

# Postoperative Management and Core Stabilization Interventions for a Semi-pro Football Athlete Following

## Lumbar Discectomy: A Case Report

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### Background

- Many cases of low back pain (LBP) are idiopathic in nature, however, LBP in result of a herniated intervertebral disc exerting pressure on the nerve root may require lumbar discectomy to relieve sciatica and radiating pain.
- Although there is evidence to support successful return to work in the general population and return to sports in professional athletes, less is known regarding the interventions that played a role in their return.

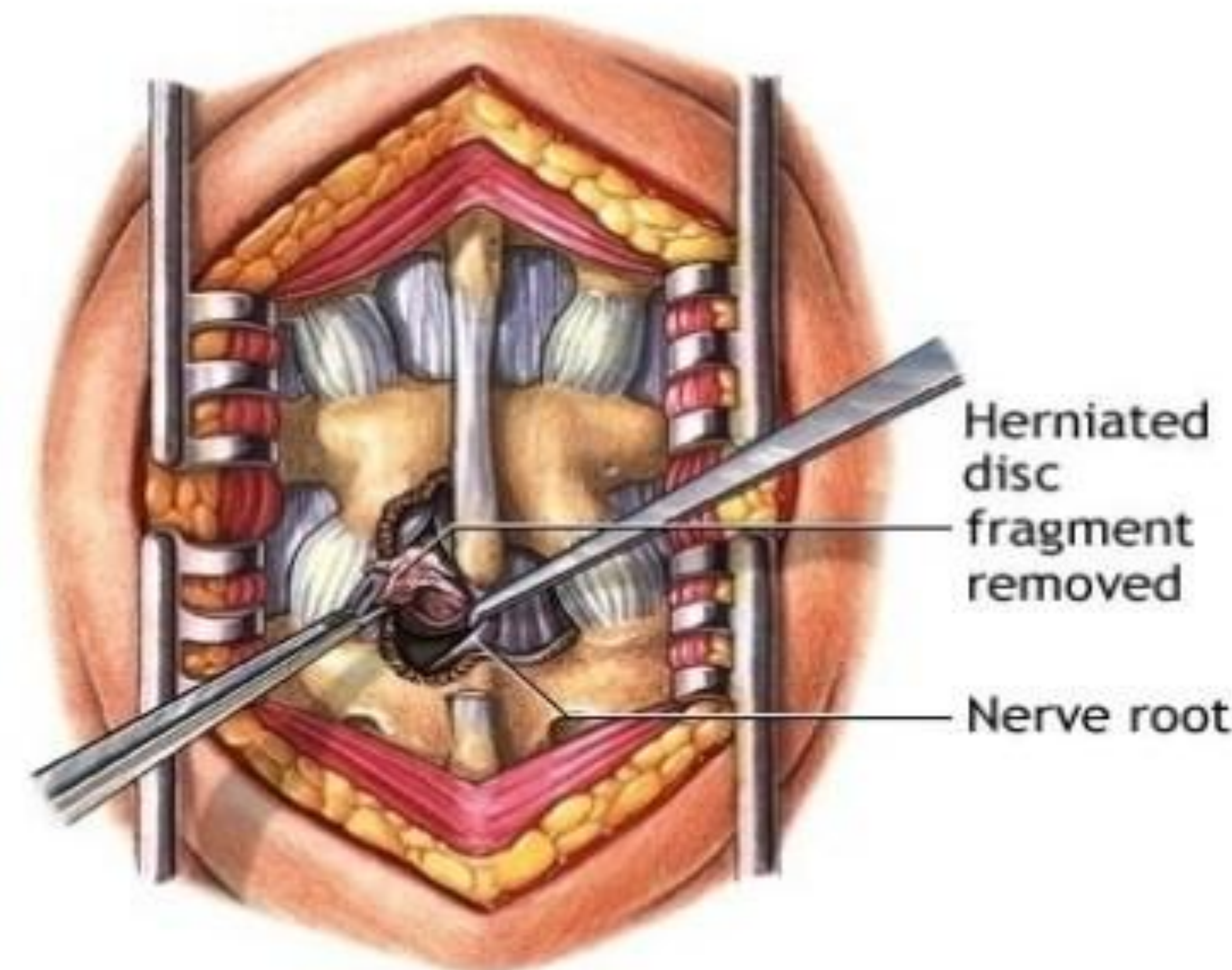


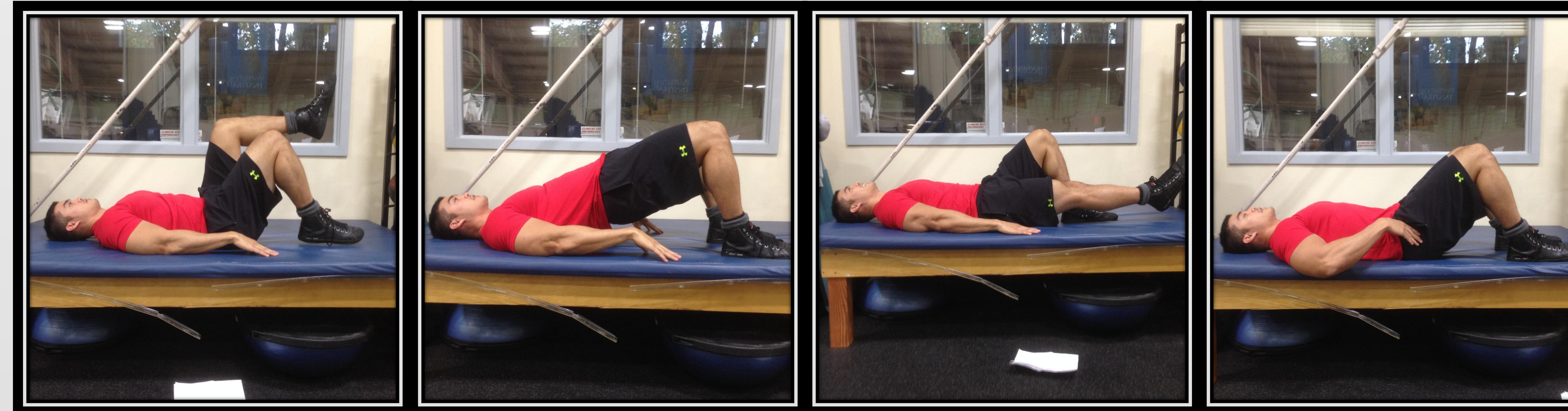
Figure 1. Open lumbar discectomy. Sehati.org.

### Purpose

- The purpose of this case report is to describe the physical therapy management and core stabilization interventions for a semi-pro football athlete following lumbar discectomy who sustained a herniated disc during recreational exercise and football.

### Interventions

- Phase 1 (Neuromuscular re-education and motor control during bed exercises)



- Phase 2 ( Gross body movements and use of equipment )



- Phase 3 ( Dynamic and football related drills)



- Exercise progression based on symptoms of pain and proper demonstration and technique.
- Manual therapy included soft tissue massage, joint mobilization, and strain-counterstrain to improve mobility and decrease pain.

### Outcomes

Measurement	Initial Evaluation	Discharge
	Bilaterally	Bilaterally
Manual Muscle Test		
Hip Flexion	4+/5	5/5
Hip Extension	4+/5	5/5
Hip Abduction	5/5	5/5
Hip Adduction	4+/5	5/5
Knee Flexion	5/5	5/5
Knee Extension	5/5	5/5
Ankle dorsiflexion	5/5	5/5
Toe Extension	5/5	5/5
Eversion	5/5	5/5
Inversion	5/5	5/5
Abdominals (upper)	4/5	5/5
Abdominals (lower)	4/5	5/5
Lumbar multifidus (LM)	4/5	5/5
Range of Motion		
Lumbar Flexion	25% limited	WNL
Lumbar Extension	WNL	WNL
Right Side Bend	25% limited	WNL
Left Side Bend	20% limited	WNL
Hamstring Muscle	Moderately impaired	Minimally impaired
Straight leg raise	+	-
Thomas Test	+	-
Obers Test	+	+
Oswestry Low Back Index	30/100	0/100
Gait	Minimal antalgic gait pattern with a right lateral trunk lean.	Normalized gait pattern, no antalgic gait or lateral trunk lean observed.
Posture	Rounded shoulders, forward head, and decreased lordotic curve.	No changes observed.
Sensation	In tact with crude and light touch.	No changes found.
Joint Integrity / Mobilization of the Spine	Grade 2 grossly.	Grade 3 thoracic and cervical.
Functional Assessment	Poor body mechanics during squat.	Proper demonstration of squat.
Numeric Pain Rating Scale	6/10	0/10

### Conclusion

- Disability and functional limitations following discectomy improved following core exercises, soft tissue mobilization, and education. Research is warranted to investigate the long term implications following discectomy.