



3. Survival is markedly improved when a tourniquet is placed **before** shock develops
4. Properly-applied tourniquets in conscious patients are painful – treat pain with analgesics, but do not loosen a tourniquet to relieve discomfort
5. Arterial pressure points may not be effective in controlling hemorrhage; however, may help slow bleeding while tourniquet is applied
6. Amputated body parts should be transported with patient for possible re-implantation
  - a. It should remain cool but dry
  - b. Place the amputated part in a plastic bag
  - c. Place the bag with the amputated part on ice in a second bag
  - d. Do not let the amputated part come into direct contact with the ice
7. Pediatric considerations:
  - a. External hemorrhage control to prevent shock is critical in infants and young children, due to their relatively small blood volume
  - b. Most commercial tourniquets can be used effectively on children over 2 years of age
  - c. Stretch-wrap-tuck elastic-type tourniquets can be used on any age patient
  - d. Direct pressure and wound packing may be more suitable for infants and young children
  - e. Consult with local online medical direction regarding use of traction splints for femur fractures in young children, to avoid risk of possible nerve damage

### **Quality Improvement**

**Associated NEMSIS Protocol(s) (eProtocol.01)** (*for additional information, go to [www.nemsis.org](http://www.nemsis.org)*)

- 9914083 – Injury - Bleeding/Hemorrhage Control
- 9914097 – Injury - Extremity

### **Key Documentation Elements**

- Vital signs and vascular status of extremity after placement of tourniquet, pressure dressing, packing, and/or splint
- Time of tourniquet placement
- Documentation of signs/symptoms of possible compartment syndrome

### **Performance Measures**

- Proper placement of tourniquet (location, cessation of bleeding)
- Proper marking and timing of tourniquet placement and notification of tourniquet placement to subsequent EMS clinicians and ED personnel
- Appropriate splinting and padding of fractures
- ***National EMS Quality Alliance (NEMSQA) Performance Measures*** (*for additional information, see [www.nemsqa.org](http://www.nemsqa.org)*)
  - *Pediatrics—03: Documentation of Estimated Weight in Kilograms*
  - *Trauma—01: Pain Assessment of Injured Patients*