

# Pediatric Trauma Imaging Guidelines

**Imaging should not delay transfer to definitive care**

This criteria is meant to serve as an adjunct to clinical decision making and is not meant to replace physician discretion. It should be used to determine when CT imaging should be considered and is not meant to provide criteria for clearance of cervical spine or other injuries. When in doubt, contact your nearest ACS verified Pediatric Trauma facility.

**C-Spine**  
Acute Neurologic Deficit (Instead of Plain Films)  
**-OR-**  
As Part of Initial Evaluation of Severe Head Trauma (GCS 3 to 13) Instead of Plain Films  
**-OR-**  
Abnormal or Suspicious C-Spine on Plain Films  
**-OR-**  
High Index of Suspicion for C-Spine Injury Despite Normal Plain Cervical Radiographs

**Chest**  
**Blunt Trauma:**  
**< 13 Years**  
Abnormal CXR (Widened Mediastinum)  
**≥ 13 Years**  
CT as Clinically Indicated  
**Penetrating Trauma:**  
If Concerned for Major Vascular Injury, Consider CT/CTA

**Abd/Pelvis**  
**Consider CT Scan:**  
Requiring resuscitation to maintain adequate vital signs with concerns for abdominal trauma (in conjunction with consult to Pediatric Trauma Center)  
Positive abdominal exam (i.e. pain, distention, rigidity) with positive FAST  
Thoracic wall trauma  
Altered mental status with concern for abdominal trauma  
**Consult with Pediatric Trauma Center:**  
Abdominal bruising/seat belt sign  
Hematuria or rectal bleeding  
Elevated AST (>200), ALT (>125), Amylase, Lipase

**Head**  
**Head CT Recommended:**  
**0-6 Months**  
Suspected Child Physical Abuse  
**< 2 Years**  
GCS < 15  
Altered Mental Status  
Palpable Skull Fracture  
**≥ 2 Years**  
GCS < 15  
Altered Mental Status  
Signs of Basilar Skull Fracture  
**Consider Observation vs CT:**  
**< 2 Years**  
Scalp Hematoma  
History of LOC ≥ 5 sec  
\*Severe MOI  
Not acting normally per caregiver  
**> 2 Years**  
History of LOC  
Vomiting  
\*Severe MOI  
Severe Headache

**Michigan Trauma Coalition**

\*Severe Mechanism of Injury: Motor vehicle crash with patient ejection, death of another passenger, or rollover, pedestrian or bicyclist without helmet struck by a motorized vehicle, falls of more than 3 ft in patients < 2 years of age or more than 5 ft. for patients age 2 yr. or older, head struck by high impact object.

Individual hospital resources must be considered when determining the appropriateness of ordering CT imaging for pediatric patients as well as when determining appropriateness of observation vs CT in the Emergency Department.



## Techniques for Pediatric Plain Film Imaging

Scan QR code to view this resource or visit:  
<https://mitrauma.org/techniques-for-pediatric-plain-film-imaging/>



## Clinical Screening Tools for Child Maltreatment

Scan QR code to view this resource or visit:  
<https://mitrauma.org/clinical-screening-tools-for-child-maltreatment/>