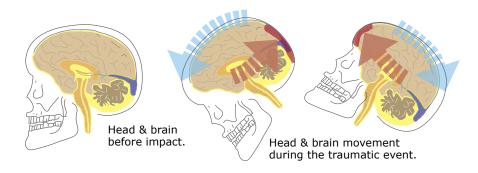
# Traumatic Brain Injuries

The MOI is a direct blow to the patient's head or a direct blow to another part of their body where the force is transmitted to their brain via their spinal column, cord, and associated soft tissue (aka: whiplash).



## No Brain Injury

Numbness/tingling
Dazed/stunned

- Awake with no LOC or amnesia
- No S/Sx of a concussion 2 hours after the traumatic event

#### Mild Concussion

- Awake with no LOC or amnesia
- S/Sx of a concussion develop within 2 hours of the traumatic event and typically (90%) resolve within 7-10 days

# S/Sx of a Concussion

Physical	Cognitive	Emotional	Sleep	
Headache	Feeling mentally "foggy"	Irritable	Drowsy	
Nausea	Feeling slow	Sad	Trouble falling asleep	
Balance problems	Difficulty concentrating	Overly sensitive	Sleeping more than usual	
Dizziness	Difficulty remembering	Nervous	Sleeping less than usual	
Visual problems	Forgetful			
Fatigue	Confused			
Light sensitivity	Answers questions slowly			
Noise sensitivity	Repeats questions			

### Moderate Concussion

- Awake after a temporary LOC and/or amnesia
- S/Sx of a concussion

#### Severe Concussion

- Awake after a temporary LOC and/or amnesia
- S/Sx of a concussion worsen

## Early Increased ICP

- Awake after a temporary LOC and/or amnesia
- S/Sx of a concussion + persistent vomiting

#### Late Increased ICP

- Decreasing level of consciousness (VPU)
- Death

## **Progression of Traumatic Brain Injuries**

Problem	Anticipated Px	Treatment	Evac
No Brain Injury	None	None	None
Mild Concussion	None	Physical & mental rest until S/Sx resolve. Minimize exercise during evac.	Level 3
Moderate Concussion	Severe Concussion	Physical & mental rest until S/Sx resolve. Minimize exercise during evac. Monitor for worsening S/Sx.	Level 3
Severe Concussion	Early Increased ICP	Protect airway. Monitor for persistent vomiting.	Level 2
Early Increased ICP	Late Increased ICP	Protect airway & spinal cord prn. Monitor for decreasing level of consciousness (VPU).	Level 1
Late Increased ICP	Death	Protect airway & spinal cord prn. Monitor for seizures, respiratory & cardiac arrest.	Level 1

A patient may present with any of the above problems, and progress—or not—from that point; a patient may only have one problem at a time.