

# **Cervical Fusion**

**Precautions:** Anterior cervical fusion: avoid extension; Posterior cervical fusion: avoid flexion. For 4 weeks, no lifting >5#, then progress slowly. Do not lift above shoulder level. **No overhead lifting or activity.** Cervical collar use- usually soft collar: 1 Level for 2 weeks, 2 Levels for 2-4 weeks, and 3 Levels or greater for 6 weeks with hard collar, per physician recommendation.

### Phase I (0 - 4 weeks post-op)

- Wound care: Observe for signs of infection
- Modalities: prn for pain and inflammation (ice, IFC)
- Exercises: Bed mobility, transfers, don/doffing collar, diaphragmatic breathing
  - o Scapular retraction, Shrugs, Glut squeezes, SLR
  - Gait with appropriate assistive device (if necessary), increasing tolerance to 30 minutes or ½ mile daily
  - Reinforce sitting, standing, and ADL modification with neutral spine and proper body mechanics (posture education)
  - Stationary bike 15-30 minutes for cardiovascular activity

### Phase II (4 – 8 weeks post-op)

- Wound care: Begin scar management techniques when incision is closed
- Modalities: prn for pain and inflammation (ice, IFC)
- Exercises:
  - UBE no resistance; Treadmill conditioning
  - AROM of UE- limit overhead activity
  - Wall push up (keep arms below shoulder height)
  - At 6-8 weeks post-op, Gentle 2 finger cervical isometrics (<50%) while maintaining chin tuck
  - Thoracic mobilization exercises
    - Cat/camel, Upper thoracic extension, Upper thoracic rotation with use of hand collar)
  - o Basic core stabilization with neutral spine- NO BRIDGING
  - General upper and lower body strengthening
  - Nerve glides prn (no reproduction of symptoms)
  - Lifting mechanics and education- LIMIT 10 lbs.

### Phase III (8 weeks – 12 weeks post-op)

- Wound care: Continue as in phase II
- Modalities: prn for pain and inflammation (ice, IFC)
- ROM:
  - o Gentle, pain-free cervical AROM

Initiation Date: 10-01-14 Revised Date: 3-26-19

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#### Exercises:

- UBE with resistance, treadmill walking, stationary bike
- o Rhythmic stabilization of upper quarter
- UE therabands
- Shoulder shrugs and rolls with 2-5#
- Sidelying head holds and Prone dorsal glide 5 15 seconds
- Neuromuscular re-education of longus colli with pressure biofeedback with supine chin tuck
  - Raise from 20mmHg to 28-30 mmHg with 10 second hold, x10-20 reps
- o Modified plank from knees or standing lean vs. table
- o Gentle MFR, soft tissue mobilization, and OA work
- Increase lifting as tolerated, up to 25#

# Phase IV (12+ weeks post-op)

- Initiate stretching
- Resume jogging/running/plyometrics
- Return to work, review ergonomics, consider work conditioning program and/or FCE as needed
- Return to recreational activities as tolerated

# Adapted From:

- 1) Center for Spinal Disorders Rehabilitation Department. Cervical Fusion Protocol. IMS Orthopedics, Issada Thongtrangan, MD.
- 2) Jesse Even, MD. Anterior Cervical Disectomy and Fusion Protocol. Www.tmisportsmed.com
- 3) Consulted with Brian Braaksma, MD. Rockford Orthopedic Spine Care.

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