SPINAL INJURY ASSESSMENT
ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION
- Patients with potential for unstable spinal injury. Any patient with a mechanism of injury should be evaluated for application of spinal motion restriction (SMR)

CRITICAL INFORMATION
- Omit SMR if all assessment criteria are assessed AND normal.
- If the immobilization process is initiated prior to assessment, STOP and perform spine injury assessment to determine best course of action.
- Studies show that immobilizing trauma victims may cause more harm than good.
- Penetrating trauma victims benefit most from rapid assessment and transportation to a trauma center without SMR.
- Penetrating trauma victims (stabbings, gunshots) to the head, neck, and/or torso SHOULD NOT receive SMR unless there is one or more of the following:
  - Obvious neurologic deficit to the extremities
  - Significant secondary blunt mechanism of injury (e.g. fell down stairs after getting shot)
  - Priapism
  - Neurogenic shock
  - Anatomic deformity to the spine secondary to injury
- Consider SMR in high-risk patients (see algorithm)

DOCUMENTATION- ESSENTIAL ELEMENTS
- Sensation and motor function of all extremities prior and subsequent to application of SMR
- Neurological, motor, sensory, other examination findings & situational circumstances which qualifies patient for omission of SMR

RELATED POLICIES/ PROCEDURES
- Spinal Motion Restriction GPC 13
PROCEDURE

**High-Risk Factors:**
- Age ≥ 65
- Meets Trauma Patient Criteria for Mechanism of Injury
- Axial load to the head (e.g. diving injury)
- Numbness or tingling in extremities

*If any one of the high-risk factors above is present, consider SMR*

**A Reliable Patient** is cooperative, alert and oriented, without signs of drug or alcohol impairment, distracting injuries or a language barrier.

**Spine Exam**
- Palpate vertebral column thoroughly

**Motor/Sensory Exam**
- Wrist or finger extension (both hands)
- Plantarflexion (both feet)
- Dorsiflexion (both feet)
- Check gross sensation in all extremities
- Check for abnormal sensations to extremities (e.g. parathesias)

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**Pass State of Maine?**
- Reliable patient?
- Normal Spine Exam?
- Normal Motor/sensory?

**YES**

**High Risk Factor?**
- Consider Modified SMR

**NO**

**Possible spine injury** (If pediatric or pregnant see GPC 13)

**NO**

**OMIT SMR**

**YES**

**POTENTIAL FOR UNSTABLE SPINAL INJURY?**

**NO**

**OMIT SMR**

**YES**

**Apply modified SMR** (e.g. isolated mid-line neck pain and/or tenderness)

**Apply full SMR** (e.g. neurologic deficit)