, followed by pulling the shoulder blades together gently. Hold for 3-5 seconds.
- **Reps:** 10-15 repetitions, 2-3 times/day.

5. Gentle Range of Motion (ROM) Exercises:

- **Neck Rotation, Flexion, and Lateral Bending:**
 - **How to perform:** Slowly rotate, bend, or flex the neck within a pain-free range of motion.
 - **Reps:** 10-15 repetitions, 2-3 times/day.

Phase 2: Subacute Phase (Week 3-6)

Goals: Increase mobility and begin strengthening; maintain postural corrections.

1. Continue with Posture and Pain Management:

- **Chin Tucks and Scapular Squeezes:** Continue exercises from Phase 1, but increase hold time to 10 seconds.
- **Modalities:** Ice/heat as needed for pain management.

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2. **Range of Motion (ROM) Exercises:**
 - **Progress ROM:** Increase range of motion by incorporating side-to-side rotation and extension while seated with support.
 - **Reps:** 2 sets of 10 repetitions, 3 times/day.
3. **Stretching:**
 - **Upper Trapezius and Levator Scapulae Stretch:**
 - **How to perform:** Sit upright, tilt your head to one side, and gently pull with the opposite hand for a deeper stretch.
 - **Reps:** 20-30 seconds hold, 3-5 repetitions each side.
4. **Strengthening Exercises:**
 - **Resisted Isometrics:**
 - **How to perform:** Use a resistance band or manual resistance to gently resist neck flexion, extension, lateral bending, and rotation.
 - **Reps:** 10 repetitions, 2 sets/day.
5. **Scapular Strengthening:**
 - **Rows with Resistance Band:**
 - **How to perform:** While seated or standing, pull a resistance band towards your chest, squeezing the shoulder blades together.
 - **Reps:** 2 sets of 10-15 repetitions.

Phase 3: Strengthening and Conditioning (Week 6-12)

Goals: Restore full strength, stability, and prevent recurrence.

1. **Strengthening Progression:**
 - **Continue Chin Tucks with Resistance:** Use a resistance band for cervical flexion/extension.
 - **Reps:** 2 sets of 15-20 repetitions.
2. **Core Strengthening:**
 - **Planks:** Begin with forearm planks for 10-20 seconds, gradually increasing the hold time.
 - **Reps:** 3 sets.
3. **Postural Strengthening:**
 - **Scapular Stability Exercises:**
 - **Wall Angels:** Stand with your back against a wall and slowly raise your arms overhead, keeping them in contact with the wall.
 - **Reps:** 2 sets of 10 repetitions.
4. **Functional Exercises:**
 - **Arm and Neck Coordination Drills:** Incorporate light resistance and coordination exercises for daily tasks, like reaching or lifting.

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Phase 4: Return to Activity (Week 12 and beyond)

Goals: Return to normal activity, work, or sports with proper body mechanics.

1. Functional Training:

- Tailor the program to specific work or recreational activities (e.g., for desk workers, ensure proper ergonomic setup and posture awareness).

2. Sport-Specific Training:

- For athletes, introduce specific neck and upper body exercises to build strength for sports like swimming, tennis, or weightlifting.

3. Maintenance Exercises:

- Continue core stability and neck strengthening exercises 2-3 times a week to prevent recurrence.