

2023 Pediatric Abdominal Injury Clinical Guideline

Isolated Blunt Abdominal Injury

PED-ED

Start

Age ≥ 5 years

Torso ecchymosis, bruising; seat belt sign
Abdominal pain; tenderness
Abdominal distention; rigidity
Emesis
*Concerning mechanism

Age < 5 years

Torso ecchymosis, bruising; seat belt sign
Abdominal pain; tenderness
Abdominal distention; rigidity
Emesis
*Concerning mechanism

Hemodynamically stable?

CT of abdomen w/ IV contrast

YES

ANY of the following

- Free air
- Pancreas injury
- Hollow organ injury
- Solid organ injury Grade ≥ 3

YES

Transfer to PED1

NO

If hemodynamically unstable
NS 20 mL/kg
If hemodynamics not improved
10-20 mL/kg PRBC
Repeat transfusion as needed and continue during transport
Expeditious transfer

Transfer to PED1

Solid organ injury Grade 1 or 2
Must meet ALL of the following

- Asymptomatic ≥ 2 hours
- Passed oral challenge without antiemetics
- Age-appropriate ambulation
- Dependable social support

YES

**Consider discharge

ANY of the following

- CT negative with symptoms
- Seatbelt sign

YES

**Transfer to PED, PED+ or PED1

*Concerning mechanism

Fall > 10 feet
High speed motor vehicle crash
Auto versus pedestrian
Ejection from vehicle
Physical Abuse

This algorithm does not replace clinical judgment and is not intended to be prescriptive for all patients.

**Treatment should be dictated by clinical exam and concern. Bowel injury may take 12-24 hrs. to present. Consider formal telehealth consultation.



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Isolated low-grade solid organ injuries in children following blunt abdominal trauma: Is it time to consider discharge from the emergency department?

[Leah Plumblee¹](#), [Regan Williams](#), [Dennis Vane](#), [Jingwen Zhang](#), [Aaron Jensen](#), [Bindi Naik-Mathuria](#), [Lauren Evans](#), [Christian J Streck](#)

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Conclusion: No patient with a grade I and II SOI and no OMI following blunt abdominal trauma received intervention, suggesting that patients with low-grade SOI without OMIs could be safely observed and discharged from the emergency department.

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Updated APSA Blunt Liver/Spleen Injury Guidelines

Admission

- **ICU Admission Indicators**
 - Abnormal vital signs after initial volume resuscitation
- **ICU**
 - Activity - Bedrest until vitals normal
 - Labs – q6hour CBC until vitals normal
 - Diet – NPO until vital signs normal and hemoglobin stable
- **Ward**
 - Activity - No restrictions
 - Labs - CBC on admission and/or 6 hours after injury
 - Diet – Regular diet

Procedures

- **Transfusion**
 - Unstable vitals after 20 mL/kg bolus of isotonic IVF
 - Hemoglobin < 7
 - Signs of ongoing or recent bleeding
- **Angioembolization or Operative Exploration**
 - Signs of ongoing bleeding despite pRBC transfusion
 - Angioembolization is not indicated for contrast blush on admission CT without unstable vitals
 - Operative exploration may be indicated when additional procedures or information needed

Set Free

- Based on clinical condition **NOT** injury severity (grade)
- Tolerating a diet
- Minimal abdominal pain
- Normal vital signs

Aftercare

- **Activity Restriction**
 - Restricting activity to grade plus 2 weeks is safe
 - Shorter restrictions may be safe but there is inadequate data to support decreasing these recommendations
- **Follow up Imaging**
 - Routine imaging is not indicated in asymptomatic patients with low grade injuries
 - Consider imaging for **symptomatic** patients with prior high grade injuries

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[https://www.jpedsurg.org/article/S0022-3468\(23\)00225-7/fulltext#%20](https://www.jpedsurg.org/article/S0022-3468(23)00225-7/fulltext#%20)