

POSITION STATEMENT

EMS SPINAL PRECAUTIONS AND THE USE OF THE LONG BACKBOARD

National Association of EMS Physicians and American College
of Surgeons Committee on Trauma

ABSTRACT

This is the official position of the National Association of EMS Physicians and the American College of Surgeons Committee on Trauma regarding emergency medical services spinal precautions and the use of the long backboard. **Key words:** spine; backboard; EMS; position statement; NAEMSP; ACS-COT.

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The National Association of EMS Physicians and the American College of Surgeons Committee on Trauma believe that:

- Long backboards are commonly used to attempt to provide rigid spinal immobilization among emergency medical services (EMS) trauma patients. However, the benefit of long backboards is largely unproven.
- The long backboard can induce pain, patient agitation, and respiratory compromise. Further, the backboard can decrease tissue perfusion at pressure points, leading to the development of pressure ulcers.
- Utilization of backboards for spinal immobilization during transport should be judicious, so that the potential benefits outweigh the risks.
- Appropriate patients to be immobilized with a backboard may include those with:

- Blunt trauma and altered level of consciousness
- Spinal pain or tenderness
- Neurologic complaint (e.g., numbness or motor weakness)
- Anatomic deformity of the spine
- High-energy mechanism of injury and any of the following:
 - Drug or alcohol intoxication
 - Inability to communicate
 - Distracting injury

- Patients for whom immobilization on a backboard is not necessary include those with all of the following:
 - Normal level of consciousness (Glasgow Coma Score [GCS] 15)
 - No spine tenderness or anatomic abnormality
 - No neurologic findings or complaints
 - No distracting injury
 - No intoxication
- Patients with penetrating trauma to the head, neck, or torso and no evidence of spinal injury should not be immobilized on a backboard.
- Spinal precautions can be maintained by application of a rigid cervical collar and securing the patient firmly to the EMS stretcher, and may be most appropriate for:
 - Patients who are found to be ambulatory at the scene
 - Patients who must be transported for a protracted time, particularly prior to interfacility transfer
 - Patients for whom a backboard is not otherwise indicated
- Whether or not a backboard is used, attention to spinal precautions among at-risk patients is paramount. These include application of a cervical collar, adequate security to a stretcher, minimal movement/transfers, and maintenance of in-line stabilization during any necessary movement/transfers.

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- Education of field EMS personnel should include evaluation of the risk of spinal injury in the context of options to provide spinal precautions.
- Protocols or plans to promote judicious use of long backboards during prehospital care should engage as many stakeholders in the trauma/EMS system as possible.
- Patients should be removed from backboards as soon as practical in an emergency department.