

5. While firmly holding the limb/body with one hand so that it will not move, apply firm pressure directly over the wound with the palm of the other hand. To be most effective, pressure should be directed so that the injured vessels lie between where the pressure is applied and an underlying bone.
6. Elevate the limb such that the wound is above the level of the heart.
7. For wounds over the thorax, cover the wound with a chest seal or 3-sided semi-occlusive dressing.

#### B. Tourniquet Use

1. Use of a tourniquet should be considered in the setting of life threatening exsanguination from an extremity when direct pressure and elevation have failed to quickly control the bleeding.
2. Use a commercially produced tourniquet or a blood pressure cuff as the tourniquet if a standard one is not available. The tourniquet should be placed proximal to the wound “high and tight”, leaving at least two inches of uninjured skin between the tourniquet and the wound. For upper extremity injuries, preferred placement is around the upper humerus. For lower extremity, the preferred placement is around the upper femur. Do not place over the knee or elbow.
3. If one tourniquet does not stop the bleeding sufficiently, place a second tourniquet proximal to the first tourniquet.
4. If using a blood pressure cuff, inflate the cuff sufficiently to stop the hemorrhage. Wrap 2 strips of one-inch tape all the way around the cuff to secure the cuff.
5. Mark the time the tourniquet was applied on a piece of tape, placed on the patient. Use ‘TK’ to indicate the significance of the time. Example: TK 1330 hrs.

#### C. Wound Packing

1. Wound packing should be considered in the setting of junctional hemorrhage in which direct pressure has failed to control the bleeding and tourniquet application is not possible due to wound location. Wound packing shall only be performed in junctional hemorrhage (wounds to the groin, axilla, or neck) and SHALL NOT be performed in wounds to the chest or abdomen.
2. Removing clothing from around the wound and clear away excess blood while preserving any clots already formed in the wound. Locate the source of the most active bleeding.
3. Using either roller gauze or hemostatic gauze (if available), pack the wound tightly with gauze, focusing on the area of the most active bleeding. More than one roll of gauze may be required to fill the wound cavity and stop the bleeding.
4. Apply direct pressure to the packed wound, focusing on the area of the most active bleeding. Hold pressure for a minimum of three (3) minutes.
5. After three minutes, reassess the wound for hemostasis. **DO NOT REMOVE THE PACKING FROM THE WOUND!** If bleeding continues, continue to apply direct pressure and rapidly transport the patient to the appropriate facility.
6. If the bleeding appears to be controlled on reassessment, secure the packing with a pressure dressing and initiate rapid transport to the appropriate facility. Reassess the wound frequently for continued bleeding. If more bleeding is observed, reapply direct pressure.

### 7.07 Extremity Splinting Skills [BLS/ALS]

#### A. Repositioning Injured Extremities

1. Injured extremities with apparent fractures should be repositioned only if there is loss of signs of circulation, loss of sensation distal to the deformity, or if it is necessary in order to otherwise care for and transport the patient.

2. Firmly grasp the joint immediately proximal and immediately distal to the injured section and apply opposing manual traction – pulling both joints until the injured section is aligned into an approximately straight line.
3. When repositioning an injured JOINT, traction is generally not required. The distal bone is simply returned to a normal appearing neutral position.
4. After an injury has been repositioned, confirm presence of pulses and sensation in the distal portion.
5. After an injury has been repositioned, the joint above and below, as well as the injured section, should be immobilized.

#### B. Use of Splints

1. The primary objective of field care for suspected fractures is to provide a rigid external support along the entire length of the injured bone.
2. Splints will be used of sufficient length or design, to allow the member to secure and immobilize the adjacent proximal joint, the injured bone, and the adjacent distal joint.
3. After an injury has been immobilized, confirm the presence of distal pulses or capillary refill less than 2 seconds, and normal sensation.

#### C. Use of Traction Splints

1. Traction splints are used primarily for treatment of suspected closed, mid-shaft femur fractures. The largest muscle mass in the human body surrounds the length of the femur. Application of traction reduces the muscle spasm associated with a fractured femur and eliminates much of the pain. It causes alignment of the bone fragments, reduces/controls bleeding and shock, and prevents further nerve, vascular and tissue damage.
2. The Sager® splint is designed for use on adult and pediatric patients. It also can be used on single and bilateral femur fractures.
3. Position splint shaft between the patient's legs, resting the cushion against the ischial tuberosity and apply the thigh strap.
4. Note the absence or presence of distal pulses. Check for sensation.
5. Remove shoe(s), if possible, and apply the ankle harness. Shorten the ankle sling length, as needed.
6. Apply gentle traction to the injured extremity by extending the splint shaft. The recommended pressure should be 10% of the patient's body weight per fractured femur up to 15 pounds.
7. At the hollow of the knees, gently slide the elastic leg cravats through the space, slide to the appropriate position, and secure. Recommended areas to secure are the mid-shaft, the lower legs, and the ankles.
8. After immobilization, confirm the presence of distal pulse/capillary refill of less than 2 seconds, and normal sensation.
9. Contraindications of a traction splint associated with a femur fracture:
  - Pelvic fracture.
  - Bone fragments sticking through the skin.
  - Supracondylar fractures of the distal end of the femur.
  - Fractures of the ankle and foot.
 The above fractures should be splinted as found.

### 7.08 Eye Irrigation [BLS/ALS]

#### A. Indication

1. Treatment of chemical injury to the eye. Serious chemical injury requires irrigation at the site of the injury, before the patient is brought to the emergency department.