

# Homewood Flossmoor High School Sports Medicine

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## Head Injury Physician Referral

To: **Physician**

From: **Steve Szymkowiak, M.A., ATC, CSCS**  
**Brad Kleine, ATC, PES, CKTP**  
**Matt Zalewski, ATC**

\_\_\_\_\_ is a Homewood-Flossmoor High School student-athlete who is being referred to you for further evaluation.

ATC Assessment: \_\_\_\_\_

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*To be complete by physician.*

Date: \_\_\_\_\_

Physician Diagnosis: \_\_\_\_\_

Please check the desired return to play protocol:

- **Progressive Return to Play Protocol** (See opposite side for full Concussion Protocol)  
The athlete proceeds to the next step if asymptomatic. If any post concussive symptoms occur the athlete should drop back to the previous level and try to progress again after 24 hours.  
Step 1- No activity, complete rest.  
Step 2- Light aerobic exercise such as walking or stationary cycling, no resistance training.  
Step 3- Sport specific exercise/conditioning. Progressive addition of resistance training.  
Step 4- Non-contact training drills.  
Step 5- Full contact training after medical clearance.  
Step 6- Game play.

Concussion in Sport Group, Summary and Agreement Statement of the 1<sup>st</sup> International Symposium on Concussion in Sport, Prague 2004, : *Clinical Journal of Sports Medicine*, Mar 2005; 15(2): 48-57

- **Other Protocol:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Physician's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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## Concussion Protocol

### Definition of a Sport Concussion

A sport concussion is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces. A concussion may be caused by a direct or indirect blow to the head, face, neck or elsewhere on the body with an “impulsive” force transmitted to the head. Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. It may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury.<sup>1</sup>

### Signs and Symptoms of a Concussion<sup>1</sup>

*Typical symptoms* of a concussion include, but are not limited to, the following:

Headache	Balance problems or dizziness
Nausea	Feeling “dinged”, “foggy”, “stunned”, or “dazed”
Visual problems	“Having my bell rung”
Irritability or emotional changes	Ringing in the ears
Subjective feeling of slowness or fatigue	

*Cognitive symptoms* that may be noticed upon further questioning of the athlete may include:

Unaware of period, opponent, or score	Confusion
Amnesia	Loss of consciousness

*Physical symptoms* that may be observed during the evaluation may include:

Loss of consciousness	Impaired conscious state
Poor coordination or balance	Convulsive convulsion/impact seizure
Unsteady Gait	Slow to answer questions/follow direction
Easily distracted/poor concentration	Unusually emotional/Irritable
Nausea/vomiting	Vacant Stare/Glassy eyed
Slurred speech	Personality Changes
Inappropriate playing behavior	Decreased playing ability

### Concussion Classification<sup>2</sup>

**Simple Concussion-** In simple concussion, an athlete suffers an injury that progressively resolves without complication over 7-10 days. In such cases, apart from limiting playing or training while symptomatic, no further intervention is required during the period of recovery and the athlete typically resumes sport without further problem. Simple concussion represents the most common form of this injury and can be appropriately managed by primary care physicians or by certified athletic trainers working under medical supervision. The cornerstone is rest until all symptoms resolve and then a graded program of exertion before return to sport.

**Complex Concussion-** Complex concussion encompasses cases where athletes suffer persistent symptoms (including persistent symptom recurrence with exertion), specific sequelae (convulsive convulsions, prolonged loss of consciousness) or prolonged cognitive impairment following the injury. This group may also include athletes who suffer multiple concussions over time or where repeated concussions occur with progressively less impact. Formal neuropsychological testing and other investigations should be considered in complex concussions. It is envisaged that such athletes would be managed in a multidisciplinary manner by physicians with specific expertise in the management of concussive injury such as a sport medicine doctor with experience in concussion, sports neurologist or neurosurgeon.

### Return to Play

In concerning return to play, the primary concern is always for the safety of the athlete. The athlete must be asymptomatic (have no symptoms) before returning to competition. If the athlete has sustained multiple concussions or if the concussion is more severe a period of time of being asymptomatic must pass to ensure a safe return. During this period of recovery in the first few days following an injury, it is important to emphasize to the athlete that physical and cognitive rest is required. Activities that require concentration and attention may exacerbate the symptoms and, as a result, delay recovery.<sup>2</sup>

**Return to Play Protocol<sup>2</sup>** (*The athlete proceeds to the next step if asymptomatic. If any post concussive symptoms occur the athlete should drop back to the previous level and try to progress again after 24 hours.*)

- Step 1- No activity, complete rest.
- Step 2- Light aerobic exercise such as walking or stationary cycling, no resistance training.
- Step 3- Sport specific exercise/conditioning. Progressive addition of resistance training.
- Step 4- Non-contact training drills.
- Step 5- Full contact training after medical clearance.
- Step 6- Game play.

1. Concussion in Sport Group, Summary and Agreement Statement of the 1<sup>st</sup> International Symposium on Concussion in Sport, Vienna 2001, *Clinical Journal of Sports Medicine*, 2002 12:6-11

2. Concussion in Sport Group, Summary and Agreement Statement of the 1<sup>st</sup> International Symposium on Concussion in Sport, Prague 2004, : *Clinical Journal of Sports Medicine*, Mar 2005; 15(2): 48-57