



## CONCUSSIONS

### **Information**

A blow to the head can disrupt the normal function of the brain. Doctors often call this type of brain injury a “concussion” or a “closed head injury.” They may describe these injuries as “mild” because concussions are usually not life threatening. However, the effects of a concussion can be serious.

After a concussion, some people lose consciousness and are “knocked out” for a short time, but not always - you can have a brain injury without losing consciousness. Some people are simply dazed or confused.

Because the brain is very complex, every brain injury is different. Some symptoms may appear right away, while others may not show up for days or weeks after the concussion. Sometimes the injury makes it hard for people to recognize or admit that they are having problems.

The signs of concussion are subtle. Early on, problems may be missed. People may look fine even though they are acting or feeling differently.

Because all brain injuries are different, so is recovery. Most people with mild injuries recover fully, but it can take time. Some symptoms can last for days, weeks, or longer. People with a concussion need to be seen by a Doctor.

### **Signs and Symptoms**

Some of the symptoms of a concussion are:

- Low-grade headaches that won't go away
- Feeling light-headed or dizzy
- Increased sensitivity to sounds or lights
- Blurred vision
- Ringing in the ears
- Slowness in thinking, acting, speaking, or reading
- Getting easily confused
- Memory loss

- Difficulty paying attention or concentrating
- Neck pain
- Lack of energy
- Severe mood changes - feeling sad, anxious, or angry

### **Danger Signs**

In very rare cases, along with a concussion, a dangerous blood clot may form on the brain and crowd the brain against the skull. Contact your Doctor or Emergency Department right away if you have any of the following symptoms:

- Headaches that worsen over time
- Weakness, numbness, or decreased coordination
- Repeated vomiting

The people checking on you should take you to an Emergency Department right away if you:

- Cannot be awakened
- Have one pupil (the black dot of your eye) larger than the other
- Have convulsions or seizures
- Have slurred speech
- Become more confused, restless, or agitated

### **Recovery**

How fast people recover from a concussion varies from person to person. Although most people have a good recovery, how quickly depends on many factors. These factors include how severe the concussion was, what part of the brain was injured, their age, and how healthy they were before the concussion.

Rest is very important after a concussion because it helps the brain to heal. You will need to be extremely patient because healing takes time. As the days go by, you can expect to gradually feel better.

While you are healing, you should be very careful to avoid doing anything that could cause a blow to your head. On rare occasions, receiving another blow before a concussion has healed can be fatal. Here are some tips for healing:

- Get plenty of sleep at night and rest during the day
- Return to activities gradually, not all at once
- Avoid activities that could lead to a 2nd brain injury until cleared by the Doctor
- Take only those drugs that your doctor has approved

# LOVELAND SPORTS MEDICINE CONCUSSION MANAGEMENT

In order to provide the safest atmosphere for the athletes at Loveland High School, the Athletic Department along with the Sports Medicine staff has implemented ImPACT testing. All athletes that participate in sports that are considered “at risk” for concussions have been tested and all incoming freshman athletes will be tested pre-season to establish an individualized baseline of normal cognitive function. This baseline will be used for their entire athletic career at Loveland High School.

The Ohio High School Athletic Association (OHSAA) states, “When a player has experienced or shown signs of brain trauma, they should receive immediate medical attention and should not be allowed to return to practice or game without permission from the proper medical authorities.” Coaches should encourage players to let them or the athletic trainer know if they have any of the following symptoms: confusion, memory problems, headaches, blurred or double vision, dizziness, oversensitivity to light, sound, or touch, ringing in ears, slow, slurred speech, and slow reaction time. An athlete who presents with these symptoms must be evaluated by the athletic trainer immediately. The athletic trainer will then determine if further medical intervention is needed.

At that point, the athlete will be referred to a physician who is trained in diagnosing and treating concussions. Dr. Michael Shaffer of Children’s Hospital is the doctor of choice due to his experience in this area. The athlete will then take the ImPACT test and the results will be compared with the athlete’s baseline test. This gives a clear picture of whether there is a difference in the cognitive ability of the athlete, which determines whether the athlete has a concussion or not.

Once the athlete has recovered sufficiently and is symptom-free, they will begin a 6-day protocol for return to their sport. The protocol allows the athlete to gradually work towards returning to play by doing light exercise at first, then basic drills and practice, and finally returning to play in games, provided there are no setbacks. Before returning to play, all athletes participating in contact or collision sports with a history of concussions will be required to wear a custom mouth guard. Football players with a history of concussions will be required to wear Revolution helmets.

Parents and coaches should NEVER encourage a child to “play through it” with a concussion. More and more research has shown that “Second Impact Syndrome” is a cause of sudden death in athletes. **I believe we all strive to be competitive and win, but no child’s life is worth it for a game!**

For more information on concussions and ImPACT testing please visit <http://www.impacttest.com/> , <http://www.ohsaa.org/medicine/default.asp> , [http://www.cdc.gov/ncipc/tbi/physicians\\_tool\\_kit.htm](http://www.cdc.gov/ncipc/tbi/physicians_tool_kit.htm).

# CONCUSSION PROTOCOL

## STEPS FOR RETURN TO PLAY

Once you are symptom-free, you may progress the following day to the next step. Day 1 is the day following the 1st symptom-free day!

Day 1) **NO** activity, complete rest. Stay home from school and no school work or studying.

Day 2) Light aerobic exercise such as walking or stationary cycling. No resistance training.

Day 3) Sport specific exercise – for example, skating and puck handling in hockey, running and ball skills in soccer (NO HEADING): football quarterbacks may resume sideline throwing. An important portion of this step is the addition of one set of low resistance or simple resistance training.

Day 4) Resume non-contact training drills; for example, walk-through pass blocking for football linemen. Add additional sets and higher intensity resistance training.

Day 5) Full contact practice after receiving medical clearance. Do not skip this important step.

Day 6) Game play

If any post-concussion symptoms develop at any stage, drop back to the previous level and try to progress again after 24 hours. No medications may be taken at any step of the progression. This is to prevent masking a more serious underlying condition. You must check in with your athletic trainer every day **PRIOR** to practice. Your trainer will give you a personalized copy of this paper on Day 1 with all of the dates listed for each specific day.