

HEALTHEAST MEDICAL TRANSPORTATION  
MEDICAL OPERATIONS MANUAL

70 SPLINTING

PATIENT CARE GOALS

- Stabilize fractures and dislocations to decrease pain and prevent further injury.

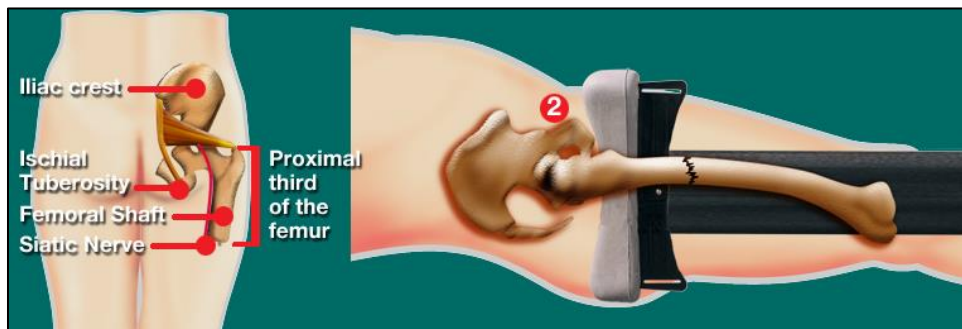
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General Splinting Technique

1. Prepare splinting equipment.
2. Remove clothing and jewelry from the area to be splinted.
3. Manually stabilize the injury site.
4. Assess pulse, motor and sensory function distal to the affected area.
  - If no distal pulse, one attempt may be made to align the extremity using gentle traction.<sup>1</sup> If distal pulse does not return and/or realignment fails, patient should be transported expeditiously.
5. Place a sterile dressing over any open wounds.
6. Apply the splint<sup>2</sup>.
  - If the injury is located at a joint, the bones above and below the joint should be immobilized.
  - If the injury is located on a bone shaft, the joints above and below the bone should be immobilized.
7. Pad the splint to prevent discomfort and pressure points.
8. Secure the splint.
9. Reassess distal pulse, motor and sensory function. If a decrease in any of these functions is noted, the splint should be removed and the injury reassessed.

Using the Sager Traction Splint<sup>3</sup>

1. Follow steps 1-4 in General Splinting Technique.
2. Place the splint between the patient's legs with the padded saddle resting against the ischial tuberosity of the affected leg (see figure, below).



3. Apply the thigh strap around the upper thigh of the fractured limb and tighten lightly.
4. Lift the spring clip and lengthen the distal end of the splint shaft until the pulley is adjacent to

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the heel of the unaffected leg.

5. Apply the ankle harness to the affected leg, ensuring it is tight enough around the ankle that it will not slip when traction is applied.
6. Attach ankle strap to the splint.
7. Extend the distal shaft of the splint to apply traction to the affected extremity. The traction scale should read no more than 15 pounds.<sup>4</sup>
8. Secure the extremity to the splint using Velcro support straps.
10. Reassess distal pulse, motor, and sensory function. If a decrease in any of these functions is noted, the splint should be removed and the injury reassessed.

### Using the Hare Traction Splint<sup>3,5</sup>

1. Follow steps 1-4 in General Splinting Technique.
2. Prepare the splint by doing the following:
  - a. Position the splint beside the uninjured leg with the ischial pad against the iliac crest.
  - b. Adjust the splint to length, extending the splint so that the bend in the frame is even with the heel of the foot.
  - c. Tighten locking collars
  - d. Open and position Velcro straps along the splint.
  - e. Release the ratchet and extend the entire length of the traction strap.
  - a. Place the splint next to the injured leg.
3. Apply the ankle hitch to the patient, ensuring it is tight enough around the ankle that it will not slip when traction is applied.
4. Position the ischial pad so it is firmly seated against the ischial tuberosity.
5. Secure the pubic strap over the groin and high over the thigh
6. Attach the ankle hitch to the traction strap.
7. Reel in the traction strap to apply mechanical traction until pain and muscle spasms are relieved. This is usually achieved when the affected leg is pulled to approximately the same length as the uninjured leg.
8. Secure the remaining Velcro straps around the leg.
9. Reassess distal pulse, motor, and sensory function. If a decrease in any of these functions is noted, the splint should be removed and the injury reassessed.

### DOCUMENTATION KEY POINTS

- Physical findings suspicious of bony injury
- Type of splint applied
- CMS before and after splint application
- Patient response to splint application

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**NOTES**

- <sup>1</sup> Realignment should **not** be attempted in the case of an open fracture or dislocation.
- <sup>2</sup> Splint the injury in the position of most comfort to the patient.
- <sup>3</sup> Traction splints are indicated for use in suspected mid-shaft and distal femur fractures. They may also be used for suspected proximal or mid-shaft tibia and/or fibula fractures.
- <sup>4</sup> The Sager splint may be used for immobilization of bilateral femur fractures. In this situation, a separate ankle hitch should be used for each ankle. The maximum traction applied should not exceed 30 pounds. The legs should be secured together using the large Velcro strap.
- <sup>5</sup> The Hare traction splint will often protrude beyond the foot of the stretcher and interfere with closing of the ambulance doors. Patients using Hare traction splints must be placed onto the stretcher with their feet facing the head of the stretcher.