# 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 move abruptly. The movement causes the neurons in the brain to stretch and to temporarily not work normally. 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 be noticed for a day or two. Symptoms may last days, weeks or months. Sometimes symptoms may not be obvious.

#### HOW IS A CONCUSSION DIAGNOSED?

Your child's healthcare provider will ask a lot of questions to understand how the injury occurred and what new symptoms your child is experiencing as a result of the injury. Your child will be evaluated by a physical exam, and a healthcare provider will ask questions about the injury itself. Imaging, such as a CT scan or MRI, is generally not useful in diagnosing concussions because these tests do not show the way the brain's function is affected by the injury.

#### WHAT TYPES OF SYMPTOMS COULD MY CHILD HAVE FROM A CONCUSSION?

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

Often, symptoms will worsen in the first few days following the injury. Symptoms may also worsen when the brain is doing more work. This may occur with schoolwork, looking at a computer for long periods of time or participating in physical activity.

### PRE-EXISTING CONDITIONS AND CONCUSSION SYMPTOMS

For children with certain pre-existing conditions, concussion symptoms may sometimes be more severe or prolonged. These conditions include: migraine headaches, learning disabilities, attention deficit disorder/attention deficit hyperactivity disorder (ADD/ADHD), visual disorders, and emotional and mental health conditions. A concussion may temporarily make these conditions more challenging to control.

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PHYSICAL	Headache	Nausea and vomiting	Slowed reaction time	Sensitivity to light	Sensitivity to sound
VISION/ BALANCE	Balance problems	Dizziness	Eye strain/symptoms with eye movement	Fuzzy or blurry vision	Motion sensitivity
THINKING/ REMEMBERING	Difficulty concentrating	Difficulty remembering	Confusion	Feeling "mentally foggy"	Feeling slowed down
SLEEP	Sleeping more than usual	Sleeping less than usual	Trouble falling asleep	Trouble staying asleep	Feeling fatigued or drowsy
MOOD DISRUPTIONS	More emotional	Irritable	Sad	Nervous/Anxious	Depressed

#### COMMON CONCUSSION SYMPTOMS



#### HOW DO I TREAT MY CHILD'S CONCUSSION?

Initial treatment for a concussion is REST both mental and physical. This gives the brain a chance to recover. Too much activity early in the recovery can provoke severe symptoms; however, resting for too long can also make it harder to return to activities.

If you suspect your child has a concussion, see a healthcare provider as soon as possible. It is important to closely monitor your child, pay attention to their specific symptoms and contact a healthcare provider with any concerns.

If your child has acute concussion symptoms, they should not participate in risky activities until evaluated by a healthcare provider.

#### Avoid:

• Activities that could cause another head injury (such as sports, gym class, riding a bike, etc.)

#### Based on symptoms, limit:

- Other physical activities that make their symptoms worse (i.e. running or lifting heavy items, etc.)
- Cognitive activities that require a lot of concentration (i.e. attending school, doing homework, playing video games, texting, social media, etc.)

With guidance from your child's healthcare provider, your child can slowly return to activities that require concentration and physical effort as they begin to feel better.

As parents, you should be on the lookout for signs that your child is in immediate danger as a result of their injury.

### 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

Brain Injury Association of Pennsylvania www.biapa.org • 800-444-6443

Brain Injury Alliance of New Jersey www.bianj.org • 732-783-6172

Brain Injury Association of Delaware www.biaofde.com • 800-411-0505

BrainSTEPS: Brain Injury School Re-Entry Program www.brainsteps.net • 724-944-6542

The U.S. Centers for Disease Control and Prevention – Concussion and Mild Traumatic Brain Injury www.cdc.gov/headsup

## For more information, visit chop.edu/concussion

