



# Understanding Your Child's Condition

## *facts about concussion*

### What Is a Concussion?

A concussion is a mild traumatic brain injury (mTBI) caused by a blow or jolt to the head or body that causes the brain to shake. The shaking can cause the brain to not work normally and can result in serious side effects. Concussions can occur even when a child does not lose consciousness. In fact, only 10 percent of children with concussions report being “knocked out.”

Some of the symptoms of a concussion can appear immediately after the injury, while others may not show up for several days. Symptoms may last days, weeks or months. Sometimes symptoms may be subtle and not obvious.

### How Is a Concussion Diagnosed?

Your child's doctor will ask a lot of questions to understand how the injury happened and what symptoms your child is experiencing. Your child may be asked to take a computerized test to better understand how his brain is functioning; however, there is not a single test that can diagnose a concussion. (You cannot see a concussion on brain imaging, like a CT scan or an MRI, because brain imaging looks at the structure of the brain, and a concussion affects the function of the brain — not its structure.) Doctors will use all of the information they have gathered to diagnose and manage your child's concussion.

### What Types of Symptoms Will My Child Have from a Concussion?

The symptoms of a concussion are related to how well the brain cells are functioning and working together. The most common symptoms are listed in the table below.

<b>Physical</b> <ul style="list-style-type: none"> <li>■ Headache</li> <li>■ Nausea and vomiting</li> <li>■ Balance problems</li> <li>■ Slowed reaction time</li> <li>■ Dizziness</li> <li>■ Sensitivity to light</li> <li>■ Sensitivity to sound</li> <li>■ Fuzzy or blurry vision</li> </ul>	<b>Thinking/Remembering (Cognitive)</b> <ul style="list-style-type: none"> <li>■ Difficulty concentrating</li> <li>■ Difficulty remembering</li> <li>■ Confusion</li> <li>■ Feeling “mentally foggy”</li> <li>■ Feeling slowed down</li> </ul>
<b>Sleep</b> <ul style="list-style-type: none"> <li>■ Sleeping more or less than usual</li> <li>■ Trouble falling asleep</li> <li>■ Feeling fatigued or drowsy</li> </ul>	<b>Mood Disruption</b> <ul style="list-style-type: none"> <li>■ More emotional</li> <li>■ Irritable</li> <li>■ Sad</li> <li>■ Nervous</li> <li>■ Depressed</li> </ul>

Often, symptoms will worsen over a matter of days, and it is common for new symptoms to appear in the days following the injury. Symptoms may also worsen when the brain is stressed, for example, when a child is doing schoolwork or participating in a physical activity.

#### Pre-existing Conditions

For children with pre-existing conditions, such as migraine headaches, learning disabilities, attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), and emotional and mental health conditions, concussion symptoms may be more severe or prolonged. It is important to know that a concussion may also worsen these underlying conditions and make them more difficult to control.

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### Call 911 If Your Child Has Any of the Following Symptoms:

- Seizures (twitching or jerking movement of parts of the body; may look stiff)
- Weakness or tingling in the arms or legs
- Cannot recognize people or places
- Confused, restless or agitated
- Impaired consciousness
- Difficult to arouse or unable to awaken
- Repeated vomiting
- Slurred speech
- Bloody or clear fluid from the nose or ears

### Additional Resources

#### After The Injury

[www.AfterTheInjury.org](http://www.AfterTheInjury.org)

This website is dedicated to helping you understand your child's reactions to injury and learn what you can do to help her respond in a healthy way.

#### Brain Injury Association of Pennsylvania

[www.biapa.org](http://www.biapa.org)

800-444-6443

#### Brain Injury Alliance of New Jersey

[www.bianj.org](http://www.bianj.org)

800-669-4323

#### Brain Injury Association of Delaware

[www.biade.com](http://www.biade.com)

800-411-0505

#### BrainSTEPS: Brain Injury School Re-Entry Program

[www.brainsteps.net](http://www.brainsteps.net)

724-944-6542

#### The Centers for Disease Control and Prevention – Concussion and Mild Traumatic Brain Injury

[www.cdc.gov/concussion](http://www.cdc.gov/concussion)

### How Do I Treat My Child's Concussion?

Your child should see a healthcare professional if you think she has a concussion. It is important to watch your child closely, pay attention to her specific symptoms, and contact your physician with any concerns.

Initial treatment for a concussion is REST, both mental and physical. This allows the brain to heal.

If your child has a concussion, she should not participate in activities that will exert her brain or body. Such activities may include:

- Activities that could cause another head injury (such as sports, gym class, riding a bike, etc.)
- Other physical activities that cause an increase in your child's heart rate and make her symptoms worse (such as any activity that causes her to break a sweat, lifting heavy items, etc.)
- Activities that require a lot of concentration (for example, attending school, doing homework, playing video games, texting, etc.)

With guidance from your doctor, your child can slowly return to mental and physical activity as she begins to feel better.

**If you have questions about your child's injury, please call your child's primary care doctor, who can discuss symptoms and help you create a plan. If you have further questions after seeing your child's primary care doctor, please call CHOP's Trauma Center at 215-590-5932 or the Center for Sports Medicine and Performance at 215-590-1527.**