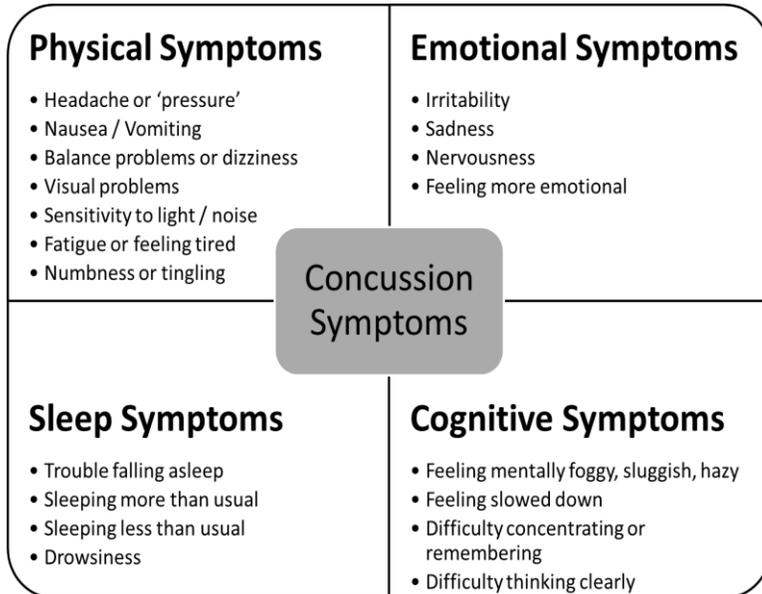


What is a concussion?

While there are many definitions of concussions, in 2017 the Concussion in Sport Group state, **CONCUSSION IS A BRAIN INJURY** and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces and include immediate and transient symptoms. When the brain sustains significant accelerations and decelerations a neurometabolic cascade begins in the brain. This results in energy changes and challenges immediately as well as alteration and injury to the axons in the brain from twisting action. These processes are not visible with typical imaging protocols and so our main clue is signs and symptoms.



What are common signs and symptoms of concussions?

As you can see from the list of these symptoms, which can be immediate and transient, it is obvious why doing school work or playing a sport might be difficult.

You should also notice that it may affect emotions, mood and your response to certain situations. This can be disconcerting, but is not abnormal to experience.

How long does it take to recover from a concussion?

A majority of concussions, resolve in 10-14 days. Please keep in mind that the recovery from concussions is individualized and hard to predict. Tracking your symptoms and what makes them worse and/or better can really be helpful to your healthcare team.

Why is cognitive rest helpful?

As stated in the most recent consensus statement (McCrory et al., 2017), 'Prescribed rest is one of the most widely used interventions. The basis for recommending physical and cognitive rest is that rest may ease discomfort during the acute recovery period by mitigating post-concussion symptoms and/or that rest may promote recovery by minimizing brain energy demands following concussion. There is currently insufficient evidence that prescribing complete rest achieves these objectives. After a brief period of rest during the acute phase (24–48hours) after injury, individuals can be encouraged to become gradually and progressively more active while staying below their cognitive and physical symptom-exacerbation thresholds (ie, activity level should not bring on or worsen their symptoms). It is reasonable to avoid vigorous exertion while recovering. The exact amount and duration of rest is not yet well defined.'

How do symptoms relate to the timing of the injury?

During the initial energy crisis symptoms usually include a migraine headache, sensitivity to light and sensitivity to noise. This is when physical and cognitive rest are typically helpful. During this injury crisis, you are at risk for a second injury that can be fatal. The impairments in neurotransmission and the physical injury of the axons in the brain created by accelerations and decelerations as well as the twisting in the brain lead to impaired cognition, slowed processing speeds, and slowed reaction times. This can make it difficult to concentrate, make you feel foggy, and just overall a bit slow or off mentally.

When can I expect to make-up missed work?

As symptoms begin to decrease you should gradually increase your cognitive load to get back into the classroom full-time. The priority is to resume class attendance as soon as medical clearance is given. The amount of time you will need to complete missed work will likely depend on your course load, courses taken and how quickly you can return to class. Please keep in mind that the recovery from concussions is very individualized, be patient.

Is it possible for me to regular activities (play / extracurricular) before returning-to-academics?

No! Once you are given medical clearance you should slowly return to regular activities but focus on getting to full classroom capacity first.



What are some things my family and friends can watch for to help me monitor recovery?

Sometimes it is helpful to have those close to you tell you or your health care team if they notice behaviors or characteristics of you that are not typical.

These may include:

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can't recall events prior to or after injury
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Forgets class schedule or assignments

What are other resources me, my family or friends can go to for more information?

<http://www.cdc.gov/HeadsUp/>

<http://brain101.orcasinc.com/2000/>