

Axial Low Back Pain Protocol

LBP Symptom Modulation- Mobility deficits	<u>LBP Movement Coordination impairments</u>
Initial Evaluation	Evaluate
<ul style="list-style-type: none"> ➤ Red Flags should be considered ➤ Functional Limitations ➤ Lumbar AROM ➤ Segmental Mobility Assessment ➤ Pain Provocation and Alleviation ➤ Neurologic Assessment to include Reflexes, Muscle Performance Test, Sensory, & Neural Tension ➤ Yellow Flags or Mental Impairments Measures such as Fear Avoidance, Pain Catastrophizing Scale, STarT Back, Central Sensitization Inventory 	<ul style="list-style-type: none"> ➤ Red Flags should be considered ➤ Functional Limitations ➤ Lumbar AROM presence of aberrant movement with motion testing ➤ Segmental Mobility Assessment, positive prone instability test ➤ Pain Provocation and Alleviation ➤ Neurologic Assessment to include Reflexes, Muscle Performance Test, Sensory, & Neural Tension ➤ Yellow flags or Mental Impairments Measures such as Fear Avoidance, Pain Catastrophizing Scale, STarT Back, Central Sensitization Inventory
Patient Education	Patient Education
<ul style="list-style-type: none"> ➤ Reduce pain and improve mobility ➤ In home treatment program to consist of postural unloading, bracing if needed, and functional movement training and re-education. 	<ul style="list-style-type: none"> ➤ Education of movement impairment in which patient presents with painful loss of at least one direction with high levels of muscle guarding, mal adaptive behavior. ➤ Education of motor control impairment which includes loss of functional control in the neutral zone, painful arc of motion in multiple directions, and repetitive strain with excess loading
Therapeutic Exercise*	Therapeutic Exercise*
<ul style="list-style-type: none"> ➤ Directional preference exercises ➤ Active rest or immobilization with brace ➤ Activation of the Transversus Abdominus in neutral for functional movement patterns. 	<ul style="list-style-type: none"> ➤ Activation- training to activate hypoactive muscles or isolate movement patterns (TA hollowing out, scapular retraction, and breathing patterns) ➤ Acquisition- to acquire the skill of dissociating or coordinating movement of the lumbar spine and adjacent regions. ➤ Assimilation- to assimilate loaded multiplanar movements into Sports or ADLs ➤ Functional Optimization- interventions which maximize physical performance for higher level of physical activities
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ Manipulation or non-thrust mobilization based on presentation of less than 16 days of pain, no symptoms distal to the knee, lumbar hypomobility, at least 1 hip with greater than 35 degrees of IR, and FABQ score less than 19 ➤ Self-unloading techniques or manual traction 	<ul style="list-style-type: none"> ➤ Manual therapy procedures to address identified thoracic spine, ribs, and lumbo-pelvic mobility deficits.
Goals	Goals
<ul style="list-style-type: none"> ➤ Reduction of pain and improve functional mobility ➤ Lifestyle modifications to avoid re-injury 	<ul style="list-style-type: none"> ➤ Increase Pain free motion in the mid-range ➤ Training pertaining to postures and motions that maintain the involved spinal structures in neutral symptom alleviating positions. ➤ Address coexisting coordination impairments and promote dynamic stability but improve endurance deficits.
<p>* Exercises within each category are to provide the clinician with examples based on evidence- based research, but are not all inclusive</p>	

LBP with Mobility deficits and cognitive or affective tendencies	<u>Special Considerations</u>
Evaluate	
<ul style="list-style-type: none"> ➤ Red Flags should be considered ➤ Functional Limitations ➤ Lumbar AROM worsens pain with sustained end ROM or positions ➤ Segmental Mobility Assessment ➤ Pain Provocation and Alleviation ➤ Neurologic Assessment to include Reflexes, Muscle Performance Test, Sensory, & Neural Tension ➤ Yellow Flags or Mental Impairments Measures such as Fear Avoidance, Pain Catastrophizing Scale, STarT Back, Central Sensitization Inventory 	
Patient Education	
<ul style="list-style-type: none"> ➤ Patient education of 2 positive responses to PCP evaluation of depressive disorders ➤ Patient education about higher scores on the FABQ, or catastrophizing scale ➤ Patient education of the presence of high helplessness, rumination, or pessimism about LBP ➤ Education of the neurophysiology of pain ➤ Graded activity and graded exposure 	
Therapeutic Exercise*	
<ul style="list-style-type: none"> ➤ Stay active avoid bed rest and acknowledge natural history of LBP and low intensity prolonged aerobic activity. Lower intensity if altered central pain processing. ➤ Lumbo-pelvic endurance exercises ➤ Improve movement coordination impairments with work and recreational activities 	
Manual Techniques	
<ul style="list-style-type: none"> ➤ Manipulation and non-thrust mobilization through the lumbar, thoracic and hip region. 	
Goals	
<ul style="list-style-type: none"> ➤ Address the relative cognitive and affective tendencies with patient education and counseling. ➤ Improve the end range of motion 	
* Exercises within each category are to provide the clinician with examples based on evidence based research, but are not all inclusive	

References

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