Adult General Trauma Criteria

LEVEL 1 CRITERIA: Full Trauma Team Response

Airway, Breathing, and Circulation:

- Intubated (scene or transfer).
- Respiratory rate less than 11 or greater than 28 bpm.
- Unstable airway or need for an emergent airway.
- Hypoxia.
- Systolic BP of 90 mmHg or less at any time.
- Transfer patients from other hospitals receiving blood, vasopressor medications, or fluids to maintain vital signs.

Neurological, Injury Location, and Mechanism of Injury:

- GCS less than 9 with trauma mechanism.
- Spinal cord injury with neurological deficits.
- Hanging with a GCS less than 8 or intubated.
- Gunshot wound or penetrating injury to the chest, neck, or abdomen.
- Gunshot wound to the extremities proximal to elbow or knee.
- Severe multi-system trauma.
- Flail chest.
- Open, depressed skull fracture.
- Unstable pelvic fracture.
- Two or more proximal long bone fractures (humerus, tibia, or femur).
- Traumatic amputation of the extremity proximal to wrist or ankle.
- Crushed, degloved, mangled, pulseless extremity.

APPLICABLE AGES

15 years old or older. If the patient has not reached his or her 15th birthday, refer to the pediatric general trauma criteria.

GERIATRIC CRITERIA (60 years or older)

No additional adjustments for Level 1 trauma activation.

See Burn Injuries below for geriatric burn activation criteria.

BURN INJURIES (all adults)

Burn Injuries:

- Under 60 years old: 50% or greater TBSA with 2nd and/or 3rd degree burns.
- 60 years old and older: 20% or greater TBSA with 2nd and/or 3rd degree burns.
- Chemical burns: Facial involvement and/or 10% TBSA or greater.
- High voltage electrical burns with arrythmias or significant tissue damage.

LEVEL 2 CRITERIA: Partial Team Response

- GCS between 9 and 12.
- Pelvic fracture (excluding isolated pubic rami fracture).
- Femur fracture.
- Penetrating injury to the extremities.
- Blunt abdominal injury with firm or distended abdomen or with seatbelt sign.
- Pedestrian/cyclist thrown, run over, or struck by vehicle at greater than 20 mph.
- Motor vehicle collision: High energy greater than 20 mph with one or more of the following:
  - Unrestrained rollover.
  - Ejection from vehicle (partial or complete).
  - Intrusion of vehicle greater than 12" in occupant compartment.
  - Intrusion of vehicle greater than 18" in any other site.
  - Death of occupant in same compartment.
- Motorcycle collision or all-terrain vehicle (ATV):
  - No helmet.
  - Motorcycle travelling more than 20 mph.
  - High speed ejection.
- Fall from over 20 ft (1 story height is about 10 ft).
- Multiple injuries of 3 or more.
- Known head bleed with trauma mechanism.
- Blast or explosion.

GERIATRIC CRITERIA (60 years or older)

Level 2 geriatric activation INCLUDES primary criteria listed to the left and/or:

- Heart rate greater than 90 bpm.
- Systolic blood pressure less than 110 mmHg.

BURN INJURIES (all adults)

Burn Injuries:

- Under 60 years old: 20% or greater TBSA with 2nd and/or 3rd degree burns.
- 60 years old and older: 10% or greater TBSA with 2nd and/or 3rd degree burns.
- Chemical burns: 5% or greater TBSA.
- Other electrical burns.
- Burns with a temperature of 95°F (35°C) or less.

LEVEL 3 CRITERIA: Consult

- Five or more rib fractures or patients re-presenting for trauma injury issues less than seven days after hospital discharge.

Geriatric (60 years or older): No adjustments for Level 3 trauma activation.

Pediatric General Trauma Criteria

PEDIATRIC-SPECIFIC TRAUMA TEAM ACTIVATION CRITERIA: 0 to 14 years old (up to the 15th birthday)

LEVEL 1 PEDIATRIC CRITERIA: Full Trauma Team Response

Airway, Breathing, and Circulation for Pediatric Level 1 Criteria:

- Intubated (scene or transfer).
- Unstable airway or need for an emergent airway.
- Hypoxia.
- Infants less than 1 year old with respiratory rate less than 20 bpm.
- Any sign of respiratory insufficiency: Hypoxia, use of accessory muscles, grunting.
- Transfer patients from other hospitals receiving blood, vasopressor medications, or fluids to maintain vital signs.
- GCS less than 10 or deteriorating by 2 with trauma mechanism.
- AVPU: Responsive only to pain or is unresponsive.
- Capillary refill greater than 2 seconds or hypotensive BP for age:

  Formula for HYPOtension: Systolic BP less than 70 + (2 x age in years). Alternatively, use the chart shown below:

Age:	Systolic BP:	Age:	Systolic BP:
0 – 1 yo	< 70 mmHg	6 yo	< 82 mmHg
1 yo	< 72 mmHg	7 yo	< 84 mmHg
2 yo	< 74 mmHg	8 yo	< 86 mmHg
3 yo	< 76 mmHg	9 yo	< 88 mmHg
4 yo	< 78 mmHg	≥ 10 yo	< 90 mmHg
5 yo	< 80 mmHg		

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Suspected Traumatic Injuries for Pediatric Level 1 Criteria:

- Neurologic deficits with suspected spinal cord injury.
- ANY gunshot wound or penetrating trauma (pediatric-specific criteria)
- Patient is 3 years old or younger with documented rib fractures.
- Severe multi-system trauma.
- Flail chest.
- Open, depressed skull fracture.
- Unstable pelvic fracture.
- Two or more proximal long bone fractures (humerus or femur).
- Traumatic amputation of the extremity proximal to wrist or ankle.
- Crushed, degloved, mangled, pulseless extremity.

Pediatric Burn Injuries for Level 1 Criteria:

- Age 0 to 13 years old: 10% TBSA or greater (2^{nd}/3^{rd} degree burns).
- Age 14 years old: 50% TBSA or greater (2^{nd}/3^{rd} degree burns).
- Any age: High voltage electrical burns with cardiac arrhythmias or significant tissue damage.
- Any age: Chemical burns involving the face or 10% TBSA or more.

LEVEL 2 PEDIATRIC CRITERIA: Partial Team Response

- Motor vehicle collision: High energy (greater than 20 MPH) with one or more of the following:
  - Unrestrained rollover.
  - Ejection from the vehicle (partial or complete).
  - Intrusion of vehicle more than 12 inches in the occupant area.
  - Intrusion of vehicle more than 18 inches in any other area.
  - Death of another occupant in the same compartment.
- Motorcycle collision or all-terrain vehicle (ATV) --- Any of the following:
  - No helmet.
  - Speed greater than 20 MPH.
  - High speed ejection.
- Pelvic fracture (excluding isolated pubic rami fracture).
- Femur fracture.
- Blunt abdominal injury with firm or distended abdomen or seatbelt sign.
- Child struck or run over by a motor vehicle or trailer.
- Fall greater than 10 feet or 2 to 3 times the child's height.

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- Submersion (drowning) injury.
- Closed skull fracture.

Pediatric Burn Injuries for Level 2 Criteria:

- Age 0 to 13 years old: 5% TBSA or greater (2^{nd}/3^{rd} degree burns).
- Age 14 years old: 20% TBSA or greater (2^{nd}/3^{rd} degree burns).
- Any age: Chemical burns with 5% TBSA or greater.
- Other electrical burns.
- Burns with a temperature of 95°F (35°C) or less.

LEVEL 3 CRITERIA: Trauma Consult

Prehospital:

- Trauma patients not otherwise defined or requiring subspecialty care.
- Five or more rib fractures (excluding 3 year old and younger patients with documented rib fractures [Level 1 criteria]).

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- Patients re-presenting for trauma injury issues less than seven days after hospital discharge.