

# Concussion Reference Guide

## Signs and Symptoms:

### Signs and Symptoms that often develop early after injury

Signs observed by the coaching/medical staff

- appears to be dazed or stunned
- is confused about assignment
- forgets plays
- is unsure of game, score, or opponent
- moves clumsily
- answers questions slowly
- loses consciousness (even temporarily)
- shows behavior or personality change
- forgets events prior to hit (retrograde)
- forgets events after hit (anterograde)

Symptoms reported by the athlete

- headache
- nausea
- balance problems or dizziness double or fuzzy vision
- sensitivity to light or noise
- feeling sluggish
- feeling "foggy"
- change in sleep pattern
- concentration or memory problems

## Diagnosis & On-field Cognitive Testing:

### Orientation

**Ask the athlete the following questions.**

What stadium is this?      What city is this?  
Who is the opposing team?      What day/ month is it?

### Anterograde amnesia

**Ask the athlete to repeat the following words.**

Girl, dog, green

### Concentration

**Ask the athlete to do the following.**

Repeat the days of the week backward (starting with today).

Repeat these numbers backward:

63 (36 is correct)      419 (914 is correct)

### Retrograde amnesia

**Ask the athlete the following questions.**

What happened in the prior quarter/period?  
What do you remember just prior to the hit?  
What was the score of the game prior to the hit?  
Do you remember the hit?

### Word list memory

**Ask the athlete to repeat the three words from earlier. (Girl, dog, green)**

**Any failure should be considered abnormal. Consult a physician following a suspected concussion.**

## Return-to-play Guidelines:

### Vienna Concussion Conference Recommendations: Athletes should complete the following step-wise process prior to return to play following concussion.

1. **Removal from contest following any signs/symptoms of concussion.**
2. **No return to play in current game**
3. **Medical evaluation following injury**
  - e. Rule out more serious intracranial pathology
  - f. Neuropsychological Testing considered "cornerstone" or proper post-injury assessment
4. **Stepwise return to play**
  - a. No activity - rest until asymptomatic
  - b. Light aerobic exercise
  - a. Sport-specific training
  - b. Non-contact drills
  - c. Full-contact drills
  - d. Game play

## Treatment:

### The goal of treatment is to allow the brain injury to heal. Concussions are treated differently depending on their level of severity. Treatment may include:

- **Rest**  
Provide adequate time for recovery. Do not rush back into daily activities for work or school.
- **Preventing re-injury**  
Avoid activities that might jolt or jar your head. Never return to a sports activity until your doctor has given you clearance. Ask when it's safe to drive a car, ride a bike, work or play at heights, or use heavy equipment.
- **Observation by a responsible adult**  
Ask someone to awaken you every few hours as advised by your doctor. The doctor will explain how to watch for complications such as bleeding in the brain.
- **Limiting exposure to drugs**  
Do not take medicines without your doctor's permission. This is especially true for aspirin, blood thinners, and drugs that cause drowsiness. Avoid use of alcohol and illicit drugs.
- **Consult with a Credentialed HeadSmart Doctor for a full recovery**