



TITLE: CERVICAL SPINE STABILIZATION

EMS Policy No. 5115

PURPOSE:

The purpose of this policy is to provide direction to prehospital personnel on the application of cervical spine stabilization.

AUTHORITY:

Health and Safety Code, Division 2.5, Section 1797.220 & 1798 et seq.;

DEFINITIONS:

POLICY:

- I. When applying spinal stabilization techniques, the goal is to prevent gross movement of the spine while using the simplest most effective means possible to provide for patient comfort and the delivery of patient care including airway management.
- II. Prehospital personnel shall apply cervical spine stabilization techniques to patients injured from blunt force trauma in the following circumstances:
 - A. Conscious patients exhibiting one or more of the following signs or symptoms:
 1. Posterior midline neck or back tenderness and/or pain.
 2. Distal numbness, tingling, weakness, or paresthesia.
 3. Paralysis.
 4. Anatomic deformity of the spine.
 5. Distracting circumstances (e.g. emotional distress, communication barrier), or injury (e.g. long bone fracture, degloving or crush injuries, large burns, etc.)
 6. Glasgow coma scale of less than 15 involving blunt force trauma or intoxication.
 - B. If the above criteria are not met, but there is still suspicion of spinal column or spinal cord injury due to mechanism or clinical assessment, cervical spine stabilization should occur.
 - C. There is no role for cervical spine stabilization in isolated penetrating trauma.
- III. Pediatric cervical spine stabilization:
 - A. Apply cervical spine stabilization using an X-Collar™. If an X-Collar™ is not practical use a soft collar and pediatric immobilizer or Kendrick Extrication Device (KED), or any combination of blankets and pillows or

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other options as outlined below.

B. Pediatric Patients and Car Seats:

1. Infants restrained in a rear-facing car seat may be stabilized and extricated in the car seat. The child may remain in the car seat if the stabilization is secure and his/her condition allows (no signs of respiratory distress or shock.)
2. Children restrained in a car seat (with a high back) may be stabilized and extricated in the car seat. Once extricated from the vehicle, using a car seat, cervical spine stabilization should be applied. The child may be stabilized in their car seat if applying an external standard cervical spine stabilization device causes increased agitation, gross movement, and potential further harm.
3. Children restrained in a booster seat (without back) should be extricated using standard techniques with cervical spine stabilization applied.
4. If applying cervical spine stabilization to a patient in a car seat, prehospital personnel must conduct a posterior assessment by palpation.

IV. Adult cervical spine stabilization:

- A. Apply cervical spine stabilization using an X-Collar™. If an X-Collar™ is not practical use any combination of equipment including pillows and blankets or other commercially available immobilization device approved by the EMS Agency to ensure comfort, airway management and spinal stabilization on the gurney.
 1. X-Collar™ should be considered before all other devices.
 2. For those incidents characterized by extrication challenges X-Collar™ and KED may be used.
 3. Patients whose anatomy is not conducive to the use of the X-Collar™ (such as those with severe kyphosis or morbid obesity) may require alternate methods including towels, blankets and pillows.
- B. Long backboards and Miller Boards may be used for extrication or movement at the scene. Long backboards shall not be used to transport a patient to the hospital.
- C. In the presence of neurological symptoms or T-, L- or S- spine tenderness the patient shall be transported with the head of the bed elevated no higher than 30 degrees. Patients who do not meet this criterion may be transported in the position of comfort.

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