

#### WHAT IS A CONCUSSION?

A concussion is a type of traumatic brain injury—or TBI—caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth. This sudden movement can cause the brain to bounce around or twist in the skull, stretching and damaging the brain cells and creating chemical changes in the brain.

## **CONCUSSIONS ARE SERIOUS**

Medical providers may describe a concussion as a "mild" brain injury because concussions are usually not life-threatening. Even so, the effects of a concussion can be serious.



#### **CONCUSSION SIGNS AND SYMPTOMS**

Children and teens who show or report one or more of the signs and symptoms listed below, or simply say they just "don't feel right" after a bump, blow, or jolt to the head or body, may have a concussion or more serious brain injury.

## **CONCUSSION SIGNS OBSERVED**

- Can't recall events prior to or after a hit or fall.
- Appears dazed or stunned.
- Forgets an instruction, is confused about an assignment or position, or is unsure of the game, score, or opponent.
- · Moves clumsily.
- Answers questions slowly.
- Loses consciousness (even briefly).
- Shows mood, behavior, or personality changes.

# **CONCUSSION SYMPTOMS REPORTED**

- Headache or "pressure" in head.
- Nausea or vomiting.
- Balance problems or dizziness, or double or blurry vision.
- Bothered by light or noise.
- Feeling sluggish, hazy, foggy, or groggy.
- Confusion, or concentration or memory problems.
- Just not "feeling right," or "feeling down".

Signs and symptoms generally show up soon after the injury. However, you may not know how serious the injury is at first and some symptoms may not show up for hours or days. For example, in the first few minutes your child or teen might be a little confused or a bit dazed, but an hour later your child might not be able to remember how he or she got hurt.

You should continue to check for signs of concussion right after the injury and a few days after the injury. If your child or teen's concussion signs or symptoms get worse, you should take him or her to the emergency department right away.

#### **CONCUSSION DANGER SIGNS**

In rare cases, a dangerous collection of blood (hematoma) may form on the brain after a bump, blow, or jolt to the head or body that may squeeze the brain against the skull. Call 9-1-1 right away, or take your child or teen to the emergency department if he or she has one or more of the following danger signs after a bump, blow, or jolt to the head or body:

# **DANGEROUS SIGNS & SYMPTOMS OF A CONCUSSION**

- One pupil larger than the other.
- Drowsiness or inability to wake up.
- A headache that gets worse and does not go away.
- Slurred speech, weakness, numbness, or decreased coordination.
- Repeated vomiting or nausea, convulsions or seizures (shaking or twitching).
- Unusual behavior, increased confusion, restlessness, or agitation.
- Loss of consciousness (passed out/knocked out). Even a brief loss of consciousness should be taken seriously.

# DANGEROUS SIGNS & SYMPTOMS OF A CONCUSSION FOR TODDLERS AND INFANTS

- Any of the signs and symptoms listed in the Danger Signs & Symptoms of a Concussion list.
- Will not stop crying and cannot be consoled.
- Will not nurse or eat.

#### RECOVERY FROM CONCUSSION

Rest is very important after a concussion because it helps the brain heal. Your child or teen may need to limit activities while he or she is recovering from a concussion. Physical activities or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may

cause concussion symptoms (such as headache or tiredness) to come back or get worse. After a concussion, physical and cognitive activities—such as concentration and learning—should be carefully watched by a medical provider. As the days go by, your child or teen can expect to slowly feel better.

# **RECOVERY TIPS**

Parents can help their child or teen feel better by being active in their recovery:

### **REST IS KEY TO HELP THE BRAIN HEAL**

- Have your child or teen get plenty of rest. Keep a regular sleep routine, including no late nights and no sleepovers.
- Make sure your child or teen avoids high-risk/high-speed activities that could result in another bump, blow, or jolt to the head or body, such as riding a bicycle, playing sports, climbing playground equipment, and riding roller coasters. Children and teens should not return to these types of activities until their medical provider says they are well enough.
- Share information about concussion with siblings, teachers, counselors, babysitters, coaches, and others who spend time with your child or teen. This can help them understand what has happened and how to help.

### **RETURN SLOWLY TO ACTIVITIES**

- When your child's or teen's medical provider says they are well enough, make sure they return to their normal activities slowly, not all at once.
- Talk with their medical provider about when your child or teen should return to school and
  other activities and how you can help him or her deal with any challenges during their recovery.
   For example, your child may need to spend less time at school, rest often, or be given more time
  to take tests.
- Ask your child's or teen's medical provider when he or she can safely drive a car or ride a bike.

## TALK TO A MEDICAL PROVIDER ABOUT CONCERNS

- Give your child or teen only medications that are approved by their medical provider.
- If your child or teen already had a medical condition at the time of their concussion (such as ADHD or chronic headaches), it may take longer for them to recover from a concussion. Anxiety and depression may also make it harder to adjust to the symptoms of a concussion.

## POST-CONCUSSIVE SYNDROME

While most children and teens with a concussion feel better within a couple of weeks, some will have symptoms for months or longer. Talk with your children's or teens' health care provider if their concussion symptoms do not go away or if they get worse after they return to their regular activities.

If your child or teen has concussion symptoms that last weeks to months after the injury, their medical provider may talk to you about post-concussive syndrome. While rare after only one concussion, post-concussive syndrome is believed to occur most commonly in patients with a history of multiple concussions.

There are many people who can help you and your family as your child or teen recovers. You do not have to do it alone. Keep talking with your medical provider, family members, and loved ones about how your child or teen is feeling. If you do not think he or she is getting better, tell your medical provider.