

# AthletiHINTS



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## Concussion

### Introduction

Contact sports — especially football, ice hockey, soccer, boxing, lacrosse, wrestling and basketball — all carry the risk of concussion or a mild brain injury. Few symptoms of this injury are obvious and may cause the injury to go untreated, which can lead to serious consequences.

### Mechanism of Injury

There are three basic mechanisms of head injury related to sports.

1. A stationary head is hit with a forceful blow, for example a football lineman struck in the head.
2. A moving head hits a nonmoving object, such as a soccer player diving and hitting the ground or a hockey player striking his head on the ice.
3. A shearing or rotational force, such as a boxer being hit with a hook punch.

These injuries cause the brain to impact against the skull, causing a disruption of some of the cells and altering a player's awareness.

### Signs and Symptoms

The hallmark signs of a concussion are confusion and amnesia (loss of memory) with or without a preceding loss of consciousness. The loss of memory usually involves the traumatic play itself, but can include events before or after the injury, such as forgetting what team is being played, what the score is or what point it is in the game. Athletes may also find themselves frequently repeating questions that have already been answered.

Other symptoms include headache, dizziness, nausea or vomiting, slurred speech or incoordination. Coaches may notice the player

staring off into space, seeming disoriented or not being able to follow directions.

### Grading

Concussions are graded as mild, moderate or severe.

**Grade I** (mild concussion) means there was no loss of consciousness and the memory loss lasted for less than 30 minutes.

**Grade II** (moderate concussion) means there was a loss of consciousness for less than five minutes and the memory loss lasted for more than 30 minutes, but less than 24 hours.

**Grade III** (severe concussion) means there was a loss of consciousness for greater than five minutes and the memory loss was greater than 24 hours.

### Return to Play

Medical management is based on the grading scale above, as well as the trainer or physician's assessment of the situation. No athlete should return to the game as long as symptoms are present.

#### Grade I

If this is the athlete's first concussion, he/she may return to play in one week, provided the symptoms have resolved. If this is the second concussion of this magnitude, the athlete may return to play two weeks. If it is the third concussion, the season is ended.

#### Grade II

If it is the athlete's first concussion, he/she may return to play in one week, provided the symptoms

*Over*

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have resolved. If it is the second head injury, the athlete may return to play in one month. If it is the third head injury, the season is ended.

### **Grade III**

If this is the athlete's first concussion, he/she may return to play in one month provided, there are no symptoms for one week. If this is the second head injury, the season is ended.

Athletes who return to play before symptoms have cleared are at a higher risk for further and more serious injuries.