

# 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?

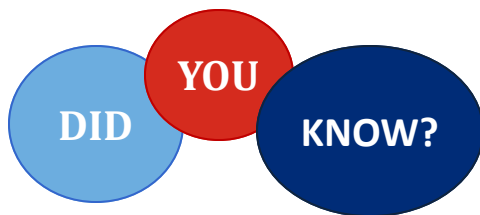
While there is not any protective equipment available to prevent concussion there are strategies that lower your risk. The strategies to decrease the chance of concussion include:

- 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 adult, coach, parent, or athletic trainer 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 children/athletes.*

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 not to be associated with a prolonged recovery after concussion.**

*Lovell et al 1999, Collins et al 2003*

### WHEN TO SEEK EMERGENCY MEDICAL CARE

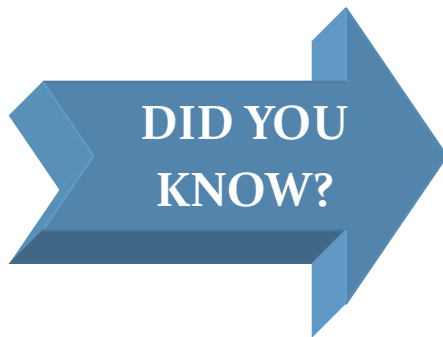
Persistent or Worsening Headache	Very drowsy, or cannot be awakened	Increasing confusion or irritability
Seizures/Loss of Consciousness (LOC)	Repeated Vomiting	Not recognizing familiar people/places
Neck pain	Strange or unusual behavior changes	Slurred speech
Weakness/numbness in extremities	Significant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



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:

<b>DIET</b>	Eating breakfast, lunch and dinner each day is important, even if three meals are not typically eaten.
<b>HYDRATION</b>	It is important to stay well hydrated.
<b>SLEEP</b>	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.
<b>PHYSICAL ACTIVITY</b>	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.
<b>STRESS</b>	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.

Athletes from affiliated organizations, receive [priority access to appointments](#) with the physician-based team of specialists from the Inova Sports Medicine Concussion Program.

**Have questions? Need to schedule an appointment?**

Contact the **24/7** concussion hotline at **703.970.6427** or visit [inova.org/SportsMedicine](http://inova.org/SportsMedicine)