

# What You Should Know About Concussions

What if it's more than just a bump on the head.

By Rocky Mountain Hospital for Children

**S**ometimes what might appear to be a simple bump on the head is more serious than it may seem. A blow, bump, jostle or jolt to the head or neck can cause a concussion, which is a traumatic brain injury. Concussions can lead to serious physical and emotional repercussions, permanently changing the way that your child's brain works, and in severe cases can result in death. The more we learn about concussions, the more we realize they must be treated as the serious injuries they truly are.

Recently, NFL litigation regarding concussions and some major head injuries sustained during the winter Olympics have placed more attention on the issue than ever. But these serious injuries don't only occur in world-class athletes. Your child can suffer a concussion on the soccer field, at the playground or even at home. In fact, young athletes between the ages of 11 and 18 are particularly susceptible to such head injuries.

While efforts to prevent concussions through better equipment, rule changes and coaching practices continue to evolve, concussions continue to be a significant health problem. It is a vehicle accident. Sometimes, the accident may occur while the child is unsupervised and may initially go unnoticed by adults. As a result, it is even more important that parents are able to identify the onset of concussion symptoms.

"Parents of children that are not involved in sports may not learn about the symptoms of concussion," says Sue Kirelik, M.D., medical director of the Rocky Mountain Hospital for Children Center for Concussion and a pediatric emergency physician. "A concussion, regardless of how it was inflicted, does require medical attention. If you ever suspect a concussion, it is important to contact your medical provider. You should take your child to the nearest emergency room if they show symptoms of a more severe injury, such as vomiting, severe headache, change in level of alertness, very confused and disoriented or have severe neck pain."

Babies and toddlers are often unable to express symptoms, so concussion can be more difficult for a parent to detect. In these cases, watch for fussiness, behavior changes, changes in appetite or sleep patterns. Kirelik recommends that you take your child to the doctor and explain the situation if you suspect anything abnormal.

## HEALING FROM CONCUSSION

After a child or teen has been diagnosed with a concussion, it is important that they receive

estimated that 90 percent of pediatric patients with a concussion go undiagnosed. Many do not seek medical care because of a lack of understanding that a concussion is a serious brain injury, which requires medical treatment in all cases. Knowing the symptoms of a concussion and quickly seeking appropriate treatment are the best ways to prevent permanent damage.

## SPOTTING A CONCUSSION

There are specific signs and symptoms that can tip off parents, teachers and coaches to a child's head injury.

Often, the first sign of a concussion is not a lump on your child's head. Rather, immediately following an incident, the child may appear dazed or stunned, confused, unsteady on his feet and may have trouble remembering things.

Brooke Pengel, MD, medical director for the Rocky Mountain Youth Sports Medicine Institute, a program of the Rocky Mountain Hospital for Children, has spoken to coaches, parents and athletes around the United States about how to better spot and communicate concussion signs and symptoms.

proper treatment and the healing process is effectively managed to prevent long-term effects.

Karen McAvoy, Psy.D., director of the Center for Concussion at the Rocky Mountain Youth Sports Medicine Institute, developed the REAP concussion management program, a community-based communication plan for families, schools and medical professionals.

REAP stands for:

**R** – Remove/Reduce Physical and cognitive, or mental demands

**E** – Educate children, families, educators, coaches and medical professionals on all potential symptoms

**A** – Adjust/Accommodate for the child academically and with home stimulation

**P** – Pace the child back to learning, activity and play.

"It's important to remember that 'remove/reduce' doesn't only apply to physical activity, but mental activity as well. When a child is reading or even just watching television, the brain is working, and an injured brain needs rest," says McAvoy. "The school plays a vital role in concussion management. Even when a child is able to return to school after a concussion, they will need to start slow, take more frequent breaks and refrain from taking tests until they demonstrate improved cellular functioning. This requires open and frequent

"Concussion symptoms can vary from child to child," says Pengel. "It is vital that parents, coaches and teachers are vigilant in watching for any abnormal behavior. Many times, the child will continue to play, unaware of the seriousness of their injury, so adults responsible for them will need to take action."

In Colorado, Pengel was involved in the legislative process surrounding The Jake Snakenberg Youth Concussion Act. This act requires annual head injury training for youth sports coaches, and mandates that an athlete must be pulled from a game or practice if a coach suspects a concussion. Additionally, any child with a suspected concussion cannot return to play – on the day of the incident or future practices or games – until written clearance is given from a healthcare provider.

## NON-SPORTS CONCUSSIONS

Although most concussions in kids occur in sports, it's important for parents to remember that concussions don't always happen on the athletic field. They can occur at school, on the playground, falling from a bike or in a motor communication between the parent, medical provider and school."

The REAP program has been adapted by youth sports programs throughout the United States, and McAvoy has been active in passing youth concussion legislation locally.

Recently, the American Academy of Pediatrics released a clinical report reinforcing the recommendations in McAvoy's REAP program and suggesting that children diagnosed with concussions should return to school slowly, with support from the school, in order to help the child fully heal.

When it comes to head injuries, it is better to play it safe. Eighty to 90 percent of concussions will heal well if treated properly, so communication and observation is key. Be aware of your child's physical, cognitive and emotional state. Always voice safety concerns with teachers, coaches and medical professionals who interact with your child. And communicate with medical professionals and school officials if you suspect your child may have sustained a brain injury.

For more information, visit [rockymountainhospitalforchildren.com](http://rockymountainhospitalforchildren.com). Visit [ColoradoParent.com](http://ColoradoParent.com) for a full list of concussion signs and symptoms.