

Concussion and Domestic Violence

Georgia Coalition Against Domestic Violence
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- Understand “What is a concussion?”
- Learn typical signs and symptoms and red flags
- Understand trajectories that affect concussion recovery





What is a Concussion?



What is a Concussion?



- Head injury that occurs when a blow or jolt to the head disrupts the normal functioning of the brain -- Sufficient force that impacts **metabolic functioning** --
- Causes physical, cognitive, sleep, and emotional symptoms that last for varying amounts of time
- Sometimes delayed onset, but may not appear or be noticed for hours and possibly days after injury
- The number and severity of symptoms, the speed of recovery, and the impact of symptoms on academic functioning or other activities will be different for each individual.



Concussion Myths or Facts?

Myth or Fact #1: Millions of Americans sustain a concussion each year.

FACT

An estimated 1.6 - 3.8 million are sustained annually. (84% go undiagnosed!)

Myth or Fact #2: You must be hit on the head to sustain a concussion.

MYTH

Fact: Concussions can occur with any movement or jostling of the head as in whiplash injuries (front to back) or rotational force (side to side).



Myth or Fact #3: Symptoms of a concussion can last hours, days, weeks, or months.

FACT

Returning to activities or the setting where there is an increased chance of head injury before you have completely recovered from a concussion can increase the risk of re-injury and cause more severe or prolonged symptoms.

Cognitive demands, much like physical demands, can worsen symptoms and potentially delay recovery.

Myth or Fact #4: You must experience loss of consciousness to sustain a concussion.

MYTH

Fact - Loss of consciousness only occurs in a minority of cases (less than 10%).



**Typical
Signs and Symptoms**

4 Clusters
May or may not experience any combination:

- **Physical**
 - Headache/Neck pain
 - Fatigue
 - Dizziness/Vertigo
 - Ocular Dysfunction
 - Balance problems
 - Sensitivity to light and/or noise
 - Nausea/Vomiting
- **Emotional**
 - Irritability
 - Sadness
 - Feeling more emotional
 - Nervousness/Anxiety
 - Lack of motivation
- **Cognitive**
 - Difficulty remembering
 - Difficulty concentrating
 - Feeling slowed down
 - Feeling mentally foggy
- **Sleep/ Energy**
 - Drowsiness
 - Sleeping less than usual
 - Sleeping more than usual
 - Trouble falling asleep



Physical Symptoms

- Headache is the most common concussion symptom
- A headache can distract individuals when concentrating
- Intensity of the headache can increase during the day
- Headache may be triggered by fluorescent lights, loud noises, or rigorous tasks

Potential Adjustments/ Accommodations

- Allow "brain breaks" or rest breaks during the day
- Identify triggers and reduce exposure to them
- Increase hydration



Physical Symptoms

- Dizziness/Lightheadedness may be an indication of injury to ocular motor and/or vestibular system
 - The vestibular system helps us to keep our vision stable when we turn our heads and to keep our balance.
- Changing positions may challenge walking in crowded areas and increase symptoms
- Light and sound sensitivity may be provoked by visual stimulus (cell phones, TV, and other screened devices)

Potential Adjustments/ Accommodations

- Provide rest breaks throughout the day
- Avoid loud and crowded places
- Limit or restrict driving
- Minimize time spent on all screens



Cognitive Symptoms

- Difficulty with recall/slowed thinking
- Difficulty concentrating
- Delayed responses to questions/instructions
- Lack of sustained endurance/stamina
- Trouble completing tasks

Potential Adjustments/ Accommodations

- Allow extra time for completing tasks
- Modify work hours
- Reduce amount of tasks to complete
- Allow rest breaks throughout the work day
- Break tasks into smaller chunks



Emotional Symptoms

- Anxiety/ irritability
- May lead to changes in relationships and interactions
- Worry/concern
- Sadness
- Lack of motivation
- Withdrawal from social interactions

Potential Adjustments/ Accommodations

- Encourage the individual to follow the doctor's recommendations
- Encourage the individual to talk to someone they trust
- Assure the individual that this is a temporary condition
- Encourage honesty and transparency



Sleep/Energy Symptoms

- Excessive fatigue can obstruct memory and attention
- Insufficient sleep can lead to drowsiness and headaches
- Excessive napping can lead to sleep cycle disruption

Potential Adjustments/ Accommodations

- Adjust the individual's schedule as needed for a few days to promote rest
- Recommend rest breaks throughout the day
- Reduce late afternoon naps if unable to sleep through the night for 6-8 hours



Red Flags

Call your doctor or go to your Emergency Department with sudden onset of any of the following:

- Headaches that worsen
- Look very drowsy, can't be awakened
- Repeated vomiting
- Unusual behavior change
- Seizures
- Can't recognize people or places
- Increased confusion
- Significant irritability
- Neck pain
- Weakness or numbness in arms or legs
- Slurred speech
- Loss of consciousness

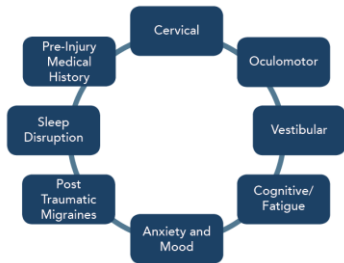


These typically occur during the first 48 hours after an injury and could represent a more serious injury

<https://www.cdc.gov/traumaticbraininjury/symptoms.html>



Trajectories That Affect Concussion Recovery



Research finds TBI's common in Domestic Violence Dr. Eve Valera

Dr. Valera's research showed that of a sample of 99 women who experienced Intimate Partner Violence:

- 75% sustained at least one TBI caused by violence from a partner
- 50% sustained multiple TBI caused by violence from a partner

Additionally, she found brain injury severity was negatively related to memory, learning and cognitive functioning



Gender Differences with Concussions

- Controversial explanation that women are more likely to report a higher number and severity of symptoms, as well as a longer duration of recovery
- Female culture to seek health care
- Little research, but some evidence that females often hide their concussions
- Recently implied possible "Test bias" in how research studies are designed

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Proposed Reasons for these Differences

- Females may be at greater risk for concussion due to what phase they are in their monthly hormones at the time of injury
- Females may be at greater risk for injury as it relates an increase in angular acceleration at the neck at the time of injury
- Females may be at greater risk for concussion based on their neck strength-to-head size ratios

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Clinical Implications

- The medical community does not yet have female-specific guidelines, protocols, care plans or education resources for women who sustain a concussion
- Since more men are diagnosed with concussions than women, a woman and the people around her could judge her symptom pattern and length of recovery by the male experience
- The female may doubt herself when the speed of recovery or severity of her symptoms do not match the male experience she knows
- Others may judge her experience to be abnormal or malingering
- Without proper education for patient, family and community supports, women can experience an additional lack of support, doubt, isolation, and anxiety beyond that which comes with concussion

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Sports Medicine & Concussion Institute Care-A-Van

- ✓ Will travel to you for concussion education and awareness
- ✓ Will provide ImPACT baseline testing



ImPACT for Concussion Management

Immediate Post-Concussion Assessment and Cognitive Testing

Developed by experts who pioneered the field, ImPACT is relied on by clinicians to manage concussions on an individual basis through baseline and post-injury neurocognitive testing. ImPACT's Concussion Management Model meets evolving concussion management standards and serves as a model for the highest level of care and a safe return to activities of daily living for individuals.

- Baseline is a way of tracking your functioning at a healthy state.
- ImPACT measures reaction time, memory, and processing speed and give clinicians an accurate picture of your normal brain function.
- Healthcare providers use baseline test data to compare with post-injury data to determine the extent of the injury.
- Clinicians can also use this data to help decide when the patient is back to normal cognitive functioning.
- The computer assessment takes about 25 minutes to complete.
- ImPACT is FDA approved and stored on a HIPAA protected site.



Concussion Institute GMC-D

- Concussion Institute
- 2 Pediatric/Adolescent/Adult Neuropsychologists
 - 2 Education Coordinators
 - 3 Athletic Trainers
 - 2 Physical Therapists Certified in Vestibular Rehabilitation
 - 2 Administrative & Billing Staff
 - Sports Medicine & Primary Care Physician
 - 2 Neurologists
 - Medical Director

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Additional Resources

www.pinkconcussions.com

Dr. Eve Valera: Intimate Partner Violence and Concussion
International Women's Day Conference March 2018
<https://www.youtube.com/watch?v=HhtWCjEjPQ>

