

## **LUMBAR SPINE PROTOCOL**

### **EVALUATION:**

- Postural Assessment/Structural Observation
- Range of motion of lumbar spine, hips, and pelvis
- Neurological Screen (reflexes, dermatomes, and myotomes)
- Neural Tension Testing
- Joint Testing of lumbar spine and sacroiliac joint
- Ligament Testing
- Muscle Palpation
- Tests of stability and recruitment patterns
- Body mechanics

### **TREATMENT:**

- Joint Mobilization
- Muscle energy techniques
- Manipulation
- Soft tissue mobilization/Myofascial release
- Trigger point release
- Strain/counter strain
- Manual stretching
- Neural mobilization

### **EXERCISE:**

- Range of motion/stretching
- Neural mobilization
- Local stabilization
  - Education of transverse abdominis and multifidus
- Global Stability
  - Control of neutral spine with limb movements
- Global Mobility-Traditional strengthening
  - Strengthening of gluteals, abdominals, back extensors
- Sport-specific training
- Work conditioning, lifting program
- Promote cardiovascular and muscle conditioning program
- Supervise transition to gym program

### **PATIENT EDUCATION:**

Body mechanics  
Positioning  
Postural education  
Taping for biofeedback

**MODALITIES:**

Ice, heat  
Electrical Stimulation  
Ultrasound  
Mechanical traction  
Iontophoresis

**CERVICAL SPINE PROTOCOL**

**EVALUATION:**

Postural Assessment/Structural Observation  
Range of motion of cervical spine and shoulders  
Neurological Screen (reflexes, dermatomes, and myotomes)  
Neural Tension Testing  
Joint Testing of cervical spine and thoracic spine  
Ligament Testing for integrity of protective structures  
(particularly important post MVA/trauma)  
Muscle Palpation  
Tests of stability and recruitment patterns  
Body mechanics  
Screening of other related problems including headaches,  
vertigo and TMJ dysfunction

**TREATMENT:**

Joint Mobilization  
Muscle energy techniques  
Manipulation  
Soft tissue mobilization/ Myofascial release  
Trigger point release  
Strain/counter strain  
Manual stretching  
Neural mobilization

**EXERCISE:**

- Range of motion/stretching
- Neural mobilization
- Local stabilization
  - Education of deep neck flexors
- Global Stability/Motor control training of the cervical spine stabilizers
  - Control of neutral scapula
- Global Mobility-Traditional strengthening
  - Strengthening of the cervical spine stabilizers
- Sport-specific training
- Work conditioning, lifting program
- Promote cardiovascular and muscle conditioning program
- Supervise transition to gym program/yoga/pilates (patient choice)

**PATIENT EDUCATION:**

- Body mechanics
- Positioning
- Postural education
- Taping for biofeedback
- Self-care: Ice, heat, positioning, activities to decrease symptoms

**MODALITIES:**

- Ice, heat
- Electrical Stimulation
- Ultrasound
- Mechanical traction
- Iontophoresis

**SHOULDER PROTOCOL****EVALUATION:**

- Range of motion testing
- Evaluation of cervical spine
- Neural tension testing and neurological stabilizers

Muscular testing of rotator cuff and scapular stabilizers  
Palpation of rotator cuff tendons  
Assessment of joint mobility  
Specific orthopedic testing to determine tissue of origin

**MANUAL THERAPY:**

Active, passive and active-assisted range of motion  
Joint Mobilization  
Soft tissue mobilization

**EXERCISE:**

See exercise progression

**PATIENT EDUCATION:**

Precautions  
Taping for biofeedback, muscular re-education

**MODALITIES:**

Ice, heat  
Electrical stimulation  
Ultrasound  
Iontophoresis

**Specific Post-Surgical protocols used per orthopedic surgeon orders.**

**KNEE PROTOCOL**

**EVALUATION:**

Range of motion testing  
Evaluation of lumbar spine, hips, and sacroiliac joint  
Neural tension testing and neurological screen  
Muscular testing  
Palpation of knee musculature  
Structural observation of patellar alignment  
Flexibility testing of hip and knee  
Testing for ligament stability

Assessment of joint mobility  
Specific orthopedic testing to determine tissue of origin

**MANUAL THERAPY:**

Active, passive and active-assisted range of motion  
Joint Mobilization  
Soft tissue mobilization  
Edema massage

**EXERCISE:**

See exercise progression

**PATIENT EDUCATION:**

Precautions  
Taping for biofeedback, muscular re-education

**MODALITIES:**

Ice, heat  
Electrical stimulation  
Ultrasound  
Iontophoresis  
Biofeedback

**Specific Post-Surgical protocols used per orthopedic surgeon orders.**