Concussion Facts
Coaches

What is a concussion?

When an athlete gets their "bell rung" or gets "lit up" they have suffered a concussion. A concussion is a type of *traumatic brain injury (TBI)* caused by a bump, blow, hit, or jolt to the head or body that moves the head and brain rapidly back and forth. This sudden movement can cause the brain to bounce or twist inside the skull, sometimes stretching and damaging brain cells and creating chemical changes in the brain. The effects of a concussion can be serious and should be treated as such. The brain continues to grow and develop into the mid-twenties; disruptions to that development from a TBI in childhood or adolescence can have long-term consequences on the brain's functioning.

When an athlete takes a hit

If you suspect an athlete has sustained a concussion, **immediately** remove them from play. Do **not** allow the athlete to return to play on the same day as the injury (unless the athlete is evaluated by a licensed health care professional who provides *written* clearance allowing same-day return to play). Record the time and circumstances of the injury, along with any concussion signs/symptoms you observe or the athlete reports to you, and provide this information to the medical team.

WHEN IN DOUBT, SIT THEM OUT

The brain needs time to heal after a concussion. An athlete who continues to play or who returns to play too soon - before the brain has finished healing - has a greater chance of getting another concussion. **A repeat concussion that occurs while the brain is still healing can be very serious and can affect an athlete for a lifetime. It can even be fatal.**

MYTH: A concussion always causes you to lose consciousness (pass out).

FACT: Most concussions don't cause you to pass out. In fact, concussion **symptoms may not appear for hours or days after the hit.**

SIGNS AND SYMPTOMS

There are many signs and symptoms of a concussion. **Concussion symptoms may appear minutes, hours, or days after the initial injury.** Symptoms may be physical, emotional, behavioral, or cognitive (affect thinking). You may observe these signs in an athlete or the athlete may report symptoms to you.

Physical

- Headache or pressure in the head
- Dizziness, balance problems
- Nausea or vomiting
- Sensitivity to noise, ringing in ears
- Sensitivity to light, blurry or double vision
- Feels tired
- Tingling
- Does not "feel right"
- Seems dazed, stunned

Emotional/Behavioral

- Becomes irritable
- Becomes sad or depressed
- More emotional than usual
- Anxious or nervous
- Personality or behavioral changes, such as becoming impulsive

Cognitive

- Trouble thinking clearly
- Trouble concentrating
- Trouble remembering, can't recall events before or after the hit
- Feels sluggish, hazy, foggy, or groggy
- Feels "slowed down"
- Repeats questions or answers questions more slowly
- Confusion
- Forgets routine things

DANGER SIGNS

If one or more of these signs emerges after a hit to the head or body, **IMMEDIATELY** call 911 or tell the parent/caregiver to take the athlete to the nearest emergency room.

- One pupil larger than the other
- Drowsy or cannot wake up
- Headache that gets worse and does not go away
- Slurred speech, weakness, numbness
- Decreased coordination
- Loss of consciousness
- Repeated vomiting or ongoing nausea
- Shaking or twitching (convulsions or seizures)
- Unusual behavior, increased confusion, restlessness, or agitation

Learn more: concussion.health.ok.gov | 405.271.3430

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OKLAHOMA State Department of Health

RETURN TO PLAY:
BACK TO SPORTS AFTER A CONCUSSION

Before you begin:

An athlete's progression through the return to play protocol should be monitored by a designated return to play case manager, such as a coach, athletic trainer, or school nurse.

Each step should take a *minimum* of 24 hours; it should take at least one week to proceed through the full return to play protocol. This process can take several weeks or months, depending on the individual and the injury.

If concussion symptoms return at any step during the return to play process, the protocol must be stopped. The athlete may only resume return to play activities when they have been symptom-free for a *minimum* of 24 hours. Return to play progression must resume at the step *before* symptoms reemerged.

*Example: An athlete going through return to play protocol has progressed to Step 5 (practice and contact) when concussion symptoms return. Return to play activities must be halted until the symptoms stop and remain absent for at least 24 hours. At that point, the return to play protocol resumes; **however**, the athlete restarts at Step 4 (heavy non-contact activity), the step **before** concussion symptoms reemerged.*

WHEN IN DOUBT, SIT THEM OUT

Athletes should not begin the return to play protocol on the same day of the injury. A licensed health care professional must evaluate the athlete and provide written clearance for the athlete to return to activity. Continuing to play, or returning to play too soon, after a concussion increases the chances of sustaining another concussion. A repeat concussion that occurs while the brain is still healing from the first injury can be very serious and can affect an athlete for a lifetime.
It can even be fatal.

RETURN TO PLAY PROTOCOL

STEP 1:
BACK TO REGULAR ACTIVITIES

Goal: Complete normal activities and remain symptom-free for at least 24 hours

STEP 2:
LIGHT AEROBIC ACTIVITY

Goal: Minimal increase in heart rate
Time: 5-10 minutes
Feels easy: walking ≤ 2 mph, stretching exercises
NO weight lifting, resistance training, jumping, or hard running.

STEP 3:
MODERATE ACTIVITY

Goal: Noticeable increase in heart and respiratory rates with limited body and head movement
Time: Less time than typical routine
Feels fairly easy to somewhat hard: brisk walking (15 min/mile)
NO head impact activities. **NO** helmet or other equipment use.

STEP 4:
HEAVY NON-CONTACT ACTIVITY

Goal: High-intensity activity without contact
Time: Close to typical routine
Non-contact training drills in full uniform, weight lifting, resistance training, running, high-intensity stationary cycling.

STEP 5:
PRACTICE AND CONTACT

Goal: Return to practice, full contact as applicable to sport

STEP 6:
RETURN TO PLAY

Goal: Return to full game play, practice, and competition

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RETURN TO LEARN PROTOCOL
OVERVIEW

Every student will experience a concussion differently. One student may spend an extended time in one return to learn phase, while another may not need a particular phase at all.

PHASE 1

No school
A licensed health care provider should provide written clearance for a student to return to school after a concussion. A concussion management team should be assembled and begin to develop a plan for the student.

PHASE 2

Half-day attendance with accommodations
The concussion management team leader should meet with the student and their parents to review information from the health care provider (e.g., current symptoms and recommended accommodations), concussion management team member roles and responsibilities, and the initial concussion management plan.

PHASE 3

Full-day attendance with accommodations
Monitor the student for worsening or reemerging symptoms during class. The concussion management team should be communicating on a regular basis to evaluate progress and collaborating to revise the concussion management plan as needed based on any changes in symptoms or symptom severity.

PHASE 4

Full-day attendance without symptoms
When the student can participate in all classes and has been symptom-free for at least 24 hours, they may begin the return to play protocol for physical activities at school (e.g., gym, PE classes, athletics participation).

PHASE 5

Full school and extracurricular involvement
For most students, accommodations for concussion recovery are temporary and informal. When recovery is prolonged, however, formal support services (e.g., an individualized education plan, a response to intervention protocol, or 504 plan) may be needed to support the student.

To learn more about supporting students returning to learn after a concussion, visit https://concussion.health.ok.gov

Contact us: concussion@health.ok.gov | 405.271.3430

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RETURN TO LEARN:
BACK TO CLASS AFTER A CONCUSSION

WHAT IS A CONCUSSION & HOW CAN IT IMPACT LEARNING?

A concussion is a type of traumatic brain injury (TBI) caused by a bump, blow, or jolt to the head or body that moves the head and brain rapidly back and forth, causing the brain to bounce or twist in the skull. Concussion symptoms can impact a student physically, cognitively, and emotionally. These symptoms may disrupt the student's ability to learn, concentrate, keep track of assignments, process and retain new information, tolerate light and noise, and appropriately regulate emotions and behaviors. School professionals play a vital role in creating a culture that values safety and open communication, encourages students to report symptoms, and supports students throughout the process of recovery. Teachers and other school staff can provide symptom-based classroom accommodations while the student's brain continues to heal from the concussion. Supports can be lifted as the brain heals and concussion symptoms no longer keep the student from full classroom participation.

After a concussion, it is as important to rest the brain as it is the body. Students will need an initial break, usually 2 to 3 days, from cognitive activities such as problem solving, concentrating or heavy thinking, learning new things, memorizing, reading, texting, computer or mobile device time, video games, and watching television. Upon clearance from their health care provider, students can gradually return to learning activities.

Providing appropriate support for a student returning to school after a concussion requires a collaborative team approach. Teachers, school counselors, school nurses, school administration, parents/guardians, the student, and the student's health care provider are examples of these team members. Continuous communication between students, caregivers, health care providers, and school staff is vital to ensure the student's individual needs are understood and consistently met by their support team throughout recovery.

CONCUSSION SIGNS TO WATCH FOR IN THE CLASSROOM

- Increased problems paying attention or concentrating
- Increased problems remembering or learning new information
- Longer time needed to complete tasks or assignments
- Difficulty organizing tasks or shifting between tasks
- Inappropriate or impulsive behavior during class
- Greater irritability or more emotional than usual
- Less ability to cope with stress
- Difficulties handling a stimulating school environment (lights, noise, etc.)
- Physical symptoms (headache, fatigue, nausea, dizziness)

EXAMPLES OF SCHOOL SUPPORTS BASED ON CONCUSSION SYMPTOMS

- Reduce assignments and homework to key tasks only and base grades on adjusted work.
- Provide extra time to work on assignments and take tests.
- Provide written instructions, study guides, and/or help for classwork.
- Limit tests to one per day.
- Allow students to demonstrate understanding of a concept orally instead of in writing.
- Provide class notes and/or allow students to use a computer or tape recorder to record classroom information.

- Allow time to visit the school nurse for treatment of headaches or other symptoms.
- Provide rest breaks.
- Provide extra time to go from class to class to avoid crowds.
- If students are bothered by light, allow sunglasses, blue light blocking glasses, or sitting in a less bright location (e.g., draw blinds, sit them away from windows).
- If students are bothered by noise, provide noise-reducing headphones and a quiet place to study, test, or spend lunch or recess.
- Do not substitute concentration activities for physical activity (e.g., do not assign reading instead of PE).

- Develop an emotional support plan (e.g., identify an adult with whom they can talk if feeling overwhelmed).
- Locate a quiet place students can go when feeling overwhelmed.
- Students may benefit from continued involvement in certain extracurricular activities, such as organizational or academic clubs, as approved by their health care provider.
- Arrange preferential seating, such as moving the student away from windows (e.g., bright light) or talkative peers, or closer to the teacher.

Provide structure and consistency; make sure all teachers are using the same strategies.