**POST-OP LUMBAR DISCECTOMY/LAMINECTOMY**

**When**

<table>
<thead>
<tr>
<th>FOUR TO SEVEN WEEKS</th>
<th>SEVEN TO TEN WEEKS</th>
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<tr>
<td><strong>HX:</strong> Pre-morbid activity level/condition</td>
<td>Review and modify HEP/compliance with post-op precautions.</td>
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<tr>
<td>Return to work plans</td>
<td>Review ability to acquire neutral lumbar spine in all positions, ie) supine, sit and stand.</td>
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<td><strong>PAIN:</strong> Local VS. radicular, support physician’s medication management.</td>
<td>Normal lumbar lordosis and assess lordosis reversal with forward flexion.</td>
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<td><strong>AROM:</strong> Lumbar AROM to patient’s discomfort.</td>
<td>Passive intervertebral joint testing in thoracic spine and levels surrounding surgical site.</td>
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<td><strong>FLEXIBILITY:</strong> Assess hamstrings, deep hip external rotators and hip flexors.</td>
<td>Review ADL/work tolerance and return to work plans.</td>
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<td><strong>PROM:</strong> Lumbar PROM and assess thoracic joint mobility.</td>
<td>Review pain medication management.</td>
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<td><strong>NEURO:</strong> Myotomes, Dermatomes, DTR’s, neural Tension SLR.</td>
<td><strong>Compliance with post-op precautions</strong></td>
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<td><strong>PALPATION:</strong> Scar integrity/muscle guarding.</td>
<td>1. No lifting greater than 10 lb’s.</td>
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<td><strong>BRACE:</strong> If radicular sx’s persist, then consider short term (2-4 wk) bracing to calm reactivity until independent with core strength.</td>
<td>2. No car riding greater than 30 min.</td>
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**Evaluation**

- Post-op precautions
- Body mechanics for lifting and ADL’s
- Sleeping postures/positioning
- Postural education for lumbar neutral spine & prevent postural irritants to neural tension.
- Support a walking program.

**Education**

- Flexibility: Begin patient with stretch for hamstrings, deep hip external rotators and hip flexors as indicated preferably lumbar supported in neutral.
- Strength: Lumbar stabilization in supine.
- Endurance: Cardiovascular program such as UBE with low resistance or treadmill.
- Manual Therapy: Thoracic spine grade I mobilization as indicated, address myofascial component of pain with manual techniques/modalities/scar mobilization.
- Neural glides: As appropriate without irritation.
- Aquatics: Tagaderm for incision if necessary. Begin lumbar stabilization in shallow end.
- Work simulation: Begin ergonomic positional endurance.

**Treatment**

- **Flexibility:** Pt should be independent with home program. Continue to treat deficits and residual muscle tightness.
- **Strength:** Progress lumbar stabilization to standing position. Begin with unloading spine and strengthening while maintaining neutral lumbar spine. Begin supine, modified rectus abdominus training and isolated multifidus strengthening.
- **Endurance:** Progress according to patient tolerance (optimal walking tolerance 30 minutes outside formal physical therapy).
- **Manual Therapy:** Thoracic joint mobilization grade I-II, address myofascial component/scar mobilization.
- **Neural Glides:** Continue if not aggravated.
- **Aquatics:** Begin deep water activity and increase resistance for lower extremities in shallow end.
- **Bracing:** If using brace, begin de-bracing.

**Goals**

- Independent with post-op precautions.
- Independent with understanding of lumbar neutral spine.
- Independence with HEP & walking program.
- Return to work target date, consider restrictions and ergonomics of work place.
- Independent with body mechanics for all ADLs.
- Independence with neutral lumbar spine.
- Independence with HEP & walking program.
- Independent with potential return to work goals
- Target date set for return to work.
**Post-Op Lumbar Discectomy/Laminectomy**

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**Posterior Lumbar Discectomy/Laminectomy**

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**Post-Operative Care**

**Evaluation**

**Posture:** Lumbar neutral spine maintained with full squat or to half kneel position.

**Strength:** Multifidus, rectus abdominis and core strength progression.

**Endurance:** Duration of standing, sitting, and walking tolerance?

**Flexibility:** Any lower extremity flexibility limitations.

**ADL/Work:** Return to work goals (contact employer as necessary). Lifting assessment with 5-10 pounds, floor to counter height.

**Pain:** Medication usage

**Education**

- Body mechanics for lifting and ADL’s. Add dynamic elements.
- Postural education for lumbar neutral spine and how this changes with increasing activity.
- Support a walking program or other cardiovascular endurance program.

**Treatment**

**Strength:** Higher level core strength training/isotonic exercises. Progress toward more dynamic activities while maintaining lumbar neutral spine. Physioball, compliant surfaces and higher level balance activities.

**Coordination:** Simultaneous tasks ie) lifting and carrying in closed and open environments while maintaining lumbar stability.

**Endurance:** Improve overall cardiovascular and core muscle endurance.

**ADL and/or Work:** Simulations as indicated. Lifting progressions to 20-25 pounds as indicated by physician.

**Goals**

- Normal lordosis and reversal of lordosis with forward bending.
- Neutral spine held throughout all changes in postural positions ie) sit to stand, supine to sit, squat to stand, half kneel to stand.
- Independent with pain management.
- Patient to withstand standing rotational perturbations to test multifidus.
- Achieve fifty modified abdominal curls.
- Independent with home walking exercise program
- Progressive return to light duty work.

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**Post-Ten to Twelve Weeks**

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**Post-Twelve to Discharge**

Evaluate any remaining deficits:

- Neutral spine posture
- Range of motion
- Muscle flexibility
- Neurological
- Pain (compliance with pain management)

- Possible full FCA.
- Evaluate compliance with home program.
- Medication usage.

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- Maintaining neutral spine for recreational activities, and how to avoid undue stress in lumbar spine region.
- Emphasis on keeping established core strength and bridging the patient to continued success in their exercise/hobbies.

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- Work simulation with static/dynamic and multi-plane exercise movements while maintaining core stability.
- Progress lumbar stabilization program to home or independent gym.
- Maximize abdominal and back extensor strength.
- Decrease limits of stability for coordination/balance/proproprioeptive type therapeutic exercise (eg. Lifting while climbing stairs, and other simultaneous tasks.)
- Home pain management techniques.
- Referral as indicated for physiatry, pain management, or vocational rehab.

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- Progress to full time work/duty.
- Independent with appropriate strength transitional program (pool and/or land)
- Full functional range of motion – demonstrate reversal of lordosis and/or full lordosis.
- Demonstrate independent neutral spine in all static and dynamic postures and movements.
- Independent with self, pain management, consider percutaneous electrical stimulator.