

Southern Illinois Regional EMS System

DD-10 MUSCULO-SKELETAL INJURIES GUIDELINES FOR SPLINTING

ALS/ILS/BLS

Management:

- Patient Assessment and Initial Care protocol
- Consider spinal immobilization
- Oxygen therapy as appropriate
 - 1-6 LPM by cannula: minimal distress.
 - 12-15 LPM by NRB mask: moderate/severe distress with signs of hypoxia.
 - 15 LPM by BVM: inadequate rate/effort, severe distress, unstable.
- Maintain SpO₂ > 94%
- (ALS / ILS) Initiate IV/IO of NS at 20cc/hr. (TKO)
- Assess pain on a scale of 0-10.
- Assess/document PMS
- Remove jewelry and clothing on/around the affected area
- Contact Medical Control
- (ALS/ILS) Analgesia per Pain Management Protocol
- Attempt to splint the extremity in normal anatomical position by using gentle traction.
 - If resistance is encountered or patient complains of extreme pain:
 - Splint in position found
- If no pulses are present in the affected extremity:
 - Provide gentle manual traction to reposition extremity.
 - Only attempt to reposition the extremity once.
 - If pulse returns:
 - Splint in that position to maintain perfusion.
 - If pulses do not return:
 - Rapid Transport
- Use Hare Traction Splint when indicated.
- 1.5. Apply cold pack over injury site.
- 1.6. Immobilize/splint as indicated:
 - 1.6.1. If pulses are lost after applying a traction splint:
 - 1.6.1.1. Gently release traction.
 - 1.6.2. If no pulse returns:
 - 1.6.2.1. Leave splint in place and transport immediately.
 - 1.6.3. Contact medical control.
- 1.7. Elevate extremity injuries if possible after splinting.
- 1.8. Analgesia only per medical control orders?
 - 1.8.1. Proper splinting will promote pain relief.
- 1.9. Anticipate hypovolemia on long bone fractures:
 - 1.9.1. Follow Hypovolemia SOP.
- 1.10. Contact medical control.
- 1.11. Transport ASAP.
- 1.12. Save any bony fragments due to open fractures from the scene and treat as an amputated part:
 - 1.12.1. See Traumatic Amputation SOP.

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- Guidelines for Splinting:
- 2.1. Adequately visualize the injured part.
 - 2.1.1. Clothes should be cut off.
- 2.2. Check and record distal sensation and circulation before and after splinting.
- 2.3. If the extremity is severely angulated and pulses are absent:
 - 2.3.1. Apply gentle traction in an attempt to straighten.
 - 2.3.1.1. This traction should never exceed 10 pounds of pressure.
 - 2.3.2. If resistance is encountered:
 - 2.3.2.1. Splint the extremity in the angular position.
- 2.4. Open wounds should be covered with sterile dressing before applying splints:
 - 2.4.1. Splints should always be applied on the side of the extremity away from open wounds to prevent pressure necrosis.

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- 2.5. Pad the splint well especially if there is any skin defect or bony prominences may press against a hard splint.
- 2.6. When there is a life threatening situation:
 - 2.6.1. Injuries may be splinted as the patient is being moved.
- 2.7. When the injuries are less severe:
 - 2.7.1. Splint all injuries before moving the patient.
- 2.8. If in doubt, splint a possible injury.
- 2.9. Dislocations of elbow, hips, and knees require careful splinting and rapid reduction to prevent severe disability of the affected extremity.