



SPORTS CONCUSSION PROGRAM



1-888-721-BUMP (2867)

THE TRAGEDY OF A CONCUSSION

Meet Nathan Stiles. He was a high school senior. He was a varsity athlete in football and basketball. He was a 4.0 student. He was a singer. He was homecoming king in 2010. He died 4 days before his 18th birthday. On October 1st, Nathan Stiles received a concussion during the homecoming football game. The next day he complained of headaches, which continued until practice 4 days later. His football coach pulled him from practice and he was sent to the ER with a suspected concussion. The doctor required Nathan to sit out one week from sports in order to recover.

After one week of rest, the Stiles family doctor suggested that Nathan sit out one more week even with the absence of the headaches. However, he left the decision to return to play up to Nathan and his mother.

“Mom I feel fine and I need to do this for my buddies.” - Nathan Stiles

Nathan played in the following football game on October 22nd and seemed normal with no symptoms of a concussion. Six days later, he played the best game of his life, scoring two touchdowns and running 165 yards in the first half. Two minutes before half time, Nathan began walking funny during the game. Once on the sidelines, he began screaming, “My head!” A paramedic and physician in the crowd assisted Nathan, but he was eventually airlifted to the University of Kansas Medical Center. At 4 a.m. October 29, 2010, he passed away 4 days before his 18th birthday.

No one knew it at the time, but Nathan’s brain was bleeding and deprived of oxygen. A few weeks after Nathan’s death, the Sports Legacy Institute, a Boston-based research group, contacted his family. They wanted to study Nathan’s brain in an effort to understand and prevent brain injuries in young athletes. The Stiles agreed and after some analysis, they suspected Nathan was a victim of Second Impact Syndrome. Second Impact Syndrome is a second concussion before the brain is able to recover from the first. It is a serious condition, which can result in brain swelling, permanent brain damage, and possible death.



RESPONSIBILITY & MISSION

The Responsibility of Athletes, Coaches, and Parents

When young athletes express an interest in playing a particular sport, parents and coaches provide encouragement and instruction. Although the athlete should have fun learning the sport and achieving a high level of performance, the primary goal should be the safety of the athlete.

With regards to concussion, safety begins with understanding the rules of the game and wearing the appropriate equipment. It also means understanding how concussions develop, how to recognize them, and how to get athletes the appropriate medical care. Part of preparing for every sports season should include not only getting in shape, but also understanding the important issues surrounding concussions. Participating in sports without this knowledge is detrimental to the health and safety of athletes.

The Mission of CGH Medical Center

As a regional leader in health care, CGH Medical Center has a long tradition of providing programs to the community that benefit its health and safety. Illinois State Law requires a health professional to evaluate and to provide consent to an athlete before returning to play after a concussion. It also requires schools to develop a Concussion Management Team and to provide specific guidelines on directing the decision about when to safely return an athlete to play. CGH Medical Center is committed to providing the highest quality care to local athletes. As part of that commitment, and to supplement the current Illinois law, the CGH Sports Concussion Program was developed to achieve three goals:

1. To educate athletes, parents, and coaches about preventing, diagnosing, and treating concussion.
2. To establish a communication network between the coaches, parents, and CGH Sports Concussion Clinic in order to facilitate the timely evaluation and care of athletes who sustain a concussion.
3. To provide comprehensive care to athletes with a concussion including specific guidelines for returning an athlete safely back to learning and play.



THE BASICS OF SPORTS CONCUSSIONS

What is a concussion?

A concussion is a brain injury that is caused by a forceful blow to the head or to the body. For example, an athlete may collide with another player or fall to the ground during a game. In either case, the brain may be injured by direct impact or by the head moving quickly back and forth. Repeated concussions can result in permanent brain damage and, in severe cases, death.

Second Impact Syndrome develops when an athlete suffers from a second concussion before recovery from the first one is complete. It is a serious condition that can result in brain swelling, permanent brain damage, and death.

What athletes are at risk for getting a concussion?

All athletes are at risk for concussions. However, high-risk sports include football, soccer, hockey, and basketball. The risk of a concussion is increased by not following the rules of the game, and by not wearing proper safety equipment, such as helmets in good condition and with appropriate padding. Having had a previous concussion increases your risk of getting another concussion and possible long-term effects like difficulty concentrating and depression.

The Centers for Disease Control and Prevention (CDC), estimates that as many as 3,900,000 sports-related and recreation-related concussions occur in the United States each year. This statistic most likely underestimates the true severity of the problem because many concussions are ignored, undiagnosed or unreported. Consequently, athletes do not receive appropriate medical care, which places them at higher risk for significant brain injury.

How do I know if an athlete has a concussion?

Communicate with the athlete and ask questions. Become familiar with the symptoms and signs of a concussion. Use them to assess athletes suspected of having a concussion. The following 5 questions can be used as a quick assessment of mental function. If an athlete misses an answer to any one of the questions, a concussion should be suspected, the athlete should be removed from play, and a doctor should be consulted to evaluate the athlete.

- 1.** What venue are we at today?
- 2.** Which half is it now?
- 3.** Who scored last in this game?
- 4.** What team did you play last game?
- 5.** Did your team win the last game?



THE BASICS OF SPORTS CONCUSSIONS *(Continued)*

What are the signs & symptoms of a concussion?

Thinking / Remembering	Physical	Emotional	Sleep
<ul style="list-style-type: none">• Difficulty thinking clearly	<ul style="list-style-type: none">• Headache• Fuzzy or blurry vision	<ul style="list-style-type: none">• Irritability	<ul style="list-style-type: none">• Sleeping more than usual
<ul style="list-style-type: none">• Feeling slowed down	<ul style="list-style-type: none">• Nausea or vomiting• Dizziness	<ul style="list-style-type: none">• Sadness	<ul style="list-style-type: none">• Sleeping less than usual
<ul style="list-style-type: none">• Difficulty concentrating	<ul style="list-style-type: none">• Sensitivity to light or noise• Balance problems	<ul style="list-style-type: none">• More emotional	<ul style="list-style-type: none">• Trouble falling asleep
<ul style="list-style-type: none">• Difficulty remembering new information	<ul style="list-style-type: none">• Feeling tired, having no energy	<ul style="list-style-type: none">• Nervousness or anxiety	

What steps should be taken if an athlete has a concussion?

First, the athlete should be removed from play. Second, the athlete should be assessed by a doctor. Third, contact CGH Sports Concussion Clinic for further assessment and treatment.

Youth Sports Concussion Safety Act

Public Act 099-0245 now requires the governing body of each school district and charter school with students enrolled who participate in an interscholastic athletic activity to appoint or approve a concussion oversight team. It is recommended that the concussion oversight team include at least one physician, (if the school employs) an athletic trainer, (if the school employs) a nurse, and may appoint any other licensed health care professional including a physical therapist, psychologist, or occupational therapist.

A student removed from athletic practice or competition with suspected concussion may not return to practice or competition until: **(1)** the student has been evaluated by a treating physician or athletic trainer, **(2)** the student has successfully completed a Return-to-Learn Protocol, **(3)** the student has successfully completed a Return-to-Play Protocol, **(4)** the treating physician or athletic trainer has provided a written release, and **(5)** the student's parent/guardian has signed the post-concussion consent form.

CGH SPORTS CONCUSSION PROGRAM

Education

At the beginning of the academic year, CGH health professionals will provide education material and offer seminars to educate athletes, parents, and coaches on preventing, diagnosing, and treating sports concussions.

Communication

Contact information for the CGH Sports Concussion Clinic will be distributed to all coaches, athletes, and parents to establish the communication network for injured athletes.

Ideally, every high school will have one representative who communicates directly with the CGH Sports Concussion Clinic about athletes at their school with concussions.

Medical Care

Each school's Concussion Management Team should organize administration of the Standardized Assessment for Concussion (SAC) test to athletes as part of their preseason training. This preseason SAC test is used to define the baseline or normal function of an athlete. If a concussion occurs during the season, subsequent SAC tests are administered and compared to the preseason test to monitor clinical progress and recovery. The test scores will be one component used during the process of deciding when an athlete can return to play.

Athletes removed from competition with a suspected concussion are referred to the CGH Sports Concussion Clinic for evaluation. The CGH Sports Concussion Clinic and a representative from the school's Concussion Management Team will work as a team to coordinate the appropriate medical care for the athlete at CGH Medical Center. The athlete will undergo additional tests to monitor recovery, to direct treatment plan, and to make a decision about when the athlete can safely return to learning and play.



COURSE OF MEDICAL CARE

1. Preseason Training

The baseline SAC test should be performed as part of preseason training.

2. During the season, if an athlete is suspected of having a concussion, follow these steps:

- Remove the athlete from competition
- Immediate assessment of the athlete by a health care professional
- Do not return the athlete to play until medical evaluation is complete

3. Refer the athlete to CGH Sports Concussion Clinic. A representative from the school's Concussion Management Team contacts the CGH Concussion Clinic to schedule an appointment for evaluation and treatment of the athlete.

4. The treatment program is defined at the CGH Sports Concussion Clinic and may include an evaluation by a doctor, cognitive/vestibular/coordination testing, imaging studies, physical therapy, and administration of the Return-to-Learn/Return-to-Play Protocols.

5. Return to Learn Progression

Phase 1. Complete physical and cognitive rest until medical clearance

Phase 2. Return to school with academic accommodations

Phase 3. Continue academic accommodations with transition back to normal school day

Phase 4. Full recovery to academic activity

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COURSE OF MEDICAL CARE *(Continued)*

6. Return to Play Criteria

1. Athlete experiences no symptoms of a concussion
2. Physical exam, including strength testing, is normal
3. No symptoms are able to be reproduced with vestibular, cognitive, concentration, memory, or balance testing
4. Successful completion of the 5 phases of physical activity

Phase 1: Begin light aerobic low impact exercise such as walking.

Phase 2: If no symptoms or signs of a concussion during Phase 1, begin sport-specific non-contact activity (e.g. strength training).

Phase 3: If no symptoms or signs of a concussion during Phase 2, begin non-contact training drills.

Phase 4: If no symptoms or signs of a concussion during Phase 3, return to full contact in practice.*

Phase 5: If no symptoms or signs of a concussion during Phase 4, return to competition.*

**Requires written consent from doctor or certified athletic trainer.*

If an athlete experiences any symptoms during any phase, the athlete must rest for 24 hours and then restart at the previous phase.

7. Once the athlete has been medically cleared, has completed Return-to-Learn and Return-to-Play protocols, and the athlete's parent/guardian has signed the post-concussion consent form, medical release for return to play will be provided to the school's Concussion Management Team.