FRONT RANGE
ORTHOPAEDICS & SPINE TEAM

**EDWARD R. ANDERSON, MD**
**1830 N. Franklin St, Suite 340**
**Denver, CO 80218**
**PHONE: (303) 318-3330 FAX: (303) 812-4221**

**www.FROST-clinic.com**

**COMPREHENSIVE ADULT SPINE, ADULT TOTAL HIP AND KNEE RECONSTRUCTION, AND ORTHOPAEDIC TRAUMATOLOGY/FRACTURE MANAGEMENT**

**Patient Name:**_____

**Diagnosis:** _____

# Cervical Fusion Physical Therapy Prescription

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

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

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

**Phase I (0-6 weeks): Protective Phase**

**Therapy**

- 1-2 visits (if appropriate)

**Precautions**

- No Bending, Lifting, Twisting (**No BLT**), pushing and pulling: 5-10 pounds or more for 6 weeks
- Limit sitting, including in the car, to no more than 30 minutes at a time (standing/walking breaks are encouraged).
- 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 a home exercise program for 12 weeks (normal movements with activities of daily living are okay). Exercises in the first 2 weeks, scapular retractions only. Limit exercise that results in sweating until the surgical wound has healed.

**Goals**

- Diminish pain/inflammation and minimize upper extremity radiating symptoms (ice, modalities as needed).
- Learn correct posture, body mechanics, transfers.
- Focus on cardio exercise program, increasing tolerance to 30 minutes, 2 times a day.

**Education**

- **Posture Education:** Sitting Posture with Lumbar Roll at All Times; Frequent Change in Positions, Avoid Prolonged Flexion (Books, Phones, iPads, Etc.), Sleeping Positions.

- **Body Mechanics:** Light lifting, transfers (include logrolling) positioning, etc.
- **Driving:** When off narcotic pain medications, and patient feels that they are safe enough to drive, able to react to avoid accidents/drive defensively without hesitation. Dr. Anderson does not clear patients to drive, this is an individual decision for each patient.

**Exercises**

- **Cardio:** Walking or stationary bike 2 times a day, 10 minutes each session to start
- **Scapular retractions:** Emphasis on neuromuscular control (eliminate shrug),10-20 second isometrics
- **Light stretching:** Pecs only (example: supine over a towel)

**Phase II (2-6 Weeks): Strengthening Phase**

**Therapy**

- Starting at week 2, 2-3 times per week, 4 or more weeks

**Precautions**

- Keep spine in neutral and good posture for strengthening with focus on proper neuromuscular control
- Lifting, pushing and pulling less than 5-10 pounds until 6 weeks
- Gentle active range of motion only (**No** passive stretching or aggressive range of motion)

**Goals**

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

**Flexibility**

- **Cervical Active Range Of Motion:** Emphasis on retractions, gentle range of motion only
- **Stretching:** Pecs, thoracic extensions
- **Neural mobilization:** Performed as needed, gentle with caution not to flareup nerve roots

**Manual Therapy**

- Soft tissue mobilization for restriction and spasm

**Strength**

Only initiate these once patient can complete phase 1 exercises. Then begin with light resistance and slowly progress. Emphasize good posture and correct muscle firing of scapular stabilizers during each exercise. (This is not a complete list.)

- **Postural/Scapular Strengthening**
  - Scapular retractions first (eliminate shrug)
  - Prone scapular strengthening
  - Thera-Band rows, extensions, external rotation, horizontal abductions, etc.
  - Transversus abdominis isometrics first, then progression

        - Machine rows, lateral pulldown (keep bar in front of the head), free motion machine, etc.
    - **Cervical Postural Strengthening**
        - **Deep Cervical Flexors:** Emphasis on correct neuromuscular control, 10-20 second isometrics to start
        - Prone on elbows, quadruped, modified plank position with 10-20 second retraction isometrics
        - **Swiss ball:** Seated, quadruped stabilization exercise
        - Seated retractions against Thera-Band
        - Cervical isometrics if needed

**Cardio**

- Should be continued to be done daily working up to at least 30 minutes/day (emphasis on walking or stationary bike to start).
- Time frames may vary per patient, consult with Dr. Anderson if you have questions (example: An avid cyclist with proper bike fit might start sooner).
- Emphasize correct form and equipment set up (example elliptical, bike, walking training, etc.).
- When initiating running and sports listed on the following page, slowly increase in the 6 to 8-week timeframe.

| | **No Earlier Than:** |
|---|---|
| Walking Progression | At least 30 mins/day |
| Stationary Bike | Gradual increase in resistance at 4 weeks |
| Pilates (neutral spine) | 4 weeks |
| Outdoor Biking | 4 weeks |
| Hiking | 4 weeks |
| Elliptical | 6 weeks |
| Skiing | 6 weeks |

| | **No Earlier Than:** |
|---|---|
| Yoga | 6 weeks |
| Swimming | 6-8-week progression |
| Running | 6-8-week progression |
| Soccer | 6-8-week progression |
| Basketball | 6-8-week progression |
| Golf | 6-8-week progression |
| | |

**Aquatic Physical Therapy**

- After 6 weeks, if available, once incision has healed)
- Transversus abdominis bracing during all exercises and good head position
- Walking all directions, balance, lower extremity and upper extremity strengthening

**Phase III (6+ Weeks): Return to Work/Work Conditioning/Return to Sport (If Applicable)**

- No lifting restrictions after 6 weeks.
- Continue to progress strengthening exercises from Phase II
- Continue any manual therapy, stretching, etc. from Phase II as appropriate
- Functional//drop drills may begin now with supervision. See time frames above for sport time frames.
- Possible referral to Work Conditioning/Work Hardening program.