# Spinal Care

**Protocol**

**Douglas County KS EMS System** **November 2022**

**Reference Procedures:** Spinal Motion Restriction

**Goals for Patient Care:**

- Select patients for whom spinal motion restriction (SMR) is indicated
- Minimize patient morbidity from the use of immobilization devices

**Background:**

Patients with a traumatic mechanism of injury or concern for possible traumatic mechanism of injury (NOT isolated penetrating trauma to head/face/neck/torso as these patients should not have SMR initiated) should have spinal motion restriction. Be aware of potential airway compromise or aspiration in immobilized patient with nausea/vomiting, or with facial/oral bleeding.

Mechanism alone should not determine if a patient requires spinal motion restriction – however, certain mechanisms are associated with a higher risk of injury so please assess the scene to inform the care.

**HIGHER RISK OF INJURY:**

- Motor vehicle crashes (including automobiles, all-terrain vehicles, and snowmobiles)
- Axial loading injuries to the spine
- Falls greater than 10 feet

Assess the patient in the position found for findings associated with spine injury:

- Altered mental status
- Neurologic deficits (numbness, tingling, weakness, etc.)
- Midline spinal pain or tenderness
- Evidence of intoxication
- Other severe/distracting injuries, particularly associated torso injuries

**PATIENT TREATMENT & EMS INTERVENTIONS:**

Place patient in cervical collar if any of the following are present:

- Patient complains of neck or cervical spine pain
- Any midline cervical spinal tenderness with palpation
- Altered mental status with concerning mechanism of injury
- Any neurologic deficit
- Any evidence of alcohol or drug intoxication with presence of trauma
- Another severe or painful distracting injury is present (e.g. orthopedic injury, etc.)
- A communication barrier that prevents accurate assessment with concerning mechanism of injury.

**If none of the above apply, the patient may be managed without a cervical collar**

**EXTRICATION:**

If extrication is required from a vehicle, after cervical collar placement, adults and children in a booster seat should be allowed to self-extricate as long as they have a non-focal neuro exam and are willing to do so and able to do so without exacerbating any other injuries. For children

already strapped in a car seat with a built-in harness, extricate the child while strapped in his/her car seat

**TRANSITIONING TO COT:**

A scoop stretcher or long spine board may be used for extrication, but it should be removed once on ambulance cot unless logistics prevent timely removal.
Do not transport patients on rigid longboards, unless the clinical situation warrants longboard use (e.g. unstable patient where removal of a board will delay transport and/or other treatment priorities such as airway management, or further resuscitation)

Providers should not manually stabilize (aka: hold c-spine) alert and spontaneously moving patients, since patients with pain will self-limit movement, and forcing immobilization in this scenario may unnecessarily increase discomfort and anxiety

**TRANSPORTING:**

- The preferred position for all patients with spine management is flat and supine.

- Pregnant patients may be allowed to lay on their side (left side) if more comfortable while flat on the cot. They may also require manual, lateral displacement of uterus to the left if circumstance requires them to be supine to avoid hypotension.

There are special circumstances under which raising the head of the bed to 30 degrees should be considered:

- Respiratory distress/airway/oxygenation/ventilation management issues
- Suspected isolate severe head trauma with concerns for elevated ICP

**SPECIAL CONSIDERATIONS:**

In isolation, age should not be the factor in decision-making for prehospital spine care, but the patient's ability to reliably be assessed at the extremes of age should be considered. These unique characteristics may prevent the EMS provider from accurately assessing the patient.

- Communication barriers with infants/toddlers
  - Given the size of pediatric patients, immobilization straps should go across chest and pelvis and not across the abdomen, when possible
- Barriers in communication or understanding in elderly patients with dementia

Patients with severe kyphosis or other medical conditions may not tolerate a cervical collar.

Like everything done in prehospital care, SMR is a medical decision requiring judgement of risks/benefits. As such, patients who are likely to benefit from SMR should undergo this treatment. Patients who are not likely to benefit from SMR, who have a low likelihood of spinal injury, should not have spinal motion restriction.

**Considerations**

Considerations for crews on scene prior to ambulance arrival.

- Assess the patient for criteria above to determine if c collar placement is needed.
- Long spine boards/ scoop stretchers are for temporary use only. Use only as adjunct to move the patient. LSB/ scoop must be removed once on the cot unless that would significantly delay care.
- Ask about pt's medications, If they have been taking medications appropriately, Eating habits.
- Pt's can refuse transport at any time. If pt's found to have normal vitals, BG, mental status without any other complaints consider cancelling ambulance response if department SOP/SOG's allow. If not ambulance should continue to obtain pt refusal.

Give full report to arriving Paramedic of all information gathered, treatments rendered, and whether the patient would like to be transported or not.