

PEORIA AREA EMS SYSTEM
PREHOSPITAL CARE MANUAL

Extremity Injury Protocol

Attention should be given to extremity injuries to limit further damage and discomfort for the patient. However, extremity care should never interfere with lifesaving decisions or interventions and should not delay transport of trauma patients.

Signs of extremity injury include:

- Pain
- Deformity
- Contusion
- Tenderness
- Swelling
- Instability
- Crepitus
- Absence of distal pulses

First Responder Care, BLS Care, ILS Care, ALS Care

Care should be focused on assessing the situation and initiating care to assure the patient is maintaining an airway, is breathing, has a perfusing pulse and beginning treatment for shock.

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient cannot tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary.
3. Control any external bleeding:
 - a. Apply direct pressure and pressure dressing.
 - b. Elevate the extremity if possible.
 - c. Use pressure points.
 - d. Assess distal pulse, motor & sensation.
4. Splint musculoskeletal injuries:
 - a. Immobilize the joints with a rigid splint above and below the injury for long bone injuries.
 - b. Immobilize the long bones with a rigid splint above and below the injured site for joint injuries.
 - c. Assure the joints and bones are immobilized sufficiently to stabilize the injured structures (especially when using a soft splint or pillow).
 - d. Assess distal pulse, motor & sensation.
5. If the extremity is angulated and no distal pulse is present, reduce by gently applying manual traction until the pulse returns.
 - a. Reassess distal pulse, motor and sensation.
6. Amputation cases:
 - a. Control external bleeding.
 - b. Dress, bandage and/or splint the injured extremity.
 - c. Attempt to recover the severed part:
 - Wrap in sterile gauze, towel or sheet.
 - Wet dressing with sterile water or .9% Normal Saline.
 - Place severed part in waterproof bag or container and seal.
 - Place the bag/container in another container filled with ice or cold water.
 - DO NOT immerse the amputated part in any solutions.
 - DO NOT allow the tissue to freeze.
 - Transport the container with the patient.

7. Initiate ALS intercept if needed and transport as soon as possible.
8. **Ondansetron (Zofran):** 4mg PO orally disintegrating tablet for nausea and vomiting
9. Contact the receiving hospital as soon as possible or Medical Control if necessary.

ILS Care

1. **IV Fluid Therapy:** 20mL/kg fluid bolus if the patient is hypotensive to obtain a systolic BP of at least 100mmHg.
2. **Fentanyl:** *For pain - Choose one of the following:*
 - Intranasal ([See Intranasal Fentanyl Dosing Chart](#))
 - *If unable to initiate IV access.* 50mcg IM. May repeat as needed to a total of 200mcg.
 - 50mcg IV, over 2 minutes. May repeat every **5 minutes** to a total of 200mcg.
3. **Ondansetron (Zofran):** *For nausea and vomiting - Choose one of the following:*
 - 4mg PO orally disintegrating tablet
 - 4mg IM
 - 4mg IV over 2 minutes
4. Initiate ALS intercept if needed and transport as soon as possible.
5. Contact the receiving hospital as soon as possible or Medical Control if necessary.

ALS Care

1. **IV Fluid Therapy:** 20mL/kg fluid bolus if the patient is hypotensive to obtain a systolic BP of at least 100mmHg.
2. **Ondansetron (Zofran):** *For nausea and vomiting - Choose one of the following:*
 - 4mg PO orally disintegrating tablet
 - 4mg IM
 - 4mg IV over 2 minutes
3. **Fentanyl:** *For pain - Choose one of the following:*
 - Intranasal ([See Intranasal Fentanyl Dosing Chart](#))
 - *If unable to initiate IV access.* 50mcg IM. May repeat as needed to a total of 200mcg.
 - 50mcg IV, over 2 minutes. May repeat every **5 minutes** to a total of 200mcg.
4. Contact the receiving hospital as soon as possible or Medical Control if necessary.

Critical Thinking Elements

- **In patients with known renal failure, the Fentanyl dose must be reduced to 25mcg. The dose may be repeated one time to a maximum dose of 50mcg.**
- Avoid use of Zofran in patients with congenital long QT syndrome as these patients are at particular risk for Torsades de Pointes