

# Concussion

- AKA “mild traumatic brain injury”
  - Trauma to the head (direct blow or acceleration-deceleration injury) causing transient change in brain function
  - By definition, normal imaging if performed (not usually indicated)
- [Common symptoms](#)
- Evaluation should include: careful history of event, PMH and prior concussions, thorough [physical exam](#) including neurologic exam
- Refer to ED: GCS  $\leq$  13, focal neurologic exam abnormality, longer than brief LOC, worsening rather than improving symptoms
  - [PECARN imaging algorithm](#)
- [Discharge instructions](#)

# Concussion

## Common Symptoms

- At time of trauma
  - Dazed, stunned, brief LOC
  - Amnesia to event and/or retrograde or anterograde amnesia
  - Answers questions slowly
  - Moves clumsily
- Headache
- Nausea, vomiting
- Double or blurry vision
- Phono or photophobia
- Confusion, sense of “fogginess”
- Feeling off balance, dizziness
- Alterations in sleep, mood; emotional lability

## History & Physical Exam

- History
  - Mechanism of injury
  - Patient’s memory for event and retrograde / anterograde amnesia (can patient recall e.g. opponent, whether winning or losing)
  - Symptoms initially and currently (incl. LOC)
  - Prior concussions ([second impact syndrome](#))
  - [Acute Concussion Evaluation \(ACE\)](#)
- Physical Exam
  - Examine head and neck (cervical spine) for signs of injury
  - Complete neurologic exam
- Concussion-specific testing to consider
  - [Vestibular Ocular Motor Symptoms \(VOMS\)](#)
  - [Balance Error Scoring System \(BESS\)](#)
  - [Sport Concussion Assessment Tool \(SCAT6\)](#)

# Concussion Discharge Instructions

- Most children / teens recover within 1-2 weeks
  - Some may have symptoms for a month or longer
  - Follow-up with PCP if not improving
- Rest for first few days
  - Limit both physical and cognitive activity
  - Prioritize adequate sleep
- If feeling better, gradually return to regular activities
  - Stop an activity if it worsens symptoms
  - Limit screen time while symptomatic
- May need to discuss with school to adjust school assignments
- [CDC discharge instructions](#)
- [CDC guidelines for managing specific post-concussion symptoms](#)
- When can I return to play?
  - Need to have no symptoms
  - Follow [6-step return to play guidelines](#)
  - Can progress to next step every 24 hours, but must stop if concussion symptoms return
  - Advise to discuss with coach – most schools have concussion protocols
- [Acute Concussion Evaluation Care Plan \(detailed plan\)](#)
- [CDC Health Care Provider Resources](#)