



Coaching and Concussions

Your pivotal role in awareness, safety and education

“Concussions should not be minimized by calling them ‘dings’ or ‘getting your bell rung.’ They are mild traumatic brain injuries and should be taken seriously with proper evaluation and management.”

Daniel Grobman, DO, *Sports and Spine Health Specialist at Cleveland Clinic Florida*

The statistics tell the story. The Centers for Disease Control and Prevention (CDC) estimates 1 to 3 million sports-related concussions occur annually in the United States. As a coach, the safety of each team member rests on your shoulders. While safety is paramount in your mind, there is growing evidence that shows many coaches, athletes, parents and even health care providers have been slow to recognize how serious concussions are, leading to inadequate evaluation and treatment.

What is a Concussion?

A concussion is a brain injury commonly caused by a bump, blow or jolt to the head. A variety of symptoms may develop and typically resolve over time. An athlete can suffer a concussion in any sport. Contact or collision sports, such as football, soccer, wrestling, ice hockey, lacrosse and rugby, have the highest incidence of concussion. Most concussions appear without loss of consciousness. Rarely is there a structural injury noted on MRI or CT scan. Even when the physical, and sometimes emotional, symptoms of a concussion have disappeared, the brain may not be healed.

Athletes who suffer a concussion are three to five times more likely to suffer a second concussion in the same season. Sustaining a repeat concussion, while recovering from a concussion, is dangerous. This is called second impact syndrome and can potentially cause brain swelling and brain damage. Your athletes can avoid further injury by not playing with a concussion.

Identifying the Signs and Symptoms in Athletes

Symptoms of a concussion can occur immediately, or hours, days, even weeks after the initial “hit” or fall. Symptoms may be difficult to recognize, can vary over time, and typically worsen with physical and mental activity. Times have changed; a “ding” is considered a concussion.

If the athlete experiences any of the concussion symptoms, get him or her to a health care provider immediately.

Signs Observed by Coaches or Parents:

- A dazed or stunned appearance
- Confusion or clumsiness
- Slow responses to questions
- Personality or behavioral changes
- Loss of consciousness - even temporary
- Forgets plays or assignments
- Forgetting play prior to or after the “hit”

Symptoms reported by Athletes:

- Headache
- Nausea
- Balance problems
- Double or blurry vision
- Sensitivity to light and noise
- Fatigue or drowsiness
- Changed sleep patterns
- Trouble comprehending and/or concentrating
- Difficulty paying attention
- Depression
- Irritability, nervousness or sadness
- Feeling “just not right” or in a “fog”

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The Coach's Role in Concussion Education

As a coach, your role is pivotal in educating your team, assistant coaches, parents and teachers about the seriousness of concussion. Knowing the symptoms of concussion and getting the athlete to a health care provider experienced in evaluating for concussion as quickly as possible, is critical.

You are the glue that holds the team together. As such, it is up to you to take the lead in concussion education and make it part of your team's game plan. It is important to effectively educate your team, your fellow coaches, teachers and community members about sports-related concussions.

1. Do you have a concussion policy? Does it state:
 - your commitment to safety
 - gives a brief description of concussion
 - tells when it's safe to return to play
 - has the policy statement been signed by parents and athletes at the beginning of the season?

Visit sports-health.org to download the Cleveland Clinic Florida Sports Concussion Policy Template. Get support from other school officials to have a policy in place before the first practice.

2. Create and have a concussion action plan in place before the season starts
 - identify a health care professional to respond to injuries during practices and games
 - keep a card with signs, symptoms and emergency contacts readily available
 - involve other school officials in the action plan and train them to use it
3. Educate athletes, parents, other coaches, school staff and school nurse or school health care professionals about concussion
4. Encourage your athletes to have neurological baseline testing before the season begins
5. Monitor the health of your athletes

As a coach, your role is key in making concussion awareness part of your team's pre-season and pre-game checklist. You will help prevent potentially catastrophic injuries, and should they occur, be armed with knowledge to act quickly and keep your team as healthy as possible.

Evaluations and Management

Coaches and Athletic Trainers who suspect an athlete has sustained a concussion, should immediately remove the athlete from play, practice or games. The athlete should not return until evaluated by a medical professional. A medical professional should provide a neurological check, along with a mental status evaluation that includes orientation, concentration, balance and amnesia. No athlete with symptoms at rest or with activity is permitted to return to play.

The athlete who has suffered a concussion should be monitored for deterioration and should not be left alone.

While many athletes experience only temporary neurological impairment lasting one to two days, some athletes have symptoms lasting weeks to months. That is why it's important for athletes to undergo a more thorough evaluation by a physician, experienced in evaluating and treating concussions, before starting a progressive return to play. The National Federation of State High School Associations (NFSHSA) and the National Collegiate Athletics Association (NCAA) recommend physical activity be restricted after a concussion has been diagnosed.

In an effort to decrease the risk of injury and re-injury, many sports governing bodies, including the NFL, NCAA, NAAHL, MLB and NFSHSA, have developed new recommendations for concussive injuries. These recommendations continue to evolve as more scientific information becomes available. They require athletes suspected of concussion to be removed from practices or games immediately and be evaluated by medical professional. Several states have begun passing laws regarding concussion evaluation and management.

Returning to Play

Recovery from a concussion starts immediately with physical and mental rest and may take days to several weeks. This means no activity. The athlete remains under the observation of an adult or healthcare professional during their recovery.

Athletes should not return to play until the appropriate healthcare professional ensures that they are totally symptom-free and approved to start a gradual stepwise progression. Once the signs and symptoms of a concussion have resolved, gradual stepwise exertion (such as light aerobic training) is started. The athlete can then move on to sport specific training. Non-contact drills are followed by full-contact drills, and, if no symptoms appear, a return to competition.

If at any point signs or symptoms of concussion recur, the athlete must be reevaluated, rest and be symptom free before returning back to stepwise progression.

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Late effects of concussion may include short-term memory problems, academic difficulties, fatigue and sleep disturbances, irritability and depression. School teachers, administrators, guidance counselors and school nurses should be familiar with the signs and symptoms of concussion to monitor the athlete academically during healing.

Medical clearance is required at each step of recovery before an athlete can return to play.

“Prompt recognition and treatment is paramount. Premature return to activity can prolong recovery and lead to long-term cognitive deficits.”

Farah Tejpar, MD, Sports Medicine Specialist at Cleveland Clinic Florida

Pre-Season Testing

Because conventional imaging techniques, such as MRI and CT scans, do not detect concussions, Cleveland Clinic Florida Sports Health experts use a well-accepted computerized test known as Immediate Post-concussion and Cognitive Testing (ImPACT™) to make a more precise sports-related concussion diagnosis and to monitor the progress of the athlete and assist in return to play decision making.

Ideally, the ImPACT test is taken before an athlete steps onto the playing field. The half-hour test is administered to gather baseline data on the athlete’s memory, balance, reaction time and other cognitive functions.

If the athlete then sustains a concussion, another ImPACT test is administered days after the concussion. Comparing these results with baseline, physicians can determine the severity of the concussion and design an appropriate treatment plan, which is shared with the parents, referring physician, athletic trainer and coach. If necessary, the athlete undergoes concussion rehabilitation which may include vestibular, or balance, training through physical therapy. ImPACT testing may be repeated later to help in deciding when the athlete can safely return to play.

Prevention

Although we know of nothing that can prevent a concussion, be smart and follow these guidelines:

- Use the proper sports and personal protective equipment. Equipment must be:
 - the right equipment for the game, position or activity
 - worn correctly and be the correct size and fit
 - used every time you play or practice
 - in good condition
 - wear a mouth piece and for Football – chin strap
- Coaches should insist that players follow the rules of the game and display good sportsmanship at all times.

Every time you take your team onto the playing field, you’re facing two opponents— the opposing team and a silent, invisible opponent, the very real threat of concussion. Educate yourself, your fellow coaches and your team about the dangers of concussion and how to prevent them.

THINK YOU OR YOUR ATHLETE MAY HAVE A SPORTS-RELATED CONCUSSION?

Cleveland Clinic Florida Sports Health offers comprehensive concussion evaluations and management from one experienced team.

To schedule a consultation with a concussion specialist, call **866.287.2963**.



Use Your Head When It Comes to Concussions

Protect your players – when in doubt, sit them out.

Know the signs and symptoms of a concussion

Concussions don't always cause a loss of consciousness. Here are some of the most common signs and symptoms:

Signs Observed by Coaches or Parents:

- A dazed or stunned appearance
- Confusion or clumsiness
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Symptoms reported by Athletes:

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- Feeling "just not right" or in a "fog"

***Concussion symptoms can worsen with physical and mental activity, such as using your computer, gaming system or texting.*

Additional risk factors include:

- Athletes with a history of previous brain impairment
- Younger athletes whose brains aren't fully developed
- Recent or previous concussion
- Poorly fitting or improper equipment
- Poor technique
- Neglect of sports' rules
- Genetic factors

Action Plan

If you suspect an athlete has sustained a concussion you should

1. Immediately, remove the athlete from play, practice or games.
 - Seek medical treatment immediately if you notice any of the following danger signs or severe symptoms in your athletes:
 - One pupil larger than the other
 - Is drowsy and cannot be awakened
 - A headache that does not diminish, and gets worse
 - Weakness, numbness or decreased coordination
 - Repeated nausea or vomiting

- Slurred speech
- Convulsions or seizures
- Cannot recognize people or places
- Becomes increasingly confused, restless or agitated
- Has unusual behavior
- Loses consciousness (a brief loss of consciousness should be taken seriously)

2. Ensure athlete is evaluated by a healthcare professional experienced in evaluating concussions.
3. Athletes shouldn't return to play until cleared by a physician.

To schedule a consultation with a concussion specialist, call **866.287.2963**.