# **Vermont Concussion Information**

### How is it Diagnosed?

Your health care provider will examine you and obtain a thorough history. If you can't remember what happened, he or she may need to get this information from other people who saw the accident. He/She will do a neurologic examination, testing your strength, sensation, balance, reflexes, and memory. They may also look at your eyes with a flashlight to see if your pupils are the same size. You may be tested again several times during the next hour to detect any worsening of brain function, which can occur if you have any bleeding or swelling in the brain. X-rays of the brain are rarely needed or useful. Depending on how your head injury occurred, you may have neck x-rays to check your spine.

### How is it Treated?

**The treatment for a concussion is physical AND cognitive rest.** That means no physical exertion. Avoid TV, computer work and video games. Extra time may be required for school assignments.

**Medications:** No medications will speed the recovery process.

• Ibuprofen or Tylenol may help to reduce your headache symptoms.

Ibuprofen: 4 tabs (total 800 mg) every 8 hours as needed for pain.

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Tylenol: 2 tabs (total 650 mg) every 4-5 hours as needed.

- Your doctor may suggest medication for nausea.
- If you take stimulant medications (Adderall, Ritalin, etc.), antidepressants, or sleeping aids you should discuss these with your doctor, as they may affect your recovery.

**Home Care:** If you have had a concussion, you need to be watched by a friend or relative for 8 to 12 hours. It is not necessary to be awakened from sleep after a concussion; however, it is important to have someone around in the event your symptoms worsen.

**Red Flags**: Symptoms to report promptly to your health care provider include:

- confusion
- difficulty in rousing from sleep
- seizures
- unequal pupil sizes
- restlessness or irritability
- numbness or trouble using your legs or arms
- worsening vomiting
- headache that will not go away after being treated with Tylenol or Ibuprofen
- garbled speech
- bleeding from the ears or nose
- decreasing alertness
- unusual sleepiness
- unusual behavior
- increased difficulty balancing

Developed by the Fletcher Allen Health Care Concussion Task Force

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**Recovery:** If you are stable and recovering during the next 24 hours, you should rest for an additional day or two. As your symptoms go away, you can slowly begin to go back to your usual daily routine. All physical exertion should be avoided until you are cleared by your medical provider. You should stay away from any activities that would risk re-injury. A second concussion before the first one has healed could be very serious and prolong your recovery.

#### How long will it take me to recover?

- There is no way to accurately predict how long the recovery process will take.
- Recovery usually follows a sequential course but in small number of cases, symptoms may last a long time.
- A few people may have symptoms for 6 months after the injury, but most improve more quickly.

## Return to Play

You are only allowed to begin the graduated return to play protocol when you are completely symptom free. During your recovery and when you still have symptoms, you must abide by complete physical and cognitive rest.

It is critically important to be honest with yourself regarding your symptoms as returning too soon may result in a prolonged recovery time. Only you, the athlete, will know when you are feeling ready to increase your activity level.

See Return to Play Plan.

### How Can I Prevent a Concussion?

It is very difficult to prevent concussions from occurring. It is important in contact sports that you wear proper protective head gear that fits well. In sports such as football, it is important to use proper blocking and tackling techniques and not to use your head for initial contact. In sports such as bicycling and roller-blading, wear a helmet. Although helmets may not prevent concussions, a well-fitted helmet is critical in preventing other injuries to the face and skull, such as lacerations and fractures.

The health consequences of a concussion may be severe if the symptoms are ignored. It is especially important to understand that receiving a second blow to the head before the first injury is fully healed can be fatal, even if the second injury seems minor.

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# Return to Play

An athlete may only return to play following adherence and successful completion of each step of the "Gradual Return to Play Following a Concussive Injury" protocol that was developed by the Fletcher Allen Health Care Concussion Task Force as indicated below:

### **Gradual Return to Play Following a Concussive Injury**

- This return to play plan should start only when you have been without any symptoms for 24 hours.
- It is important to wait for 24 hours between steps because symptoms may develop several hours after completing a step.
- Do not take any pain medications while moving through **this plan** (no ibuprofen, aspirin, Aleve, Tylenol).
- Make a follow up appointment with your provider is symptoms develop during this progression.
- Intensity levels: 1 = very easy; 10 = very hard.

Step 1: Aerobic conditioning – Walking, swimming, or stationary cycling.

- Intensity: 4 out of 10.
- Duration: no more than 30 minutes.
- If symptoms return, wait until you are symptom free for 24 hours then repeat Step 1.
- No symptoms for 24 hours, move to Step 2.

Step 2: Sports specific drills – skating drills in hockey, running drills in soccer/basketball.

- Intensity: 5 or 6 out of 10.
- Duration: no more than 60 minutes.
- No head impact activities. No scrimmages/potential for contact.
- If symptoms return, wait until you are symptom free for 24 hours than repeat Step 1.
- No symptoms for 24 hours, move to Step 3.

Step 3: Non-contact training drills – include more complex training drills (passing in soccer/ice hockey/basket-ball. Running specific pattern plays, etc).

- No head contact, or potential for body impact.
- OK to begin resistance training.
- Intensity: 7 out of 10.
- Duration: no more than 90 minutes.
- If symptoms return, wait until you are symptom free for 24 hours then repeat Step 2.
- No symptoms for 24 hours, move to Step 4.

#### Step 4: Full contact practice.

- Only after medical clearance!
- No intensity/duration restrictions.
- If symptoms return, wait until you are symptom free for 24 hours and repeat Step 3.
- No symptoms for 24 hours, move to Step 5.

Step 5: Full clearance for return to play.