TRAUMA PROTOCOLS
## Suspected hypovolemia

**Adult**

**NS** 10-20 mL/kg rapid IV. Administer until improvement is seen, fluid overload occurs, or 2 liters is reached.

**Pediatric**

**NS** 10-20 mL/kg rapid IV. Administer until improvement is seen, fluid overload occurs, or 1 liter is reached.

## Patient in extremis from suspected tension pneumothorax

**(blunt chest trauma with decreased or absent breath sounds + poor ventilatory compliance)**

**Adult**

**USE IN BLUNT CHEST TRAUMA ONLY**

Insert 1 to 2 large bore catheters into the 2\(^{\text{ND}}\) ICS, MCL on the affected side(s).

If traumatically induced PEA is present decompress both sides of the chest

*May attach a suitable flutter valve device to catheter(s) after insertion.*

**Pediatric**

**USE IN BLUNT CHEST TRAUMA ONLY**

Insert 1 to 2 large bore catheters into the 2\(^{\text{ND}}\) ICS, MCL on the affected side(s).

If traumatically induced PEA is present decompress both sides of the chest

*May attach a suitable flutter valve device to catheter(s) after insertion.*

## Blunt trauma:

**Transport to closest medical facility.**

**Penetrating trauma:**

**Transport to closest trauma facility.**
## Amputated body part

Rinse with NS to remove loose debris only.

Wrap in gauze moistened with NS or sterile water and place into bag or container.

Place container into another container filled with ice (not dry ice).

All parts must be transported with the patient (when feasible) regardless of the amount of tissue damage.

### Hypotension or hypovolemia present

- **NS** 10-20 mL/kg rapid IV.
  - Repeat as needed to maintain a SBP > 90 mmHg or until 2 liters has been reached.

### Acute pain without hypotension

Refer to page *MED-14 Pain Management* for specific pain control measures.
## A D U L T

Remove rings, bracelets, and other constricting items.

**2\textsuperscript{nd} or 3\textsuperscript{rd} degree < 10\% BSA**
- Cover with cool, **wet** sterile dressings.

**2\textsuperscript{nd} or 3\textsuperscript{rd} degree > 10\% BSA**
- Cover with **dry** sterile dressings.

Consider early intubation if airway compromise develops from inhalation of superheated steam, gases or smoke.

### Second or third degree burns > 10\% BSA without hypotension

**NS** 4 mL/kg x % of BSA.

### Second or third degree burns > 10\% BSA with hypotension

**NS** 10-20 mL/kg rapid IV.
- Repeat as needed to maintain a SBP > 90 mmHg or until 2 liters has been reached.

### Acute pain without hypotension

Refer to page *MED-14 Pain Management* for **Morphine** use.

### Stable:
- Transport to Parkland Hospital.

### Cardiac arrest:
- Transport to closest facility.

## P E D I A T R I C

Remove rings, bracelets, and other constricting items.

**2\textsuperscript{nd} or 3\textsuperscript{rd} degree < 10\% BSA**
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- Repeat as needed to maintain a SBP > 90 mmHg or until 2 liters has been reached.

### Acute pain without hypotension

Refer to page *MED-14 Pain Management* for **Morphine** use.

### Stable:
- Transport to Parkland Hospital.

### Cardiac arrest:
- Transport to closest facility.
**ADULT**

**Modifications to basic CPR guidelines if > 20 weeks pregnant**

Relieve great vessel compression by;
manually displacing the uterus to the left,
or;
placing pillows under the right hip,
or;
slightly tilt the patient to her left side and
leaning her against a provider’s thighs.

On scene intubation is warranted when the
airway is compromised, cardiac arrest is
present, or BVM ventilation is ineffective.

**Suspected hypovolemia**

NS wide open rate.
Administer until improvement is seen, fluid
overload occurs, or 2 liters is reached.

**PEA associated with blunt truncal trauma**
(PEA plus; decreased or absent breath
sounds + poor ventilatory compliance)

Insert 1 up to 2 large bore catheters into
the 2nd ICS, MCL on the affected side(s).
*May attach a suitable flutter valve
device to catheter(s) after insertion.*

**Blunt trauma:**
Transport to closest medical facility.

**Penetrating trauma:**
Transport to closest trauma facility.

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**PEDIATRIC**

**Suspected hypovolemia**

NS wide open rate.
Administer until improvement is seen, fluid
overload occurs, 60 ml/kg
or 2 liters is reached.

**PEA associated with blunt truncal trauma**
(PEA plus; decreased or absent breath
sounds + poor ventilatory compliance)

Insert 1 up to 2 large bore catheters into
the 2nd ICS, MCL on the affected side(s).
*May attach a suitable flutter valve
device to catheter(s) after insertion.*

**Blunt trauma:**
Transport to closest medical facility.

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Relieve great vessel compression by;

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Suspected hypovolemia

**NS** wide open rate. Administer until improvement is seen, fluid overload occurs, or 2 liters is reached.

PEA associated with blunt chest trauma

(PEA plus; decreased or absent breath sounds + poor ventilatory compliance)

Insert 1 to 2 large bore catheters into the 2nd ICS, MCL on both sides of the chest.

*May attach a suitable flutter valve device to catheter(s) after insertion.*
### TRAUMA - CRUSH INJURIES

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### ADULT

#### Foreign body, chemical exposure, acids or riot agents in eye

Gently irrigate with water or NS until 2 liters is used or FB has been dislodged. Do not delay transport to finish irrigation. Loosely bandage both eyes.

#### Alkali chemical exposure

Gently irrigate using water or NS for at least 60 minutes (remember to evert the eyelids). Do not delay transport to finish irrigation. Loosely bandage affected eyes.

#### Super glue exposure to eye

Reassure that glue should not harm their eye (super glue is used for eye wounds). If eyelids are stuck together or to the globe rinse with warm water and patch both eyes. Do not attempt to force open the eyes. Patient should be examined by a physician as soon as practical to rule-out injury.

#### Globe penetration or hyphema present

Place a rigid protective covering over the affected eye and bandage both eyes.

#### Acute eye pain without hypotension

Refer to page *MED-14 Pain Management* for specific pain control measures.

### PEDIATRIC

SAME AS ADULT
### A D U L T

Monitor ECG at all times as hypocalcemia with QT prolongation can occur.

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**Transport all HFA exposure patients to Parkland Hospital.**

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**Transport all HFA exposure patients to Parkland Hospital.**
**ADULT**

Do not examine the genitalia or anus unless active bleeding is present and a dressing is required to control it.

Apply dressings with the utmost care and consideration for the patient’s well-being.

**Hypotension or hypovolemia present**

- **NS** 10-20 mL/kg rapid IV. Repeat as needed to maintain a SBP > 90 mmHg or until 2 liters has been reached.

**Acute pain without hypotension**

Refer to page MED-14 Pain Management for specific pain control measures.

When possible transport to a hospital in the County where the assault occurred. If this is not possible transport to Parkland Hospital.

---

**PEDIATRIC**

Do not examine the genitalia or anus unless active bleeding is present and a dressing is required to control it.

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**Hypotension or hypovolemia present**

- **NS** 10-20 mL/kg rapid IV. Repeat as needed to improved perfusion, 60 mL/kg or 1 liter has been reached.

**Acute pain without hypotension**

Refer to page MED-14 Pain Management for specific pain control measures.

When possible transport to a hospital in the County where the assault occurred. If this is not possible transport to Parkland Hospital.
## Trauma - Snakebite

### Adult

Remove rings, watches, and tight clothing.

**If an upper extremity bite:** splint at or below heart level.

**If a lower extremity bite:** elevate bitten extremity to heart level.

Every 15 minutes mark with a pen the border of advancing edema around the bite site to track swelling.

**Acute pain without hypotension**

Refer to page *MED-14 Pain Management* for specific pain control measures.

**Hypotension or hypovolemia present**

**NS** 10-20 mL/kg rapid IV.

Repeat as needed to maintain a SBP > 90 mmHg or until 2 liters has been reached.

**Hypotension unresponsive to intravenous fluids**

**Dopamine** 5 to 10 mcg/kg/min.

Increase by 5 mcg every 5 minutes until 20 mcg/kg/min is reached.

### Pediatric

Remove rings, watches, and tight clothing.

**If an upper extremity bite:** splint at or below heart level.

**If a lower extremity bite:** elevate bitten extremity to heart level.

Every 15 minutes mark with a pen the border of advancing edema around the bite site to track swelling.

**Acute pain without hypotension**

Refer to page *MED-14 Pain Management* for specific pain control measures.

**Hypotension or hypovolemia present**

**NS** 10-20 mL/kg rapid IV.

Repeat as needed to improved perfusion, 60 mL/kg or 1 liter has been reached.

**Hypotension unresponsive to intravenous fluids**

**Dopamine** 5 to 10 mcg/kg/min.

Increase by 5 mcg every 5 minutes until 20 mcg/kg/min is reached.

**IF HYPOTENSION REMAINS UNRESPONSIVE TO FLUIDS CONTACT BIOCARE MEDICAL CONTROL FOR POSSIBLE USE OF**

**Dopamine** 5 to 10 mcg/kg/min.

Increase by 5 mcg every 5 minutes until 20 mcg/kg/min is reached.
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<td><strong>Atropine</strong> 0.5 mg rapid IV. Repeat every 5 minutes as indicated until the HR is &gt; 60 bpm or 3 mg is reached.</td>
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**ADULT**

**Tooth avulsion**

Do not touch, rub or pull on the root of the tooth. Handle by the chewing surface only.

Carefully rinse with saline or water if needed. Do not use soap, scrub, dry or wrap in tissue or cloth.

If the tooth has been out of the socket for less than 1 hour you may attempt to reimplant it back into the socket once as long as it is not contraindicated.

**Replacement contraindications**

- Significant damage to the socket, altered mentation, inability of patient to protect their own airway, supine position required during transport, cannot understand directions or patient is less than 6 years of age.

If unable to replace place it in a container with (listed in order of preference for use):

1. Hank's Balanced Salt Solution (e.g. Save-A-Tooth) if available
2. Normal Saline
3. Milk with container packed in ice (do not use condensed or powdered)
4. Saliva
5. Water (least desirable)

*Water should be avoided if at all possible as it could further damage the roots and cells*

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**PEDIATRIC**

**Tooth avulsion > age 6 only**

Do not touch, rub or pull on the root of the tooth. Handle by the chewing surface only.

Carefully rinse with saline or water if needed. Do not use soap, scrub, dry or wrap in tissue or cloth.

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**Replacement contraindications**

- Significant damage to the socket, altered mentation, inability of patient to protect their own airway, supine position required during transport, cannot understand directions or patient is less than 6 years of age.

If unable to replace place it in a container with (listed in order of preference for use):

6. Hank's Balanced Salt Solution (e.g. Save-A-Tooth) if available
7. Normal Saline
8. Milk with container packed in ice (do not use condensed or powdered)
9. Saliva
10. Water (least desirable)

*Water should be avoided if at all possible as it could further damage the roots and cells*

---

*Note: All patients with should be evaluated by a Physician or Dentist to determine if any roots remain or other teeth have been injured.*
### ADULT

**Combative or violent patient with possible traumatic brain injury**

Refer to page *MED-05 Behavioral Emergencies* for specific treatment.

**Hypotension or hypovolemia present**

Refer to page *MED-11 Medically Related Hypotension* for specific treatment.

Overhydration can aggravate TBI and large volumes of IV fluid are to be avoided unless absolutely needed to correct hypotension of hypoperfusion.

**Persistent hypotension unresponsive to IV fluids and not due to blood loss**

- **Dopamine** 5 to 10 mcg/kg/min.  
  Increase by 5 mcg every 5 minutes until 20 mcg/kg/min is reached.

All patients are to be transported to a trauma facility for care.

### PEDIATRIC

**Combative or violent patient with possible traumatic brain injury**

Refer to page *MED-05 Behavioral Emergencies* for specific treatment.

**Hypotension or hypovolemia present**

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