FAST RESPONSE SCHOOL OF HEALTHCARE EDUCATION
EMERGENCY MEDICAL TECHNICIAN
EMT: TRAUMA – LEARNING SHEET

TRACTION SPLINT

OBJECTIVE: Student will demonstrate the proper technique for applying a traction splint to an isolated fracture of the femur.

EQUIPMENT:
1. Patient.
2. Traction Splint (Hare, Splint, KTD, Etc..)
3. Long Backboard
4. Assistant

Traction Splint Application:

1. Takes body substance isolation precautions.		
2. Explains the procedure to the patient.		
3. Has assistant manually stabilize the injured leg		
4. Exposes injured extremity.		
5. Removes shoe and sock on injured extremity.		
6. Checks color, motor, sensory, temperature and pulse (CMSTP) on injured extremity.		
7. Selects and prepares the splint for application.		
Specific Traction Splint		
Hare Type Device	**Sager Type Device**	**K.T.D. Type Device**
• Positions splint parallel to the uninjured leg and adjusts length to 10 – 12 inches beyond the foot.	• Places splint between patient's legs, resting the cushion against the groin. Applies groin strap.	• Apply ankle hitch tightly around the leg, slightly above the ankle. Tighten stirrup by pulling green tabbed strap until snug under heel.
• Applies foot strap and directs assistant to apply continuous manual traction.	• Folds the pads on the ankle hitch as needed to fit. Applies ankle hitch and secures under foot.	• Apply upper thigh system by sliding male buckle under the leg, at the knee, and see-saw upward until positioned in crotch area. Engage the buckle. Cinch the strap until traction pole receptacle is positioned at the belt line or pelvic crest.
• Spaces the straps to support the upper and lower leg.	• Extends the splint, providing approximately 10% of the patient's body weight in axial traction. (Max 15 pounds for single leg or 25 pounds bilateral.)	
• While supporting fracture site, directs the assistant to elevate the injured leg while maintaining continuous traction.		
• Positions the splint under the injured leg with the top portion firmly against ischium.	• Applies leg straps; one over the mid-thigh, one over the knee, and one over the lower leg.	• Snap out traction pole. Make sure that each joint of pole is securely seated
• Directs assistant to lower leg onto the device while maintaining traction.	• Applies the foot strap or cravat around both feet to prevent rotation	• Place traction pole alongside the leg so that one section of tubing extends beyond the bottom of the foot. Adjust pole length as required. Insert pole end or ends into
• Secures the groin strap prior to application of mechanical traction.		

		traction pole receptacle.

• Attaches the foot strap rings to winch and twists knob to apply mechanical traction.		• Secure elastic strap around knee.
• Releases manual traction after the mechanical traction is applied.		• Place yellow tab over dart end. Apply traction by pulling red tab. Patient comfort is your primary objective. Traction may be applied smoothly by grasping strap on each side of buckle and simultaneously feeding and pulling with equal pressure.
• Secures the limb straps and mechanical traction device. Does NOT strap over the fracture site or knee.		
		• Finish packaging by applying upper and lower elastic straps. Splint as required
9. Re-evaluates the proximal / distal securing devices		
10. Directs assistant that manual traction may be released (if applied)		
11. Reassesses color, motor, sensory, temperature and pulse (CMSTP) on injured leg.		
12. Immobilize patient to long board to immobilize hip		
13. Secure splint to long board to prevent movement of splint.		

NOTE:

The sager type device or the KTD type device can be applied without elevating the patient's leg, so the application of the manual traction is not necessary using these two devices.

CRITICAL CRITERIA

- Did not take or verbalize BSI
- Did not assess CMSTP in the injured extremity BEFORE and AFTER splinting
- The foot was excessively rotated or extended after splint was applied.
- Releases or orders release of manual traction or stabilization before splint fully applied
- Patient's injured leg is manipulated or moved excessively.
- Final immobilization failed to support the femur or prevent rotation of the injured leg.
- Did not secure the ischial strap before taking traction.
- Secures leg to the splint before applying mechanical traction (except where noted on the KTD type device)
- Failure to manage the patient as a competent EMT
- Exhibits unacceptable affect with patient or other personnel
- Uses or orders a dangerous or inappropriate intervention