Concussion and Head Injury Information

Wis. Stat. § 118.293 Concussion and Head Injury

What Is a Concussion? A concussion is a type of head (brain) injury that changes the way the brain normally works. A concussion is caused by a bump, blow, or jolt to the head. Concussions can also occur from a blow to the body that causes the head and brain to move rapidly back and forth. Even what seems to be a mild bump to the head can be serious. Concussions can have a more serious effect on a young, developing brain and need to be addressed correctly. Consequences of severe brain injury (including concussion) include problems with thinking, memory, learning, coordination, balance, speech, hearing, vision, and emotional changes.

What are the signs and symptoms of a concussion? You cannot see a concussion. Signs and symptoms of concussion can show up right after an injury or may not appear or be noticed until hours or days after the injury. It is important to watch for changes in how you as an athlete or your child or teen is acting or feeling, if symptoms are getting worse, or if you/they just "don't feel right." Most concussions occur without loss of consciousness.

If the child or teen reports one or more of the symptoms of concussion listed below, or if you notice the signs or symptoms yourself, seek medical attention right away. Children and teens are among those at greatest risk for concussion.

These are some SIGNS of concussion (what others can see in an injured athlete):

- Dazed or stunned appearance
- Unsure of score, game, opponent
- Clumsy
- Answers more slowly than usual
- Shows behavior or personality changes
- Loss of consciousness (even briefly)
- Repeats questions
- Forgets class schedule or assignments

These are some of the more common SYMPTOMS of concussion (what an injured athlete feels):

- Headache
- Nausea or vomiting
- Dizzy or unsteady
- Sensitive to light or noise or blurry vision
- Difficulty thinking clearly, concentrating, or remembering
- Irritable, sad, or feeling more emotional than usual
- Sleeps *more* or *less* than usual

Children and teens with a suspected concussion should NEVER return to sports or recreation activities on the same day the injury occurred.

They should delay returning to their activities until a healthcare provider experienced in evaluating for concussion says it is OK to return to play. This means, until permitted, not returning to:

- Physical Education (PE) class
- Sports practices or games
- Physical activity at recess

If you or your child or teen has signs or symptoms of a concussion

Seek medical attention right away. A healthcare provider experienced in evaluating for concussion can determine how serious the concussion is and when it is safe to return to normal activities, including physical activity and school (concentration and learning activities).

After a concussion, the brain needs time to heal. Activities may need to be limited while recovering. This includes exercise and activities that involve a lot of concentration.

Information adapted from the Centers for Disease Control and Prevention's (CDC) Heads Up Safe Brain. Stronger Future.

For more information view the CDC's Heads Up to Youth Sports webpages for athletes, parents, and coaches.

WISCONSIN DEPARTMENT OF Public Instruction

Sudden Cardiac Arrest Information

Wis. Stat. § 118.2935 Sudden cardiac arrest; youth athletic activities

Sudden cardiac arrest (SCA), while rare, is the leading cause of death in young athletes while training or participating in sport competition. Even athletes who appear healthy and have a normal preparticipation screening may have underlying heart abnormalities that can be life-threatening. A family history of SCA at younger than age 50 or cardiomyopathy (heart muscle problem) places an athlete at greater risk. **Athletes should inform the healthcare provider performing their physical examination about their family's heart history.**

What is Sudden Cardiac Arrest? Cardiac arrest is a condition in which the heart suddenly and unexpectedly stops beating. If this happens, blood stops flowing to the brain, lungs, and other vital organs.

Cardiac arrest usually causes death if it is not treated with cardiopulmonary resuscitation (CPR) and an automated external defibrillator (AED) within minutes.

Cardiac arrest is not the same as a heart attack. A heart attack occurs if blood flow to part of the heart muscle is blocked. During a heart attack, the heart usually does not suddenly stop beating. In cardiac arrest the heart stops beating.

What warning signs during exercise should athletes/coaches/parents watch out for?

- Fainting/blackouts (especially during exercise)
- Dizziness
- Unusual fatigue/weakness
- Chest pain/tightness with exertion
- Shortness of breath
- Nausea/vomiting
- Palpitations (heart is beating unusually fast or skipping beats)

Stop activity/exercise immediately if you have any of the warning signs of Sudden Cardiac Arrest.

Speak up and tell a coach and parent/guardian if you notice problems when exercising.

If an athlete has any warning signs of SCA while exercising, they should **seek medical attention and evaluation from a healthcare provider before returning to a game or practice.**

The risk associated with continuing to participate in a youth activity after experiencing warning signs is that the athlete may experience SCA, which usually causes death if not treated with CPR and an AED within minutes.

What are ways to screen for Sudden Cardiac Arrest (SCA)?
WIAA Pre-Participation Physical Evaluation – the Medical History form includes important heart related questions and is required every other year. Additional screening using an electrocardiogram and/or an echocardiogram may be done if there are concerns in the history or physical examination but is not required (by WIAA). Parents/guardians/athletes should discuss the need for specific cardiac testing with the medical provider performing the review of family history and physical evaluation or after experiencing warning signs of sudden cardiac arrest while exercising. The cost of the pre-participation physical and any follow up examinations or recommended testing including an electrocardiogram is the responsibility of the athlete and their parents/guardians. **Not all cases or causes of SCA in young athletes are detected in the history, examination, or with testing.**

What is an electrocardiogram, its risks, and benefits? An electrocardiogram (ECG) is one of the simplest and fastest tests used to evaluate the heart. Electrodes (small, plastic patches that stick to the skin) are placed at specific spots on the chest, arms, and legs. The electrodes are connected to an ECG machine by wires. The electrical activity of the heart is then measured, interpreted, and printed out. No electricity is sent into the body. Risks associated with having an ECG are minimal and rare. The benefits include that it

is an easy procedure to do, can be performed in many health care offices and it may detect heart conditions in children with no symptoms. **ECGs are good at detecting certain heart conditions that may increase risk for SCA but may not detect all such conditions.** If not performed correctly the information is not valid and may lead to more (unnecessary) testing and further examinations. ECGs should be interpreted by experts in reading ECGs in children (i.e., pediatric cardiologists). For more information, view the Johns Hopkins Medicine - Electrocardiogram website.

How may a student athlete and parent/guardian request the administration of an electrocardiogram and a comprehensive physical examination? Athletes participating in WIAA sports are required to have a physical examination and review of family history every other year. Other youth sports have similar requirements. Although the cost of these medical examinations is the responsibility of the athlete's family many school districts can assist students to find low cost or no cost ways to obtain these examinations. Athletes should contact their school athletic director if they need assistance in getting an examination. If an athlete has risk factors, family history of heart disease, or has had warning signs associated with sudden cardiac arrest while exercising, they should tell the medical provider performing the history and physical examination and discuss the possible need for an electrocardiogram.