



Concussion Management Team (CMT) Protocols and Information Packet

Mild Traumatic Brain Injury and Concussion: An Overview

According to the Centers for Disease Control and Prevention (CDC), about 75% of traumatic brain injuries (TBI) that occur each year are concussions or “mild” TBIs. These are injuries to the brain and need to be **taken seriously**. This brief will provide an overview of mild TBI/concussion.

What is a mild TBI/concussion?

A mild TBI/concussion is caused by a bump, blow, or jolt to the head that changes brain function and includes at least one of the following:

- Any change in mental state at the time of injury
- Any loss of memory for events just before or after the injury
- Neurological changes that may or may not be temporary
- Brain lesion (bruising or bleeding in the brain seen on a CT or MRI scan)
- A period of unconsciousness (not exceeding 30 minutes)

What are the symptoms of mild TBI/concussion?

Symptoms of mild TBI/concussion may appear immediately after the injury or may not appear until days or weeks after the injury. The list below includes some of the most common symptoms. Individuals are unlikely to experience all of these symptoms.

Physical Symptoms	Cognitive Symptoms	Emotional-Behavioral Symptoms
Dizziness	Feeling dazed or in a fog	Irritability
Weakness	Disorientation	Quick to anger
Change in balance	Confusion	Decreased motivation
Headaches	Difficulty concentrating	Anxiety
Changes in vision	Slowed information processing	Depression
Changes in hearing	Difficulty juggling multiple tasks	Withdrawal
Sleep disturbance/fatigue	Difficulty with memory	
	Difficulty learning new information	

What are the potential risks?

Ongoing Post-concussive Symptoms

Although most individuals recover fully from mild TBI/concussion, some individuals experience symptoms lasting three months or longer.

Brain at Risk

In the first days to weeks after a mild TBI/concussion, the brain is very sensitive. During this time, there is a greater chance of having a second mild TBI/concussion.

Catastrophic Outcomes

Life-threatening medical problems after mild TBI/concussion are extremely rare but do occur. The most frequent cause of these problems is acute bleeding in the brain.

What is the best approach to managing symptoms/risks?

Immediately Following Injury

- **Medical Attention:** Seek medical attention from a healthcare professional knowledgeable about TBI.
- **Time Out:** Rest immediately following injury. Returning to regular activity too soon, while the brain is still healing, puts you at greater risk of having a second mild TBI/concussion. Follow the advice of your healthcare professional for when to resume normal activities, including work, school, driving, sports, and other recreational activities.
- **Education:** For more information about mild TBI/concussion or questions about specific issues, contact www.cbirt.org/ask-librarian.
- **Management Strategies:** Limit exposure to noise, bright lights, stimulating music, and distractions. Reduce “screen time”: TV, video games, and computer activities. Limit scheduled activities; consider shortening work or school days; reduce work load.

If Symptoms Persist

Your healthcare professional may suggest further assessment and treatment. In some cases, a comprehensive treatment program is recommended. The program may include:

- **Medical Treatment:** Symptom-specific treatments include pain medications for headaches and/or physical therapy.
- **Cognitive Rehabilitation:** Training in the use of compensatory tools and strategies help manage cognitive symptoms post-injury.
- **Counseling & Support:** Structured programs help manage the emotional response to mild TBI/concussion. Support groups can also be helpful.

Gradual Return to Activity Plan

A healthcare professional with training in the management of concussion will recommend COGNITIVE AND PHYSICAL rest. Both are needed for the brain to heal. Typically, in the first few days following a concussion, complete cognitive and physical rest are needed.

Every concussion is different. A few students will be ready to return to school immediately. Most students, however, will need two to three days of complete rest before returning to school. For some reason, a longer rest period is required for symptoms to improve.

As symptoms begin to improve, students will return full time to school. However, learning accommodations will be necessary until all symptoms clear. Teachers can assist healing by canceling homework and reducing or dismissing assignments during this period. This is not like the flu, where students can complete schoolwork while at home. Students need a break, not just postponement, during this critical time.

The Concussion Management Team (CMT) will develop a Gradual Return to Activity Plan, a stepped progression of increased activity over time as symptoms subside. Because the healing process is not linear or predictable, the Concussion Management Team will closely monitor and communicate progress.

To ensure successful return to activity, a designee on the CMT will facilitate regular and ongoing communication among the student, teachers, parents, and, if applicable, coaches, administration, and athletic director.

A successful Gradual Return to Activity Plan has two parts:

1. **Return to Academics:** A gradual return to school and academic requirements implemented by the CMT.
 - A Return to Academics Progression (Sample) is included in this packet.
2. **Return to Play:** A gradual return to sports implemented by the athletic staff.
 - Athletes must be cleared for a return to sports by a healthcare professional. A medical professional should use the OSAA Concussion – Return to Participation Medical Release form included in this packet. More information is available at www.osaa.org.

The Return to Activity Plan is a medical decision with input from all members of the Concussion Management Team (CMT).

Members of the CMT may include but are not limited to: student, parent(s), teachers, counselor, building administrator, coach, athletic director, athletic trainer, healthcare professional.

The Return to Activity Plan is a medical prescription.

When symptoms continue beyond three to four weeks, prolonged in-school supports are required. Request a 504 meeting to plan and coordinate student supports.

Common Questions:

How often should we convene the Concussion Management team?

Anytime the school is made aware of a student sustaining a mild TBI/concussion, the CMT should convene and develop a Gradual Return to Activity Plan. Remember that this has two parts and that each concussion is different.

What if the student is not having any symptoms and is keeping up with school work?

Each mild TBI/concussion is different. Students may progress through all six steps quickly, providing there is not a worsening of symptom. This should still be monitored by the CMT.

What happens if a student falls behind academically because of a mild TBI/concussion?

The CMT will monitor the academic progress of the student and make sure the appropriate accommodations have been implemented. It may be necessary to give partial credit for a class requiring work that cannot be completed during the injury, e.g., weightlifting, PE, etc. Retaking a class or schedule modifications may also be required. When symptoms continue beyond three to four weeks, prolonged in-school supports are required. The CMT may recommend or request a 504 meeting to plan and coordinate student supports.

Does a healthcare professional have to be a part of the CMT?

No. Financial hardships or lack of insurance may prevent a student or family from receiving a medical diagnosis. In such cases, the CMT should still convene and develop a Gradual Return to Activity Plan. The Dallas School District Nurse may need to be consulted to be a part of the team if that position is funded by the district.



Oregon School Activities Association
25200 SW Parkway Avenue, Suite 1
Wilsonville, OR 97070

503.682.6722 FAX 503.682.0960 www.osaa.org

CONCUSSION – RETURN TO PARTICIPATION MEDICAL RELEASE

Student Name: _____ Date of Birth: ___/___/___ School/Grade: _____

Date of Injury: ___/___/___ Sport/ Injury Details: _____

At this time, the student is: symptom-free at rest NOT symptom-free at rest
 symptom-free at exertion NOT symptom-free at exertion
 scoring within a normal range on IMPACT NOT scoring within a normal range on IMPACT

When IMPACT is utilized, please either attach or allow access to baseline and post concussive scores with percentiles.

Comments: _____

Completed by (Printed name): _____ Signature: _____ Date: _____

Registered Athletic Trainer Coach Athletic Director Other: _____

Graduated, Step-wise Return-to-Participation Progression

- No activity:** Complete rest, both physical and cognitive. This may include staying home from school or limiting school hours and/or homework as activities requiring concentration and attention may worsen symptoms and delay recovery.
- Light aerobic exercise:** Walking or stationary bike at low intensity; no weight lifting or resistance training.

Before progressing to the next stage the student must be healthy enough to return to school full time

- Sport-specific exercise:** Sprinting, dribbling basketball or soccer; no helmet or equipment, no head impact activities.
- Non-contact training:** More complex drills in full equipment. Weight training or resistance training may begin.
- Full contact practice:** Participate in normal training activities.
- Unrestricted Return-to-Participation/full competition.** (Earliest Date of Return-to-Participation: _____)

The student should spend a minimum of one day at each step. If symptoms re-occur, the student must stop the activity and contact their trainer or other health care professional. Depending upon the specific type and severity of the symptoms, the student may be told to rest for 24 hours and then resume activity one-step below where he or she was when the symptoms occurred. Graduated return applies to all activities including sports and PE classes.

This section to be completed by Physician/Health Care Professional:

- Student **may NOT return** to any sport activity until medically cleared.
- Student should remain home from school to rest and recover with a projected return date _____
- Please allow classroom accommodations, such as extra time on tests, a quiet room to take tests, and a reduced workload when possible.

Additional Recommendations: _____

Student may begin graduated return at stage circled above. If symptom free at rest and with graded exertion, can return to participation on date above.

Student is now cleared for full contact practice/participation: symptom free at rest and exertion and has completed a graduated Return-to-Participation protocol.

Physician/Health Care Professional Signature: _____ Date: _____

Physician/Health Care Professional Name/Title: _____ Phone: _____

Per OAR 581-022-0421 "Health Care Professional" means a Physician (MD), Physician's Assistant (PA), Doctor of Osteopathic (DO) licensed by the Oregon State Board of Medicine, nurse practitioner licensed by the Oregon State Board of Nursing, or Psychologist licensed by the Oregon Board of Psychologist Examiners."



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The Oregon School Activities Associations' (OSAA) Medical Aspects in Sports Committee has developed a physician release form for students to return to participation following a concussion. The committee reviewed extensively the literature available on concussions in sport. No definitive data exists that allow us to absolutely predict when a student with a concussion can safely return to participation. We have found significant differences that exist among physicians relating to when they will permit a student to return to participation after having a concussion.

Neither the OSAA nor the Medical Aspects in Sports Committee presumes to dictate to professionals how to practice medicine. Neither is the information on this form meant to establish a standard of care. The committee does feel, however, that the guidelines included on the form represent a summary consensus of the literature. The committee also feels that the components of the form are very relevant to addressing the concerns of coaches, parents, students, and physicians that lead to the research into this subject and to the development of this form.

GOALS FOR ESTABLISHING A WIDELY USED FORM:

1. Protect students from further harm. Young students appear to be particularly vulnerable to the effects of concussion. They are more likely than older students to experience problems after concussion and often take longer to recover. Teenagers also appear to be more prone to a second injury to the brain that occurs while the brain is still healing from an initial concussion. This second impact can result in long-term impairment or even death. The importance of proper recognition and management of concussed young students cannot be over-emphasized.
2. Allow students to participate as soon as it is reasonably safe for them to do so.
3. Establish guidelines to help minimize major differences in management among physicians who are signing "return to competition forms". Consistent use of these guidelines should minimize students from returning to participation too soon and protect them from inequalities as to who can or cannot participate.
4. Provide a basis to support physician decisions on when an student can or cannot participate. This should help the physician who may face incredible pressure from many fronts to return a student to competition ASAP. This can involve "Joe Blow who rides the bench" or the next state champion with a scholarship pending.

IMPORTANT COMPONENTS FOR AN EFFECTIVE FORM:

1. Inclusion of the latest consensus statements so physicians will understand that students must be symptom free at rest and exertion and complete a graduated return to participation. Returning students at an arbitrary date is not an option.
2. Inclusion of the date and nature of injury as well as earliest date to return to participation to minimize the need for a family to incur the expense of additional office visits to return for clearance after completing a graduated return to participation.
3. Inclusion of consensus statements and return to participation progression before returning the student to participation as discussed above. This should enhance the likelihood that all students are managed safely and fairly.
4. Inclusion of all of the components discussed has the potential to remove liability from a school making a medical decision. If a return to participation is questioned, the school's role could appropriately be only to see if the student can provide a fully completed medical release form allowing the student to return to participation.

Note to Physicians/Health Care Professionals: Please familiarize yourself with the "Summary and Agreement Statements of International Conferences on Concussion in Sport", from Vienna in 2001, Prague in 2004, and Zurich in 2008. These documents summarize the most current research and treatment techniques in head injuries. The most noteworthy items to come from these conferences are the discontinuation of initial symptom based grading scales and the addition of standardized return to participation guidelines.

Note: ImPACT stands for Immediate Post-Concussion Assessment and Cognitive Test. It is sophisticated software developed to help sports-medicine clinicians evaluate recovery following concussion. ImPACT evaluates multiple aspects of neurocognitive functioning including memory, brain processing speed, reaction time, and post-concussive symptoms. For information on implementing a baseline-testing program, contact the Oregon Concussion Awareness & Management Program (OCAMP) at

Note: In 1990, the AMA recognized the certified athletic trainer as an allied health care professional. In 1998, a resolution passed urging all schools to provide the services of a certified athletic trainer for student-athletes (AMA Resolution 431, A-97). For more information on athletic trainers, contact Oregon Athletic Trainers' Society via their website: www.oatswebsite.org.

This form may be reproduced, if desired. In addition, the OSAA Medical Aspects in Sports Committee would welcome comments for inclusion in future versions, as this will continue to be a work in progress.