



# CONCUSSION Care

## *About concussions*

A concussion is a traumatic brain injury. It is one of the most dangerous sport-related injuries children and adolescents can suffer. Many people believe that a concussion occurs only with a direct hit to the head or when an athlete loses consciousness (“passes out”). This is not the case. While an athlete who loses consciousness after a blow to the head will almost certainly have a concussion, most players with concussions do not pass out.

It is extremely important that a player who shows any signs of a concussion be removed from play immediately and evaluated by a physician experienced in treating concussions before returning to play, even if the athlete insists he or she is feeling fine. Young athletes are taught to be tough, but this is not a time to let them “shake it off.”

A young athlete’s developing brain is at risk for long term problems if not treated appropriately.

A second blow to the head before the first one has healed could result in permanent, catastrophic brain injury – even death.

### *Symptoms of concussions:*

- headache
- confusion
- memory loss (asking questions like “what happened?”)
- appearing stunned or “in a fog”
- difficulty concentrating (especially in school)
- nausea
- double vision
- dizziness
- sleep disturbance

## *Sports medicine care at CHKD*

CHKD’s sports medicine program offers care for all medical issues that affect children’s participation in sports, from orthopedic injuries to asthma and concussions. Our medical director, Joel Brenner, MD, provides our concussion care. A nationally-recognized expert in pediatric sports medicine, he is the only provider in the state who is board-certified in sports medicine – as well as adolescent medicine and pediatrics.

Because we are a part of Children’s Hospital of The King’s Daughters, we can provide quick access to neurologists, neurosurgeons, neuropsychologists and MRI and CT studies.

### *Locations*

#### *Norfolk*

Children’s Hospital of The King’s Daughters  
601 Children’s Lane

#### *and*

CHKD Health Center at Kempsville  
171 Kempsville Road, Building A

#### *Chesapeake*

CHKD Health Center at Oakbrooke  
500 Discovery Drive

#### *Newport News*

CHKD Health and Surgery Center at Oyster Point  
11783 Rock Landing Drive  
(orthopedic surgery and sports medicine PT only)

#### *Virginia Beach*

CHKD Health and Surgery Center at Princess Anne  
2021 Concert Drive



**Children’s Hospital  
of The King’s Daughters**

**Sports Medicine**

*Training and Treatment for Young Athletes*

**668-PLAY (7529)**



### *Our patients*

Some athletes come to us for follow-up care after they have been diagnosed with a concussion by a family doctor or emergency provider. Others come for diagnosis as well as treatment. We take care of recreation league, middle school, high school and college athletes and participants of all sports.

Athletes who have had previous concussions or who are still having symptoms from an earlier incident are of special concern to us, but every concussion is a serious brain injury, even when the symptoms it causes are mild.



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### *Evaluating concussions*

Concussions can be severe or mild, and recovery time varies from athlete to athlete. We evaluate patients with the following:

- Symptom inventory
- Physical examination
- Balance testing
- Neuropsychological testing

One of the tools we use to determine the severity of a concussion and how an athlete is recovering is ImPACT, a state-of-the-art, non-invasive, computerized analysis of a person's neurocognitive functioning (reaction time, attention span, memory, problem-solving, etc.). ImPACT is widely used by professional sports organizations and college programs. It measures reaction time to one-hundredth of a second, helping us make return-to-play decisions with extreme care, based on each athlete's particular symptoms.

#### **ImPACT Baseline Testing**

CHKD's sports medicine program also offers baseline ImPACT testing, an assessment of an athlete's normal neurocognitive functioning prior to a head injury. Having this record on file prior to a concussion makes our post-injury assessments even more precise. To find out more, please call 668-PLAY.

### *Components of treatment*

- Quick, accurate comprehensive evaluation and diagnosis
- Individual return-to-play treatment program
- Assistance with academic adjustments
- Medication management (if needed)

### *Other services*

CHKD's sports medicine program offers comprehensive care: from initial diagnosis, to treatment, to sports medicine physical therapy. We also offer injury prevention programs and education on concussions and other sports medicine topics for coaches, parents, athletes and health care professionals. Find out more about the region's only sports medicine program for young athletes at [www.chkd.org/sportsmedicine](http://www.chkd.org/sportsmedicine). If you are interested in



having one of our sports medicine staff members talk with your group, please call our community outreach manager at 757-668-7402.

### *Making an appointment*

Patient appointments with Dr. Brenner are available within 24-48 hours at one of our sports medicine clinics at our hospital in Norfolk and our Health Center locations at Princess Anne, Kempsville and Oakbrooke.

For more information or to make a referral for a concussion or any other sports medicine problem with Dr. Brenner or one of our orthopedic surgeons, please call 668-PLAY.