

## HEAD INJURY FACT SHEET

Concussion is a traumatic brain injury that interferes with normal brain function (without structural damage). A concussion initiates pathophysiological and chemical changes in the brain that generally take at least several days to resolve. A concussion always produces symptoms immediately after the trauma; however, some symptoms of a concussion may appear hours later. Common symptoms include:

Headache	Neck pain	Sensitivity to light or noise
Memory difficulties	Odd behavior	Repeats the same answer or question
Vomiting or nausea	Irregular sleep patterns	Nervous, anxious, more emotional
Focus or concentration issues	Slowed reaction	Fatigue, low energy, drowsiness
Balance problems	Blurry vision	Confusion, feeling “in a fog” or not feeling “right”

Please observe your child carefully and take the necessary precautions until a professional medical opinion from your regular health care provider can be obtained promptly in the next day or two. If your child starts to show signs of significant **worsening** of these symptoms as time elapses (instead of improving as time goes by), or there are any alarming signs and symptoms you notice about the behavior or conduct of your child, you should consider seeking **immediate medical attention** at the emergency department of your local hospital.

These **red flag warning signs** include: decreasing level of consciousness, severe worsening headache, stiffening of the neck, blood or clear fluid dripping from the ears or nose, unequal pupils, loss of vision, increasing pain in the head or neck, slurred speech, persistent ringing in the ears, weakness in either arm or leg, repeated vomiting, seizures, increasing confusion or irritability, inability to recognize people or places, unusual behavior change

Please consider the following guidelines regarding your child:

- (1) Refrain from participation in **all** physical activities while **any** symptoms are present
- (2) **Brain rest** is the best method for keeping concussion symptoms to a minimum and speeding the process of recovery. This rest includes not only avoiding all physical activity, but minimizing cognitive activity (using your brain to think out mental tasks) and minimizing social activity (which also requires increased brain activity).
- (3) Good advice: no texting, no video games, no computers, no reading, no driving, no loud music. Sleep is beneficial for the first few days — do not awaken your child during the night to check for symptoms. Attending school while still having a significant level of symptoms is counterproductive — school is a very challenging and stimulating environment likely to delay resolution of symptoms and proper brain healing.
- (4) Refrain from any medicine unless (a) it is a current prescribed or authorized medicine that needs to be taken regularly, and/or (b) is newly prescribed by a licensed health care professional.

If you are unclear and have questions about the above symptoms, please contact your licensed health care professional.

**Please be advised that an athlete who sustains a concussion may not return to play until there is successful completion of a multi-step graduated return-to-play protocol AND there is a signed clearance note from a licensed medical doctor who is knowledgeable in concussion treatment and management.**

### “COCOON THERAPY”

You have been diagnosed with a concussion. If you increase the blood flow to the brain while you are recovering from a concussion, you will destroy very vulnerable, damaged brain cells. Exercise increases the blood flow to the brain and mental exercise can be just as damaging as physical exercise. Since every concussion is different, symptoms may vary from person to person. In order to help you recover faster, the following is recommended:

Not attending school	No text messaging	No TV (initially)	No hot tubs
No reading	No I-Pod use	No socializing with friends	
No computer use	No standardized tests (SATs)	No school functions (sporting events, dances, etc.)	
No video games	No walking the dog	No movies at the local theater	

\*If light bothers you, **use sunglasses** whenever you are outside or if your surroundings are very brightly lit.

\*Keep telephone conversations brief (2-3 minutes) with no more than a few per hour.

Do not be concerned if you are having trouble focusing or concentrating, having difficulty remembering words in conversation, not remembering where you put things, or feeling foggy or slowed down (your brain seems to act like a computer with a virus infection). These symptoms will resolve when you get better. If you overdo activities, the dull and achy headaches will usually increase or worsen. If you don't stop the activity, you will become dizzy and nauseous. **DO NOT ALLOW THAT TO HAPPEN**. The goal is to prevent your symptoms from worsening.

Initially, sleep in a dark room as much as possible for the first 2-3 days. Then, if you like, you may listen to recorded books for **no more than 15 minutes at a time** (use a timer). The next day, you may watch TV for no more than 15 minutes at a time. **YOU MAY DO THIS AS LONG AS THESE ACTIVITIES DO NOT INCREASE YOUR SYMPTOMS** and gradually increase the amount of time you spend doing these activities. After the first few days, afternoon naps should be kept to no more than 15 minutes in order to not cause any sleep problems.

**Concussion return-to-learn program:** When you are headache free, you may alternate reading with using the computer in gradually increasing increments. For example, start with reading 2 pages, take a 10 minute break and try reading another 2 pages. Then try using the computer (**NO VIDEOGAMES**) for 10 minutes with 10 minute breaks between sessions. If you have no symptoms with these activities for at least one hour, you may attempt to return to school the following day. Try one class and continue to attend classes as long as you remain asymptomatic. (Initially, you may need to avoid math, foreign language, or chemistry classes since these subjects are more likely to cause the headache to return.) If you begin to have symptoms, go to the nurse's office and lie down. Skip the next period and try attending the following class. If you continue to experience symptoms in class, you should go home. You may gradually increase the amount of time spent in school, reading, or using the computer if you continue to remain asymptomatic.

**Concussion return-to-play exercise program:** When you are **cleared by your physician and remain symptom free (on no medications)** for at least one full day during school, you may begin the concussion return-to play exercise program described below. If symptoms develop during any activity, stop the activity. Retry the same activity again the following day.

Day 1: No exertional activity until medically cleared and asymptomatic at school for 24 hours

Day 2: Begin low-impact activity such as walking, stationary bike, etc.

Day 3: Initiate aerobic activity fundamental to specific sport such as skating, running, etc.

Day 4: Begin non-contact skill drills specific to sport such as dribbling, ground balls, batting, etc.

Day 5: Full contact in the practice setting

Day 6: Cleared for full activity with no restrictions if there are no symptoms during days 2-5

**\*Be careful with sprinting – doing full sprints too early may cause all your symptoms to return**

**NO SPINNING CARNIVAL RIDES FOR A FEW MONTHS**

**Omega 3 (Fish Oil) 3000 units per day is recommended**