

Traumatic Brain Injury 101: An overview

PRESENTED BY
DANIELLE M. PLOETZ, PHD
PEDIATRIC NEUROPSYCHOLOGIST

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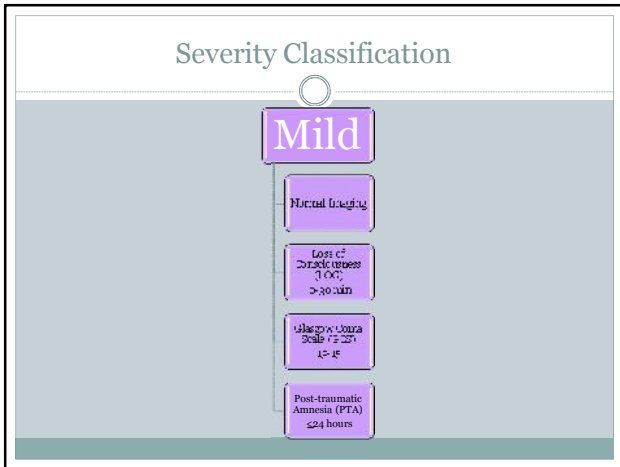
Big Picture Outline

- I. Neuroanatomy and neurophysiology
- II. Defining Brain Injury
 - i. Acquired Brain Injury (ABI) versus Traumatic Brain Injury (TBI)
 - ii. Severity of injury classification
 - iii. Mechanism of injury
 - iv. Primary and secondary injuries
- III. Common Sequelae after TBI and trajectory
- IV. Mild (m) TBI (Concussion) – myth versus fact

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IV. mTBI (Concussion) – Myth Versus Fact

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Myth Versus Fact 1

- ~~mTBI only occurs when there is a loss of consciousness or you get “knocked out”~~
- mTBIs can occur with or without losing consciousness

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Myth Versus Fact 2

- ~~After a concussion you need to refrain from all activity.~~
- After a few days rest, there is actually research to suggest

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Myth versus Fact 3

- Helmets make you concussion proof
- Helmets are designed to prevent skull fractures, not concussions.

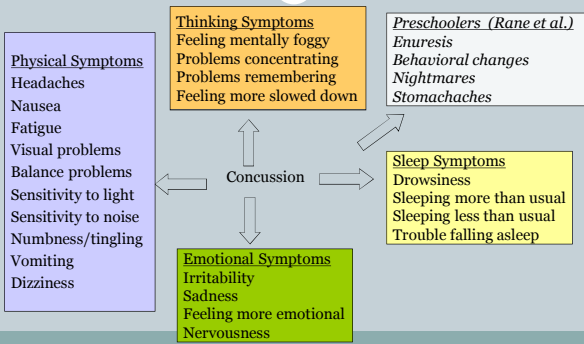
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Myth versus Fact 4

- Concussions all resolve in a week.
- Every concussion is different, and each child is different. Some improve in a day or two, but it's not uncommon for it to take weeks or months to recover from a concussion.

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Common Symptoms of Concussion



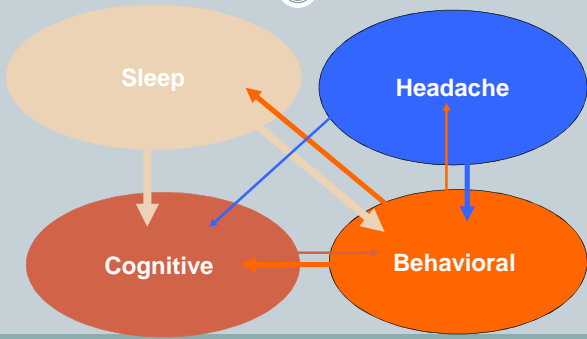
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Most reported symptoms

- **Headache – number 1 reported symptom**
- Nausea
- Dizziness
- Disorientation/Mental status changes
- LOC
- PTA
- Vomiting

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Clinical Considerations

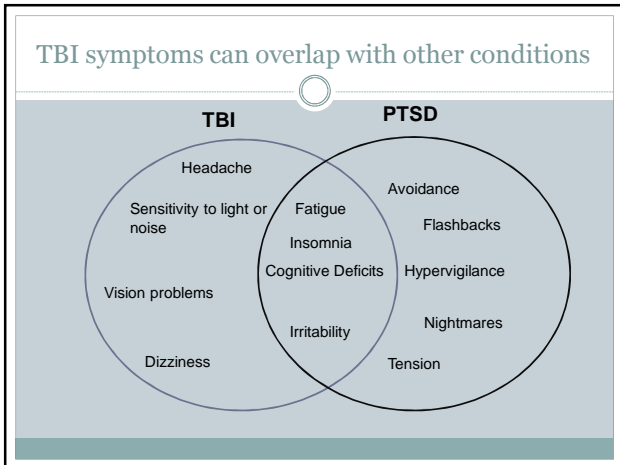


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Factors that Impact TBI



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Guidelines for management of mTBI

- For mTBI there is a consensus statement (McCorry et al., 2016 and new CDC guidelines published in JAMA Pediatrics September 2018) that provide information on diagnosis and management

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Management of mTBI

- Importance for health care professionals to monitor recovery and provide recommendations for:
 - Sleep
 - Return to physical activity
 - Return to cognitive activity
 - Return to school
 - Education about recovery process

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Summary

- A concussion is a type of TBI and referred to as a mild TBI
- It is important to know that people experience a range of symptoms and timeline for recovery and return to activities
- Returning to cognitive and physical activity should be done gradually and if necessary under the guidance of professionals
 - Pacing is recommended as tolerated by symptoms
- **Research is ongoing**
 - To determine ideal duration and intensity of rest AND
 - For recommendations regarding timing of introducing cognitive and physical activity

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Upcoming segments

- Educational management of students with TBI
- Things to consider about the special education process
- Best teaching practices

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