



## **Guidelines for the Prevention and Management of Concussions and Head Injuries in Youth Sports**

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### **Background**

The Center for Disease Control estimates that 300,000 concussions are sustained during sports-related activity each year in the United States. A concussion is a traumatic brain injury caused by a direct or indirect blow to the head or body. In order to ensure the safety of young athletes, it is important that youth coaches, officials, managers and parents/guardians are educated about the nature and treatment of sports-related concussions and brain injuries.

### **Recommendations**

Recreation and parks departments and youth sports organizations should develop procedures for the prevention and management of concussions and head injuries in accordance with the following guidelines:

- 1) Require all coaches, managers, trainers, facility supervisors and officials to complete a head injury safety training program that includes, but is not limited to the following:
  - a. the recognition of the symptoms of head and neck injuries, concussions, and injuries related to second-impact syndrome; and
  - b. information on return to play protocols which may be necessary for participants who have sustained a concussion or other head injury.
- 2) Distribute an educational fact sheet prior to each sports season that provides information about sports-related concussions and other head injuries to the parents or guardians of the participants.
- 3) Ensure that participants who are suspected of having a concussion or other head injury shall be immediately removed from practice or competition and not participate in further sports activity until he/she is evaluated by a physician or other licensed healthcare provider trained in the evaluation and management of concussion and receives written clearance from the physician to resume participation.

Please be aware that if the recreation and parks department and youth sports organizations use fields and facilities they do not own, the owners of those facilities may have additional requirements.

### **Resources**

CDC Heads Up Online Training Course: [http://www.cdc.gov/concussion/HeadsUp/online\\_training.html](http://www.cdc.gov/concussion/HeadsUp/online_training.html)

Sample Parent and Guardian Fact Sheet (attached)

Sample Return to Play Protocol (attached)

## Sports-Related Concussion and Head Injury Fact Sheet

The Centers for Disease Control and Prevention estimates that 300,000 concussions are sustained during sports related activities nationwide. A concussion is a brain injury that can be caused by a blow to the head or body that disrupts normal functioning of the brain. Concussions are a type of Traumatic Brain Injury (TBI), which can range from mild to severe and can disrupt the way the brain normally functions. Concussions can cause significant and sustained neuropsychological impairment affecting problem solving, planning, memory, attention, concentration, and behavior. Multiple concussions can cause severe impairment and even death.

### Quick Facts

- Most concussions do not involve loss of consciousness
- You can sustain a concussion even if you do not hit your head
- A blow elsewhere on the body can transmit an "impulsive" force to the brain and cause a concussion

### Signs of Concussions (Observed by Coach or Parent/Guardian)

- Appears dazed or stunned
- Forgets plays or demonstrates short term memory difficulties (e.g. unsure of game, opponent)
- Exhibits difficulties with balance, coordination, concentration, and attention
- Answers questions slowly or inaccurately
- Demonstrates behavior or personality changes
- Is unable to recall events prior to or after the hit or fall

### Symptoms of Concussion (Reported by Child or Observed by Parent/Guardian)

- Headache
- Nausea/vomiting
- Balance problems or dizziness
- Double vision or changes in vision
- Sensitivity to light/sound
- Feeling of sluggishness or fogginess
- Difficulty with concentration, short term memory, and/or confusion

### What should a child do if they think they have a concussion?

- **Don't hide it.** Tell your Coach and Parent/Guardian.
- **Report it.** Don't return to competition or practice with symptoms of a concussion or head injury. The sooner you report it, the sooner you may return-to-play.
- **Take time to recover.** If you have a concussion your brain needs time to heal. While your brain is healing you are much more likely to sustain a second concussion. Repeat concussions can cause permanent brain injury.

### What can happen if a child continues to play with a concussion or returns to play too soon?

- Continuing to play with the signs and symptoms of a concussion leaves the child vulnerable to second impact syndrome which is when a child sustains a second concussion while still having symptoms from a previous concussion or head injury.
- Second impact syndrome can lead to severe impairment and even death in extreme cases.

### Should there be any temporary academic accommodations made for children who have suffered a concussion?

- Cognitive rest is just as important as physical rest. Reading, texting, testing, or TV viewing can slow down recovery.
- Children may need to stay home from school with minimal mental and social stimulation until all symptoms have resolved.
- Children may need rest breaks, fewer hours at school, extra time to complete assignments, and other accommodations.
- For more information on Return-To-Learn Procedures please ask your medical professional.

### Children who have sustained a concussion should complete a graduated return-to-play system before they may resume competition or practice, according to the following protocol:

- **Step 1:** Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without reemergence of any signs or symptoms. If no return of symptoms, next day advance.
- **Step 2:** Light Aerobic exercise, which includes walking, swimming, and stationary cycling, keeping the intensity below 70% maximum heart rate. No resistance training. The objective of this step is increased heart rate.
- **Step 3:** Sport-specific exercise including skating, and/or running: no head impact activities. The objective of this step is to add movement.
- **Step 4:** Non-contact training drills (e.g. passing drills). Athlete may initiate resistance training.
- **Step 5:** Following medical clearance (from medical professional trained in concussion treatment), participation in normal training activities. The objective of this step is to restore confidence and assess functional skills.
- **Step 6:** Return to play involving normal exertion or game activity.

For further information on Sports-Related Concussions and other Head Injuries, please visit:

<http://www.cdc.gov/headsup/index.html>  
[www.ncaa.org/health-safety](http://www.ncaa.org/health-safety)

[www.nfhs.com](http://www.nfhs.com);  
[www.bianj.org](http://www.bianj.org);

[www.atsnj.org](http://www.atsnj.org)

## **Concussion Return to Play Protocol**

*Recommended by the US Centers for Disease Control [www.cdc.gov/headsup](http://www.cdc.gov/headsup)*

### **Graduated Return to Competition and Practice Protocol**

Following complete cognitive recovery and return to school, and after written medical clearance is given by a physician trained in the evaluation and management of concussions stating that the child is asymptomatic at rest, the child may begin a graduated individualized return-to-play protocol as directed by a physician or licensed health care provider trained in the evaluation and management of sports-related concussions. Progressing at one step per day, the return-to-play protocol should take approximately one week to complete. An athlete should only move to the next step if they do not have any new symptoms at the current step. The following steps should be followed:

1. Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without re-emergence of any signs or symptoms. If no return of symptoms, next day advance to:
2. Begin with light aerobic exercise only to increase an athlete's heart rate. This means about 5 to 10 minutes on an exercise bike, walking, or light jogging. No weightlifting at this point. The objective of this step is increased heart rate. If no return of symptoms, next day advance to:
3. Continue with activities to increase an athlete's heart rate with body or head movement. This includes moderate jogging, brief running, moderate-intensity stationary biking, moderate-intensity weightlifting (less time and/or less weight than a typical routine). If no return of symptoms, next day advance to:
4. Add heavy non-contact physical activity, such as sprinting/running, high-intensity stationary biking, regular weightlifting routine, non-contact sport-specific drills (in 3 planes of movement). The objective of this step is to add movement and continue to increase heart rate. If no return of symptoms, next day advance to:
5. Return to practice and full contact (if appropriate for the sport) in controlled practice. If no return of symptoms, next day advance to:
6. Return to play involving normal exertion or game activity.

**REMEMBER:** It is important for the coach, trainer, and the athlete's parent(s) to watch for concussion symptoms after each day's return to play progression activity. If an athlete's concussion symptoms come back, or he or she gets new symptoms when becoming more active at any step, this is a sign that the athlete is pushing him- or herself too hard. The athlete should stop these activities, and the athlete's health care provider should be contacted. After the okay from the athlete's health care provider, the athlete can begin at the previous step.