

Patient Name: _____
Diagnosis: _____
Notes: _____

Cervical Fusion Physical Therapy Prescription

The intent of this protocol is to provide guidelines for rehab. It's not intended as a substitute for clinical decision making.

If any of the following occur, contact Dr. Poulter and hold off on physical therapy:

- Any signs of infection
- Worsening of radicular symptoms, including progressive weakness
- Unexpectedly high self-reports of pain in comparison to pre-surgical state

Progress patients with multi-level fusions slower and more cautiously.

Phase I (0 to 6 Weeks): Protective Phase

Therapy

- One to two visits (if appropriate)

Precautions

- Avoid bending, twisting, lifting, pushing and pulling **25 pounds or more for six weeks.**
- Limit sitting, including in the car, to no more than 30 minutes at a time (standing/walk breaks).
- No passive stretching. Gentle flexion, extension, retraction active range of motion in pain-free range only.
- No specific cervical rotation or side bend active range of motion in home exercise program for 12 weeks (normal movements with activities of daily livings are okay).
- **Bracing:**
 - **1 Level Fusion:** No brace
 - **2 Level Fusions:** Four weeks
 - **3+ Level Fusions:** Six weeks

Goals

- Diminish pain/inflammation and minimize upper extremity radiating symptoms (ice, modalities as needed).
- Learn correct posture, body mechanics, transfers.
- Focus on walking program, increasing tolerance to 30 minutes, two times a day.

Education

- **Postural Education:** Sitting posture with lumbar roll at all times; frequent change in positions; avoid prolonged flexion (books, phones, tablets, etc.); sleeping positions
- **Body Mechanics:** Light lifting, transfers (include log rolling), positioning, etc.
- **Driving:** When off narcotic pain medicine and out of collar

Exercises

- **Cardio:** Zero to two weeks - walking or stationary bike two times a day, 10 minutes each to start
- **Deep Cervical Flexors:** Emphasis on neuromuscular control, 10" isometrics to start
- **Scapular Retractions:** Emphasis on neuromuscular control (eliminate shrug)
- **Isometrics:** Zero to four weeks - gentle cervical extensions, flex, rotation, side bend
- **Cervical Active Range of Motion:** Gentle, pain-free range only
- **Light Stretching:** Only pecs (eg.: supine over towel) and seated thoracic extensions

Aquatic Physical Therapy *(less than four weeks if available once incision has healed)*

- Transverse abdominis bracing during all exercises and good head position.
- Walking all directions, balance, lower extremity strengthening (no upper extremity resistance strength until six weeks).

Phase II (6 to 12 Weeks): Strengthening Phase

Therapy

- Starting at week six, two to three times per week, four or more times a weeks

Precautions

- Keep spine in neutral and good posture for strengthening with a focus on proper neuromuscular control.
- Radiographically healed at three months, progress as tolerated.

Goals

- Patient to have proper neuromuscular control and posture with stabilization and strength exercises
- Initiate light strengthening and progress to independent with long term home exercise program
- Release soft tissue restrictions/muscle spasm/scar
- Body mechanics review
- Increase aerobic endurance to 30 minutes

Strength

*Only initiate these once patient can complete Phase I exercises. Then begin with light resistance and slowly progress. Emphasize good posture during each exercise and correct muscle firing of scapula stabilizers and transverse abdominis. (This is **not** a complete list.)*

- **Postural/Scapula Strengthening**
 - Prone scapula strengthening
 - Theraband rows, extensions, external rotation, horizontal abductions, etc.
 - Transverse abdominis isometrics first, then progression
 - Machine rows, lat pull down (keep bar in front of head), free motion machine, etc.
- **Cervical Postural Strengthening**
 - Prone on elbows, quadruped, modified plank position with 10" retraction isometrics
 - Swiss Ball: seated, quadruped stabilization exercises
 - Seated retractions against Theraband
- **Aquatic Exercises**
 - Can add upper extremity flexion/extension, upper extremity abduction/adduction, biceps, triceps, rows

Cardio

- Should be continued to be done daily working up to at least 30 minutes per day (emphasis on walking or stationary bike to start).
- Time frames may vary per patient, consult with Dr. Poulter if you have questions (eg. an avid cyclist with proper bike fit might start sooner).
- Emphasize correct form and equipment setup (eg.: elliptical, bike, walking terrain, etc.).
- When initiating running and sports below, slowly increase in the four to six month time frame.

	No Earlier Than:
Walking Progression	At least 30 minutes a day
Stationary Bike	Two weeks
Elliptical	Four weeks
Hiking	Four weeks
Pilates (Neutral Spine)	Four weeks
Running	6 to 12 weeks

	No Earlier Than:
Yoga	Three months
Outdoor Biking	Three months
Swimming	Three months
Skiing	Four months
Golf	Four to six months
Soccer/Basketball	Four to six months

Flexibility

- **Stretching:** Pecs, thoracic extensions
- **Neural Mobilization:** Performed as needed, gentle with caution not to flare up nerve roots
- **Cervical Active Range of Motion:** Gentle, no overpressure

Manual Therapy

- Soft tissue mobilization, joint mobilization on non-operative joints as needed

Phase III (12+ Weeks): Return to Work/Work Conditioning/ Return to Sport (if applicable)

- No aggressive rotation or side bend range of motion
- Functional/sport/job drills may begin now with supervision
- Possible referral to work reconditioning program