

Spinal Motion Restriction

Applies to:	
E	EMT
P	Paramedic

Clinical Indications:

1. Spinal motion restriction (SMR) as determined by spinal injury assessment.
 - a. Blunt trauma – full SMR (C-collar and full-length vacuum splint):
 - i. Major blunt trauma meeting trauma activation criteria
 - ii. Presence of neurological deficit, priapism or suspected spinal shock
 - iii. Obvious anatomic deformity of the spine
 - iv. Significant tenderness on palpation of vertebral column
 - v. Significant blunt trauma mechanism when a patient assessment is unreliable
 - b. Blunt trauma – modified SMR (C-collar only):
 - i. Blunt trauma not meeting above criteria but with pain complaints or concerns based on mechanism or patient risk
 - ii. Examples of patients may include those ambulatory after self-extrication, low-velocity mechanisms and those with no neurologic findings.
 - c. Penetrating trauma – full SMR:
 - i. Neurologic deficit or an obvious deformity of the spine
 - ii. Patients who have both penetrating and a significant blunt injury should be evaluated using blunt trauma criteria

Procedure:

1. Explain the procedure to the patient; assess and record extremity neuro status & distal pulses.
2. Place the patient in an appropriately sized C-collar while maintaining in-line stabilization of the cervical spine by a second provider.
3. If indicated, place the patient on a full-length vacuum splint.
4. Stabilize the patient with straps and head rolls or other similar device. Once the head is secured, the second provider may release manual in-line stabilization.
5. Assess and record extremity neuro status and distal pulses post-procedure. If worse, remove any immobilization devices and reassess.

Note:

1. SMR should reduce, rather than increase, patient discomfort. SMR that increases pain should be avoided. The cervical spine should never be moved if movement increases pain or in the presence of neurological deficits or neck spasms.
2. Suspected spinal injuries should be maintained in a neutral position; position will vary by patient.
3. Routine use of full spinal motion restriction should be reserved for patients with confirmatory physical findings or high suspicion of spinal injury.
4. AMS or presence of an entry/exit wound in proximity of spine are no longer indications for SMR.

