

## HEALTH

PART TWO OF A TWO-PART SERIES

**SPORT CONCUSSIONS:** *Treatment and Second Impact Syndrome*

Keri A. Stokes

By Keri A. Stokes, MS, LAT, ATC, LMT

In the previous issue, PART ONE of this series defined a concussion as “a brain injury...caused by a bump, blow or jolt to the head... that can range from mild to severe and disrupt the way the brain normally works.” The article also described common symptoms associated with a concussion injury. PART TWO repeats those symptoms and discusses the treatment of suspected concussion injuries and why prompt and proper treatment are so important.

**SYMPTOMS OF CONCUSSIONS:**

- Headache
- Blurred vision
- Ringing in the ears
- Nausea, vomiting
- Sensitivity to light
- Tenderness or neck pain
- Numbness or weakness
- Funny taste in the mouth
- Confusion, feeling “foggy”
- Amnesia/memory problems
- Attention/concentration issues
- Balance or coordination problems
- Irritability/emotionality
- Drowsiness or changes in sleep patterns
- Loss of consciousness\*

(\*usually results in a referral to the emergency room)

**WHAT TO DO:**

There is much debate going on surrounding concussions but one of the few things that remains consistent across the board is that once an athlete suffers a head injury they are absolutely, positively, without a doubt done with sports for that day and the immediate 24-hour period following. As athletic trainers we make no exceptions to this and as parents neither should you. The next best thing you can do for your child is monitor them and schedule a follow up with a physician (preferably a sports medicine doctor) to determine when it may be safe for them to return to activities. At the high school level, athletes are required to be evaluated and released by a physician before they are eligible for return to play which includes practices. Consult your medical doctor on whether or not it is safe to give your child a low dose of NSAIDs to keep them comfortable; sometimes NSAIDs can mask your child's symptoms making it harder for you to monitor their progress and/or decline. Observe them while they sleep the night of the injury as well as the following morning. Encourage your kids to eat healthy and get as much prescribed rest both physically and cognitively as possible; this may mean no practice, limited school work, no technology like computers, phones, Ipods, movies, etc. If something really does not seem right to you or your child's condition seems to suddenly take a turn for the worse, get them to the nearest emergency room immediately. It is always better to be safe than sorry. In 80-90% of cases, the athlete gradually recovers from a concussion 5-7 days post-injury through conservative treatment.

**SECOND-IMPACT SYNDROME:**

NEVER allow your child to return to play if they have any symptoms. This includes displaying symptoms at rest as well as during or after physical activity. It is typical to keep an athlete out for an additional seven days once they become asymptomatic. This might seem extreme but here's why. Second-impact syndrome (SIS) is a condition that primarily affects young kids and teenagers whose brains are still maturing. SIS occurs when an athlete sustains a second head injury (even a seemingly minor one) before symptoms from the first injury have resolved. SIS does not cause a brain bleed but causes rapid swelling and herniation of the brain that occurs within 2-5 minutes of the second head injury and at this point it is too late to help the child. Second-impact syndrome is ALWAYS catastrophic – 100% permanent morbidity and 50% mortality. The only way to prevent SIS is to utilize all the tools available to you when the first head injury occurs, when in doubt sit your children out and never, ever allow them to return to play when they are still symptomatic.

**TAKE HOME MESSAGE:**

When your child was born you took a solemn vow as a parent to protect them to the best of your ability and go up to bat for them whenever necessary; this is your chance. You can save not only their sports career but their life as well. You should never be faulted by a coach or anyone else for exercising caution when it comes to your child's health and well-being. Be very conservative with children and adolescents when it comes to head injuries because their life may very well depend on it. They may get mad at you because they are frustrated and want to play but remind them it's much easier to miss a few games than a whole season or even worse, a lifetime.

*Keri A. Stokes is a Sport & Exercise Psychology Consultant, a Certified Athletic Trainer, and a Licensed Massage Therapist at The Sports Medicine and Orthopaedics Center in Greensboro. If you have questions, concerns or comments regarding concussions or head injuries, please feel free to email the author at k.stokes@sosbonedocs.com. More educational information on traumatic brain injuries and the “Heads Up” program is available from the CDC website: <http://www.cdc.gov/traumaticbraininjury/>.*

**SM&OC**  
The Sports Medicine and Orthopaedics Center

Mortenson • Rendall • Whitfield • Caffrey • Lucey  
Hewitt • Voytek • Bassett • Deveshwar

Providing  
**SPECIALIZED**  
Orthopaedic  
Care

Surgical & Non-Surgical  
Orthopaedics

Primary Care Sports Medicine

Physical Medicine and  
Rehabilitation

Physical Therapy/Sports  
Rehabilitation

Sports & Exercise Psychology  
Consults

With Offices In

Greensboro	275-6318
High Point	887-8400
Randleman	799-4433
Eden	627-7500

**ANNOUNCING:****Dr. John Hewitt**

will be joining the staff of SM&OC in August.  
Dr. Hewitt can provide you with all of your orthopaedic care needs including **SPECIALIZED** foot and ankle care.

**Greensboro**

 AFTER HOURS ORTHOPAEDIC  
WALK-IN URGENT CARE

**336 275-6318**  
201 East Wendover Avenue  
[www.smoonline.com](http://www.smoonline.com)

SM&amp;OC is a Division of Southeastern Orthopaedic Specialists

**336 235-BONE**