INOVA®
Sports Medicine

Concussion Facts and Information

Inova Sports Medicine Concussion Program

WHAT IS A CONCUSSION?

Concussion is an injury that affects the brain following direct or indirect forces to the head. The disturbance of normal brain function is related to a change in the chemical processes of the brain rather than an injury to the actual structure of the brain. The chemical disturbance does not show up during neuroimaging (X-ray, CT scan, MRI, etc.), which is one of the reasons CT scans, or other neuroimaging studies, are not always completed, or necessary, following concussion.

WHAT TO EXPECT AFTER A CONCUSSION?

Concussion results in a collection of physical, cognitive, emotional and sleep symptoms. Symptoms may increase as you participate in activities that require thinking or enter into busy/stimulating environments. Signs and symptoms typically decrease gradually over a period of time, but may remain longer in select cases.

HOW TO PREVENT A CONCUSSION?

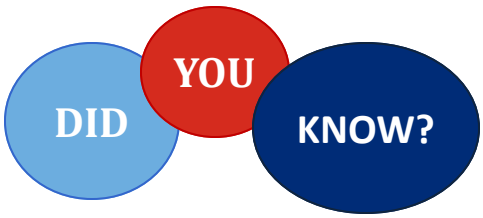
While there is not any protective equipment available to prevent concussion there are strategies that lower your risk. The strategies to decrease the chance of concussion include:

- Using proper technique at all times.
- Practicing good sportsmanship at all times.
- Eating well and drinking plenty of water before, during, and after activity.
- Stop playing right away if you think you have a concussion
- Talk to an athletic trainer or medical professional if you think you or a teammate has a concussion
- Do not return to play until after you are given the ok by a medical professional

COMMON SYMPTOMS

Symptoms are reported by the injured player.

PHYSICAL		COGNITIVE	EMOTIONAL	SLEEP
Headache	Visual Problems	Feeling "foggy"	Irritability	Sleeping More
Nausea/Vomiting	Sensitivity to Light	Feeling slowed down	Anxious	Sleeping Less
Fatigue	Sensitivity to Noise	Difficulty Remembering	More Emotional	Drowsiness
Dizziness	Numbness/Tingling	Difficulty Concentrating	Sadness	Trouble Falling Asleep
Balance Problems			Nervousness	
			Rumination	



Loss of consciousness, or being knocked out, has been shown <u>not</u> to be associated with a prolonged recovery after concussion.

Lovell et al 1999, Collins et al 2003

WHEN TO SEEK EMERGENCY MEDICAL CARE

Persistent or Worsening Headache	Very drowsy, or cannot be awakened	Increasing confusion or irritability
Seizures/Loss of Consciousness (LOC)	Repeated Vomiting	Not recognizing familiar people/places
Neck pain	Strange or unusual behavior changes	Slurred speech
Weakness/numbness in extremities	Significant irritability	Less responsive than usual

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WHAT TO DO IMMEDIATELY AFTER A POSSIBLE CONCUSSION

1. Report it. Don't hide it.
   - Playing through or trying to "tough it out" can often make signs and symptoms worse
2. Remove from play.
   - Anyone who might have a concussion should stop playing right away and not return to play that day.
3. Monitor for changes.
   - Signs and symptoms may not appear right away and may change over a period of hours or even days
4. Get checked out.
   - Only a health care professional can tell you if you have a concussion and when it is OK to begin a progressive return to activity.

DID YOU KNOW?

According to research published in 2016, athletes who stayed in play for **3 minutes or more** after concussion were **8.8 times** more likely to have a **longer than average recovery**.
Elbin et al 2016

HOME MANAGEMENT TECHNIQUES AFTER A CONCUSSION

After the initial 24 hour period, limit over-the-counter medications to 2-3 doses per week. Until your appointment with our concussion specialists, you should avoid activities that could pose risk for head injury. However, prolonging rest and avoiding normal day-to-day activities can lead to the development of additional symptoms and therefore it is recommended that you **ESTABLISH AND MAINTAIN A REGULATED SCHEDULE**, as soon as possible:

DIET	Eating breakfast, lunch and dinner each day is important, even if three meals are not typically eaten.
HYDRATION	It is important to stay well hydrated.
SLEEP	Stick to a strict sleep schedule, with a regular bedtime and wake-up time. We recommend obtaining 7-9 hours each night, with limited naps of no more than 30 minutes. It is not advised or necessary to wake up every hour after a concussion.
PHYSICAL ACTIVITY	It is beneficial to take walks and/or engage in light non-contact physical activities, following the injury. Once you are seen by our team of concussion specialists, additional recommendations will be discussed.
STRESS	Try to reduce additional stress, nervousness and anxiety by limiting focus on the injury and symptoms. Staying in a dark room or being overly withdrawn should also be avoided.

FXA players, receive priority access to appointments with Inova's physician-based team of concussion experts.

Have questions? Need to schedule an appointment?

Contact the 24/7 concussion hotline at 703.970.6427 or visit inova.org/SportsMedicine

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