

Concussion & Cardiac Arrest Information

On May 14, 2009 the Governor of Washington, Christine Gregoire, signed House Bill 1824, also known as the "Zackery Lystedt Law". SB 5083 was passed in 2015 pertaining to concussions. The legislature intends to make youth athletes, their families, and coaches aware of the effects, treatments, and preventative steps of sudden cardiac arrests and concussions.



Concussion

What is a concussion?

A concussion is a brain injury which results in a temporary disruption of normal brain function. A concussion occurs when the brain is violently rocked back and forth or twisted inside the skull, typically from a blow to the head or body. An athlete does not need to lose consciousness (be "knocked-out") to suffer a concussion, and in fact, less than ten percent of concussed athletes suffer loss of consciousness.

Concussion Facts

A concussion is a type of traumatic brain injury. The result is a more obvious functional problem than a clear structural injury, causing it to be invisible to standard medical imaging (CT and MRI scans). It is estimated that over 140,000 high school athletes across the United States suffer a concussion each year. (Data from NFHS Injury Surveillance System) A concussion may cause multiple symptoms. Many symptoms appear immediately after the injury, while others may develop over the next several days or weeks. The symptoms may be subtle and are often difficult to fully recognize. Concussion symptoms may last from a few days to several months.

What are the signs and symptoms of a concussion?

Observed by parents, friends, teachers, or coaches:	Reported by athlete:
Appears dazed or stunned	Headache
Confused about what to do	Nausea
Forgets plays	Balance problems or dizziness
Unsure of game, score, or opponent	Double or fuzzy vision
Moves clumsily	Sensitivity to light or noise
Answers questions slowly	Feeling sluggish
Loses consciousness	Feeling foggy or groggy
Behavior or personality changes	Concentration or memory problems
Can't recall events before/prior hit	Confusion

What should I do if I think my child has had a concussion?

If an athlete is suspected of having a concussion, he or she must be immediately removed from that activity. Continuing to play or work out when experiencing concussion symptoms can lead to worsening of symptoms, increased risk for further injury and possibly death. Parents and coaches are not expected to be able to make the diagnosis of a concussion. A medical professional trained in the diagnosis and management of concussions will determine the diagnosis. However, you must be aware of the signs and symptoms of a concussion. If you are suspicious your child has suffered a concussion, he or she must stop activity right away and be evaluated.

When in doubt, sit them out!

All student-athletes who sustain a concussion need to be evaluated by a health care professional who is experienced in concussion management. You should call your child's physician and explain what has happened and follow your physician's instructions. If your child is vomiting, has a severe headache, is having difficulty staying awake or answering simple questions, he or she should be immediately taken to the emergency department.

When can an athlete return to play following a concussion?

After suffering a concussion, no athlete should return to play or practice on that same day. Studies have shown that the young brain does not recover quickly enough for an athlete to safely return to activity in such a short time.

Once an athlete no longer has symptoms of a concussion and is cleared for return to play, he or she should proceed with activity in a step-wise fashion to allow the brain to re-adjust to exertion. An example of a typical return-to-play schedule is shown below:

Day 1: Light exercise, including walking or riding an exercise bike. No weight-lifting.

Day 2: Running in the gym or on the field. No helmet or other equipment.

Day 3: Non-contact training drills in full equipment. Weight-training can begin.

Day 4: Full contact practice or training.

Day 5: Game play.

If symptoms occur at any step, the athlete should cease activity and be re-evaluated by their health care provider.

How can a concussion affect schoolwork?

Following a concussion, many student-athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short- and long-term memory, concentration and organization.

In many cases after the injury, it is best to decrease the athlete's class load early in the recovery phase. This may include staying home from school for a few days, followed by academic accommodations (such as a reduced class schedule), until the athlete has fully recovered. Decreasing the stress on the brain and not allowing the athlete to push through symptoms will shorten the recovery time.

What can I do?

- Both you and your child should learn to recognize the "Signs and Symptoms" of concussion as listed above.
- Teach your child to tell the coaching staff if he or she experiences such symptoms.
- Emphasize to administrators, coaches, teachers and other parents your concerns and expectations about concussion and safe play.
- Teach your child to tell the coaching staff if he or she suspects that a teammate has suffered a concussion.
- Ask teachers to monitor any decrease in grades or changes in behavior that could indicate a concussion.
- Report concussions that occurred during the school year to appropriate school staff. This will help in monitoring injured athletes as they move to the next season's sports.

Why is it so important that athletes not return to play until they have completely recovered from a concussion?

Student-athletes that return to any activity too soon (school work, social activity or sports activity), can cause the recovery time to take longer. They also risk recurrent, cumulative or even catastrophic consequences, if they suffer another concussion. Such risk and difficulties are prevented if each athlete is allowed time to recover from his or her concussion and the return-to-play decisions are carefully and individually made. No athlete should return to sport or other at-risk activity when signs or symptoms of concussion are present and recovery is ongoing.

Is a "CAT scan" or MRI needed to diagnose a concussion?

Diagnostic testing, which includes CT ("CAT") and MRI scans, are rarely needed following a concussion. While these are helpful in identifying life-threatening head and brain injuries (skull fractures, bleeding or swelling), they are currently insensitive to concussive injuries and do not aid in the diagnosis of concussion. Concussion diagnosis is based upon the athlete's story of the injury and a health care provider's physical examination and testing.

What is the best treatment to help my child recover quickly from a concussion?

The best treatment for a concussion is rest. There are no medications that can help speed the recovery. Exposure to loud noises, bright lights, computers, video games, television and phones (including text messaging) may worsen the symptoms of a concussion. You should allow your child to rest as much as possible in the days following a concussion. As the symptoms lessen, you can allow increased use of computers, phone, video games, etc., but the access must be lessened or eliminated, if symptoms worsen.

How long do the symptoms of a concussion usually last?

The symptoms of a concussion will usually go away within 2–3 weeks of the initial injury. You should anticipate that your child will likely be out full participation in sports for about 3–4 weeks following a concussion. However, in some cases symptoms may last for many more weeks or even several months. Symptoms such as headache, memory problems, poor concentration, difficulty sleeping and mood changes can interfere with school, work, and social interactions. The potential for such long-term symptoms indicates the need for careful management of all concussions.

I've read recently that concussions may cause long-term brain damage in professional football players. Is this a risk for high school athletes who have had a concussion?

The issue of "chronic traumatic encephalopathy (CTE)" in former professional players has received a great deal of media attention lately. Very little is known about what may be causing these dramatic abnormalities in the brains of these unfortunate players. At this time we do not know the long-term effects of concussions (or even the frequent sub-concussive impacts) which happen during high school athletics. In light of this, it is important to carefully manage every concussion and all concussion-like signs and symptoms on an individual basis.

"Heads Up: Concussion in High School Sports" materials by the NFHS's Sports Medicine Advisory Committee. Please go to www.cdc.gov/ncipc/tbi/Coaches_Tool_Kit.htm for more information.



Sudden Cardiac Arrest Information Sheet for Student-Athletes, Coaches and Parents/Guardians SSB 5083 ~ SCA Awareness Act



What is sudden cardiac arrest? Sudden Cardiac Arrest (SCA) is the sudden onset of an abnormal and lethal heart rhythm, causing the heart to stop beating and the individual to collapse. SCA is the leading cause of death in the U.S. afflicting over 300,000 individuals per year.

SCA is also the leading cause of sudden death in young athletes during sports

What causes sudden cardiac arrest? SCA in young athletes is usually caused by a structural or electrical disorder of the heart. Many of these conditions are inherited (genetic) and can develop as an adolescent or young adult. SCA is more likely during exercise or physical activity, placing student-athletes with undiagnosed heart conditions at greater risk. SCA also can occur from a direct blow to the chest by a firm projectile (baseball, softball, lacrosse ball, or hockey puck) or by chest contact from another player (called "commotio cordis").

While a heart condition may have no warning signs, some young athletes may have symptoms but neglect to tell an adult. If any of the following symptoms are present, a cardiac evaluation by a physician is recommended:

- Passing out during exercise
- Chest pain with exercise
- Excessive shortness of breath with exercise
- Palpitations (heart racing for no reason)
- Unexplained seizures
- A family member with early onset heart disease or sudden death from a heart condition before the age of 40

How to prevent and treat sudden cardiac arrest? Some heart conditions at risk for SCA can be detected by a thorough heart screening evaluation. However, all schools and teams should be prepared to respond to a cardiac emergency. Young athletes who suffer SCA are collapsed and unresponsive and may appear to have brief seizure-like activity or abnormal breathing (gaspings). SCA can be effectively treated by immediate recognition, prompt CPR, and quick access to a defibrillator (AED). AEDs are safe, portable devices that read and analyze the heart rhythm and provide an electric shock (if necessary) to restore a normal heart rhythm.

Remember, to save a life: recognize SCA, call 9-1-1, begin CPR, and use an AED as soon as possible!



Cardiac 3-Minute Drill

1. RECOGNIZE

Sudden Cardiac Arrest

- Collapsed and unresponsive
- Abnormal breathing
- Seizure-like activity

2. CALL 9-1-1

- Call for help and for an AED

3. CPR

- Begin chest compressions
- Push hard/ push fast (100 per minute)

4. AED

- Use AED as soon as possible

5. CONTINUE CARE

- Continue CPR and AED until EMS arrives



**Be Prepared!
Every Second
Counts!**