

<b>Patient Name:</b> _____
<b>Diagnosis:</b> _____
<b>Notes:</b> _____

## Lumbar Laminectomy 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

### Phase I (0 to 2 Weeks): Protective Phase

#### Therapy

- First visit at two weeks post-op (outpatient)

#### Precautions

- Avoid bending and twisting, lifting, pushing and pulling **20 pounds or more for two weeks.**
- Limit sitting, including the car, to no more than 30 minutes at a time (standing/walk breaks).
- No extension range of motion, nor rotation exercises for eight weeks.

#### Goals

- Diminish pain/inflammation and minimize lower extremity radiating symptoms (ice, modalities as needed).
- Learn correct body mechanics, transfers, positioning.
- Achieve proper muscle firing for transverse abdominis, multifidi and glutes.
- Focus on walking program, increasing tolerance to at least 10 minutes, two times a day.

#### Education

- **Postural Education:** Upright sitting posture with lumbar roll at all times, frequent changes in positions and sleeping positions
- **Body Mechanics:** Lifting, transfers (include log rolling), positioning, etc.

## Exercises

- **Walking Program:** Begin one to two times a day for ten minutes. Progress as tolerated.
- **TA Bracing:** 10" isometrics with normal breathing (without pelvic tilt)
- **Multifidi:** 10" isometrics with normal breathing in prone (if able to tolerate)
- **Glute Sets:** 10" isometrics with emphasis on proper glute firing (not hamstring)
- **Light Stretching:** Hip flexors, quads, hamstring, gastrocs

## Phase II (2 to 6 Weeks): Initial Strengthening Phase

### Therapy

- One to two times a week, for four or more weeks

### Precautions

- Keep spine in neutral for strengthening with a focus on proper neuromuscular control, do not progress without good control.
- **Lifting Restrictions:** Begin at 20 pounds and slowly increase to no restrictions at week six.
- No extension range of motion, no rotation exercises for eight weeks.

### Goals

- Complete light strengthening with a neutral spine and correct firing of stabilization muscles
- Able to tolerate at least 30 minutes of cardio a day
- Release soft tissue restrictions/muscle spasm (monitor incision region)
- Independent with body and lifting mechanics

### Cardio

- **Walking Progression:** At least 30 minutes or more
- **Stationary Bike Recumbent:** Can initiate at two weeks

### 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 transverse abdominis. (This is **not** a complete list.)*

- **Transverse Abdominis/Multifidi Progression** (*maintain neutral spine*)
  - Start at table (supine, prone, quadruped) 10" isometrics
  - Progress with upper extremity/lower extremity movements (eg. marches, straight leg raises, upper extremity lift and lowers, planks, etc.)
- **Continue with Proper Glute Activation Exercises**
  - Eg.: prone hip extensions, bridges, side lying clams, side lying 90/90 leg lifts, side lying abduction, quadruped hip extension, bird dog
- **Upper Extremity/Lower Extremity Strength Training** (*once proper transverse abdominis and glute firing achieved*)
  - Step ups, leg press, wall squats, squats, etc.
  - Balance (with transverse abdominis bracing): single leg stance, tandem, foam, etc.
  - Upper extremity light resistive exercises (machines, theraband, free weights)

### Flexibility

- **Stretching:** Hamstrings, gastroc/soleus, quadriceps, hip flexors, piriformis, etc.
- **Neural mobilization:** Performed as needed, gentle with caution not to flare up nerve roots

### Aquatic Physical Therapy (*more than three weeks if available once incision has healed*)

- No rotation and transverse abdominis bracing during all exercises
- Walking all directions, balance, upper extremity/lower extremity strengthening

# Phase III (6 to 8 Weeks): Progression to Advanced Strengthening

## Therapy

- One to two times a week (as needed for return to sport or work)

## Precautions

- No extension range of motion, no rotation exercises for eight weeks

## Goals

- Independent home exercise program for advanced strengthening, return to sport and work.
- Increase lower quarter flexibility and strength with focus on proper transversus abdominis and glute activation.
- Typically released to full activities without restrictions at six to eight weeks (when approved by Dr. Poulter).

## Strength

- Advanced core strength and stabilization exercises:
  - Progress to weight bearing, balance, Swiss Ball, Reformer, etc.
  - Progress to multi-planar exercises with upper extremity/lower extremity
- Progress upper extremity/lower extremity strengthening
- Begin running, agility and plyometrics for return to sport after 8 to 12 weeks (if symptoms stable and cleared by Dr. Poulter)
- Possible referral to work reconditioning program

## Flexibility

- **Lumbar Spine:** More than eight weeks to improve lumbar extension range of motion, but avoid end-range
  - Eg.: prone lying, prone on elbows, press-ups, and/or standing extensions (if no peripheralization)

## Cardio

- 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.).
- Preference of Pilates over yoga. Once returning to Yoga, ensure it with an experienced instructor.
- When initiating running and sports below, slowly increase in the 8 to 12 week time frame.

	No Earlier Than:
Walking	Continue to progress
Stationary Bike	Add resistance
Swimming	Six weeks
Pilates	Six weeks
Hiking	Six weeks
Elliptical	Six weeks

	No Earlier Than:
Outdoor Biking	Six weeks
Skiing	Eight weeks
Yoga	Eight weeks
Running	8 to 12 weeks
Soccer/Basketball	8 to 12 weeks
Golf	8 to 12 weeks