

SPINAL IMMOBILIZATION

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patient with actual or potential axial spine trauma as determined during assessment using State of Maine guidelines. Any patient with a mechanism of injury, excluding isolated extremity injuries, should be evaluated for application of spinal immobilization.

EQUIPMENT

- Rigid back board or other rigid immobilization device
- Cervical collar
- Lateral cervical immobilization devices
- Back board straps
- Tape

PROCEDURE

- Maintain spinal axial alignment throughout application
- Evaluate sensation and motor function of all extremities before and after application
- Apply appropriate size of rigid cervical collar (see Special Considerations)
- Place patient on spinal immobilization device with as little movement as possible
- Apply head immobilization (towel rolls, foam head blocks, or equipment) to prevent movement of head
- Immobilize chest, hips and knees in a manner to prevent movement
- Secure head to board at the forehead and chin
- Pregnant patients should be positioned on the left side, supporting fetus
- Recheck sensory and motor function of all extremities
- **In order to omit the application of spinal immobilization the following must apply:**
 - Significant mechanism of injury does not exist
 - Normal neurological examination:
 - Alert and cooperative patient
 - Fully oriented to person, place, time and situation
 - Demonstrating normal sensory and motor function in extremities; without complaints or history of tingling, numbness or paresthesias
 - No mid-line vertebral pain by patient report
 - No evidence of intoxication or impairment from medication, alcohol or other drugs
 - No distracting injuries or emotional conditions
 - No spinal tenderness elicited on palpation (see Special Consideration)
 - No cervical spine pain with *active* movement (i.e., patient should be instructed to gently move head and neck and should have no complaint of pain. Neck should not be moved by provider).

DOCUMENTATION- ESSENTIAL ELEMENTS

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

SPECIAL CONSIDERATION

- Spinal tenderness is determined by a stairstep manual exam over the spinous processes from top to bottom of the spine
- Motor exam
 - Upper extremities
 - Test abduction/adduction of the 4th and 2nd fingers together
 - Test finger/hand extension by pushing down on the extended wrist
- Lower extremities
 - Test plantar flexion by pressing against the soles of the feet (with patient resistance)
 - Test dorsiflexion by pressing against the top of the feet (with patient resistance)
- Sensory exam – upper and lower extremities
 - Assess patient's ability to distinguish sharp and dull sensation in several locations.
- Cervical collar may be omitted for patients with isolated lumbar and/or lower thoracic spine tenderness.
- Modified immobilization techniques should be considered for safer transportation of uncooperative or combative patients
- In the absence of a focal neurologic deficit, routine spinal immobilization is not indicated for patients presenting with:
 - Penetrating trauma to the neck or torso
 - Isolated penetrating trauma to the cranium