



CONCUSSION IN YOUTH SPORTS: A FACT SHEET FOR PARENTS

FACTS:

- A concussion is a traumatic brain injury (TBI)
- Bell-ringers and dings are concussions
- All concussions are serious
- Concussions can occur without loss of consciousness
- Concussions can occur without memory loss
- Recognition and proper management of concussions when they first occur can prevent further injury or even death
- Most athletes can safely return to play after recovery
- Everyone recovers at their own rate
- In general, the younger the athlete is, the longer the recovery
- Both cognitive and physical rest are the key to recovery
- U.S. annual rate of sports/recreation related concussions: 3.8 million

A concussion is caused by a bump or blow (usually to the head) that is hard enough to disrupt the metabolic functioning of the brain. A fall or collision with another player can cause a concussion.

It is important for athletes to report concussions because the cumulative effects of repeated concussions can result in permanent intellectual and cognitive changes.

We also know that youth appear to be more vulnerable to the effects of concussion, and that the amount of time needed to recover from concussion varies across individuals and is related to a number of factors, including age.

It is also known that rest is the best treatment after a concussion and helps the brain heal faster. If the athlete is still symptomatic, forcing him or her to exert either physically or mentally will likely lengthen the recovery period. This means abstaining from sports — including recess and PE — as well as any other activities that require sustained mental exertion, from test-taking to playing video games. Once an athlete is 100% symptom free at rest, a gradual return-to-play protocol is implemented to be sure that symptoms do not resurface with exertion. No athlete should ever return to play if concussion symptoms recur.

Management of concussion in youth is very important to prevent a rare but often fatal brain injury called Second Impact Syndrome. This syndrome may occur when an athlete suffers a mild concussion and then, within a short period of time, receives a second blow to the head before he or she has fully recovered. Rapid brain swelling can occur as the brain has not yet healed from the first hit. Increased intracranial pressure, if uncontrolled, can lead to death or severe neurological damage.

RECOGNIZING A CONCUSSION

To recognize a possible concussion, parents should watch for:

- Any change in their child's behavior, thinking and/or physical functioning
- Associated with a collision, fall or forceful movement of the head

SIGNS AND SYMPTOMS

Signs Observed by Families:

- Appears dazed or stunned
- Is confused following instructions
- More irritable or emotional than usual
- Sleeping more than usual
- Moves clumsily
- Answers questions slowly
- Trouble reading or completing homework
- Shows behavior or personality changes
- Can't recall events before or after the hit or fall
- Complains that noises, lights or sunlight are irritating

Symptoms Reported by Athletes:

- Headache or pressure in head
- Nausea or vomiting
- Double or blurry vision
- Sensitive to lights or noises
- Dizziness, clumsiness, sleepiness
- Feels sluggish, hazy, foggy, groggy
- Attention or concentration problems
- Memory loss
- Confusion
- Just doesn't feel right

WHAT SHOULD YOU DO WHEN A CONCUSSION IS SUSPECTED?

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

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

OK	NOT NECESSARY	NOT OK
<ul style="list-style-type: none"> • Use Tylenol for headaches • Use ice packs as needed for comfort • Eat a light diet • Go to sleep • Rest (no strenuous activity or sports) 	<ul style="list-style-type: none"> • Check eyes with a flashlight • Wake up every hour • Test reflexes • Stay in bed 	<ul style="list-style-type: none"> • Drink alcohol or drive while symptomatic • Exercise or lift weights • Take ibuprofen (Advil, Motrin), aspirin, naproxen or non-steroid anti-inflammatory medications until told it's okay by a physician

- **Following a concussion, rest is the key.** The child/adolescent should not participate in any high risk activities (e.g., sports, PE, recess, riding a bike or other physical activities that increase normal heart rate.) Limit activities that require a lot of lengthy mental activity or concentration (such as homework, schoolwork, job-related activities, extended video game playing), as this can make the symptoms worse. Get good sleep; no late nights or sleepovers. Take naps if tired or drowsy.
- **Ensure that your child is evaluated right away by an appropriate healthcare professional.** Do not try to judge the severity of the injury yourself. The experts at the Concussion Institute at GMC-Duluth have a number of methods that they can use to assess the severity of concussions and to develop an appropriate care plan. They will work with a student's teachers, coaches, athletic trainer and other providers as needed to return your child to the classroom and playing field as quickly and as safely as possible.
- **Inform the school team—teachers, administrators, counselors, etc.—about your child's injury and symptoms.** Students who experience concussion symptoms often need extra help to perform school-related activities and may not perform at their best on tests. Rest breaks during the school day can also be helpful. As symptoms decrease during recovery, the extra help or supports can be removed slowly. Concussion Institute staff will work with your child's school to manage the workload and schedule as your child recovers.
- **Be patient!** It is normal for a child or adolescent to feel frustrated, sad and even angry because they cannot return to sports and/or recreation right away. With any injury, a full recovery will lower the chances of getting hurt again. It is better to miss one or two games than the whole season. Careful post-injury management will ensure the quickest and safest return to sports, and to the classroom.
- **Allow your child to return to play only with permission from a healthcare professional with experience in evaluating concussions.** Recovery times vary across individuals, so you should be wary when permission is based on the amount of time spent "resting," rather than measures of current symptoms and neurocognitive status. A repeat concussion that occurs before the brain recovers from the first can slow recovery or increase the likelihood of having long-term problems. Prevent common long-term problems and the rare Second Impact Syndrome by seeking appropriate medical evaluation and approval for return to play.
- Once cleared—when 100% symptom free—**be sure that your child follows a gradual return-to-play protocol** under the supervision of a healthcare provider or certified athletic trainer with expertise in concussion management.

For more information, visit gwinnettsportsmed.com/concussion or cdc.gov/injury.

ABOUT THE PHYSICIAN:

Dr. Shapiro is a licensed psychologist and Credentialed ImPACT Consultant, and a member of the GMC-Duluth Concussion Institute team.

She is a founding member of the Sports Neuropsychology Society and an RRCA certified running coach. She and the Concussion Institute team work with an athlete's primary care physician, allied healthcare professionals, school and coaches as needed in order to evaluate the effects of a concussion, develop a comprehensive concussion management plan and determine when it is safe for the athlete to return to sports.

Dr. Shapiro and the Concussion Institute team are available to work with schools, teams and leagues to provide concussion education to coaches, parents and athletes, and to implement baseline testing programs.



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