

Patient Name: _____
Diagnosis: _____
Notes: _____

Lumbar Discectomy 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

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).

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 10 minutes or less, 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
- **Transverse Abdominis 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

- Starting at week two, 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.

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 and/or scar
- Independent with body and lifting mechanics

Cardio

- **Walking Progression:** At least 30 minutes or less
- **Stationary Bike Recumbent:** Can initiate at two weeks
- **Stationary Bike Upright:** Can initiate at four weeks (no resistance), six weeks (resistance)

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 glut 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

- **Lumbar Spine:** Four weeks or less to improve lumbar extension range of motion (prone lying, prone on elbows, press ups, then stand extension (if no peripheralization))
- **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 (*less 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)

Goals

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

Education

- Explain to patient that once they have a lower back pain episode, they are predisposed to future episodes, so monitor warning signs.
 - First sign of an exacerbation is **stiffness**. As soon as a patient notices stiffness, resume repeated movement exercise every two hours in proper direction as initially prescribed on day one.
- Continue use of lumbar roll long term preventatively.
- Explain the risk of prolonged static positions (such as sitting on plane, car) and repeated bending/lifting all day long.

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. If 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

Strength

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