

ED CT Blunt Head Injury Guideline



TIP: Use the 'CT Brain' clinical decision tool available in Lifechart (ED Activities -> Document) for automated support for this algorithm

START: ED or Trauma Provider is considering CT brain for an injured patient

Universal Inclusion Criteria:
 1) ≥ 18 years of age
 2) There was **blunt** head injury
 3) The injury occurred < 24 hours ago

Universal Exclusion Criteria:
 1) Age ≥ 65
 2) Coagulopathy is present
 3) Focal neurologic deficit
 4) Unstable or Level A activation

Additional Inclusion Criteria for Canadian (any ONE of):

- 1) Loss of consciousness
- 2) Witnessed disorientation
- 3) Amnesia to head injury event

Meets ALL inclusion criteria. NO exclusion criteria present.

Yes

No

STOP: Imaging decision is not in scope of this guideline, decision as per provider judgment.

CANADIAN

Choose Canadian or NEXUS rule

NEXUS

Canadian CT Head Rule

At least one additional Canadian inclusion criterion present?

Yes

No, Go To NEXUS

Review Remaining Canadian CT Head Criteria

- Seizure after injury
- GCS < 15 two hours after injury
- Suspected open or depressed skull fracture
- Any sign of a basilar skull fracture (e.g. hemotympanum, raccoon eyes, Battle's sign, leaking CSF)
- Persistent vomiting (2 or more episodes)
- Amnesia > 30 minutes before event
- Dangerous mechanism (e.g. pedestrian struck, ejected from vehicle, fall from > 3 ft or 5 stairs)

NEXUS CT Head Rule

Review Remaining NEXUS Head CT Criteria

- Evidence of significant skull fracture
- Scalp hematoma (calvarium, not face / neck)
- Altered level of alertness (including GCS ≤ 14)
- Abnormal behavior (e.g. inappropriate actions or unable to cooperate)
- Persistent vomiting (2 or more episodes of forceful emesis)

Any positive criteria from chosen decision rule?

Yes

No

YES CT:
CT brain imaging is recommended

NO CT:
Clinically significant brain injury is reasonably excluded