

Long Spine Board Immobilization Guidelines: Grant County

- **These guidelines are to be used for patients with trauma, however, these are merely guidelines and DO NOT supersede clinical judgment**
- **Any deviation from protocol MUST be discussed with medical control, when in doubt, apply cervical and spinal immobilization**

Long spine boards (LSB) have both risks and benefits. Historically, LSBs have been overused in EMS. Many patients do not tolerate positioning on the board very well, especially the elderly and patients with respiratory issues, which are exacerbated by the flat position of a LSB and fare poorly. Therefore, *selective* immobilization with a LSB is warranted in certain clinical scenarios. The best use of the LSB may be for extricating an unconscious (or difficult to move) patient, or providing a firm surface for cardiac compressions. However, other devices such as the clamshell board or KED may be appropriate for patient extrication and movement. If the patient would normally be stabilized on a LSB but has a previously existing condition that makes securing the patient to the backboard impractical (such as kyphosis) the EMT or Medic should use their best judgment to secure the patient to the stretcher with the goal of minimizing movement of the spine.

Clinical Indications for LSB immobilization:

1. Immobilize patients with a LSB and cervical collar for any of the following conditions:

- Blunt trauma and altered level of consciousness
- Thoracic or lumbar spinal pain or tenderness
- Neurologic complaint (e.g. numbness or motor weakness) following trauma
- Anatomic deformity of the spine following trauma
- High energy mechanism of injury (rollover, highway speed head-on collision, etc) AND:
 - o Alcohol intoxication or drug induced impairment
 - o Inability to communicate
 - o Distracting injury (fracture, head injury/concussion, facial injuries, dislocation)
- GSW to head or neck (in general stab wounds do not require LSB)

2. Patients complaining of isolated cervical pain or tenderness following trauma who have a GCS of 15 can be managed by application of a cervical collar and securing the patient firmly to the stretcher without the application of a LSB. This may include patients who are found ambulatory at the scene following the accident.

3. Immobilization on a LSB and cervical collar is not necessary when **ALL** of the following conditions are met:

- Normal level of conscious (GCS-15)
- NO cervical, thoracic or lumbar spine tenderness or anatomic abnormality
- NO neurologic findings or complaints (numbness, weakness, pain)
- NO intoxication or drug induced impairment
- NO distracting or associated injuries (ie, long bone fracture, concussion/head injury, facial injury, joint dislocation).

4. These guidelines do not preclude use of LSB for extrication or moving the patient.

5. Efforts should be made, especially in the light of extended transport times to minimize the discomfort associated with LSBs. Padding under the knees if appropriate, light padding on the board such as a blanket or a Back Raft and other comfort measures may benefit the patient without compromising the goal of putting someone on the LSB. Also the clam stretcher, which has been underutilized, provides spinal stabilization while extricating and can be removed once on the stretcher and is an excellent option.

Selective Spinal Immobilization Protocol in Blunt Trauma Patients

Adult patients 18 years and older

*HIGH RISK Mechanisms:

- Axial loading injury
- Rollover of vehicle
- Multisystem injuries
- Compressed roof
- Fall > 20 feet
- Death of occupant in car
- Ejection from vehicle
- Struck by vehicle @ >30 mph
- Severe vehicle deformity, >12 inch intrusion of vehicle
- Highway speed head on collision

