

## Sports Medicine

# Concussion Education

### What is a concussion?

A concussion is a common, yet mild traumatic brain injury resulting from a force or impact to the head.

Examples of such forces include:

- Head to Head
- Head to Ground
- Head to Object (ball, puck, etc.)
- Head to Body

### Signs and symptoms

#### Parents/coaches notice the athlete:

- Appears dazed or stunned
- Is confused about position
- Forgets an instruction
- Is unsure of game, score, etc.
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

#### Athlete complains of:

- Headache or "pressure" in head
- Nausea or vomiting
- Concentration / memory problems
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise
- Feeling sluggish, hazy, foggy, or groggy
- Confusion
- Does not "feel right"

### Home Care

- **No same day return to play.**
- Graduated return to play.
- Rest. This includes mental and physical rest.
- But should be woken every two hours to re-evaluate their condition
- Do not let the athlete drive home
- Ice any painful area
- Do not go home alone
- **Do not take any medication that thins the blood (ie. Aspirin, Ibuprofen, Aleve)**
- Only Tylenol is *OK*

### When to go to the Emergency Room?

- Loss of consciousness
- Trouble maintaining balance
- New symptoms arrive or become worse
- If athlete requests a doctor visit
- If repeated vomiting occurs

## Sports Medicine

# Services for persons with Concussion

### Occupational therapists (OT) help with:

*Amy Fielder, OTR/L*

- Vision problems
- Fatigue management and pacing
- Assisting with return to school/work

### Physical therapists (PT) help with:

*Jennifer Wilhelm, PT, DPT*

*Jeff Schlimgen, MSPT*

*Marvin Smith, PT, DPT*

*Kitty Leelaamornvichet, PT, DPT*

- Balance and dizziness
- Coordination
- Pain management
- Assisting with return to sport

### Speech and Language Pathologists (SLP) help with:

*Jennifer Clemens, MS, CCC- SLP*

- Communication: Finding the right words, organizing your thoughts, etc.
- Memory, attention, speed of information processing, and problem solving
- Assisting with return to school/work

### Athletic Trainers (ATC) help with:

*Juliet Baker, MS, ATC, CSCS*

*Ryan Rockwood, ATC*

*Colby Higginbotham, MS, ATC*

*Noelle Ritter, ATC, CSCS, MES*

- Return to sport

### Physicians help with:

*Jim Chesnutt, M.D.*

*Ryan Petering, M.D.*

*Charles Webb, D.O.*

- Concussion evaluation and management

**Sports Medicine: 503-494-4000**

**Rehabilitation Services: 503-494-3151**

## Sports Medicine

# OHSU Sports Medicine & Rehabilitation

### Who we are:

OHSU Sports Medicine and Rehabilitation is a team of healthcare professionals, including: Doctors, Physical Therapists, and Athletic Trainers. Injuries are an unfortunate, but common part of athletics. Our team works together with athletes, coaches, and parents to help athletes manage injuries and return to their sport in a safe manner.

### Services we offer:

**Injury Evaluations:** If you have sustained an injury and are unsure what to do about it, we want to see you. A Certified Athletic Trainer is available to evaluate your injury and help develop a plan of care. This occurs at our OHSU clinic. Sessions are thirty minutes long and cost a flat rate of \$30.

**ImPACT Testing:** This is a computer-based neurocognitive test designed to evaluate concussions. A concussion is a common, yet mild traumatic brain injury resulting from a force or impact to the head. This is an under diagnosed injury that can potentially lead to serious consequences down the road if not managed properly. This test helps healthcare professionals make better decisions regarding concussion management. We are available to test athletes on an individual basis at OHSU or to administer multiple tests for a team at your school.

### High School Athletic Event Medical Coverage:

Often times, we are seen on the sidelines of an athletic event. During these events our role is to facilitate the health and safety of the athletes. Our team of skilled Athletic Trainers are available to provide this coverage to you.

### How to contact us:

The easiest way to reach us is by calling our Sports Medicine Hotline: **503-494-4000**.

By calling this number, you may schedule appointments with a sports medicine doctor, injury evaluations by an Athletic Trainer, or inquire about ImPACT testing.

For more information about high school athletic event coverage, please contact Sean Coster via email: **coster@ohsu.edu**

OHSU Sports Medicine & Rehabilitation  
3303 SW Bond Ave  
Portland OR, 97239

## Sports Medicine

# ImPACT Testing

### What is it?

The ImPACT test is a computer-based neurocognitive test that is designed to evaluate concussions. This test helps doctors and athletic trainers make decisions about concussion management by testing the following areas:

- Attention
- Memory
- Problem solving
- Reaction time

### How does it work?

Many experts advise athletes involved in sports with a risk of head trauma (i.e. football and soccer) to take a pre-participation baseline test. The results are saved so that if an athlete sustains a head injury, a post-injury test can be taken to compare to the baseline. This allows health care professionals to compare post-injury results to the baseline test for an individual athlete.

***The end result is a more accurate evaluation and better return to play decisions.***

### How do I take the test?

ImPACT testing is a service we offer through OHSU Sports Medicine and Rehabilitation.

We offer:

- Post concussive exams by ImPACT trained physician (*depending on personal insurance*)
- Individual baseline testing at our OHSU clinic (\$40)
- Individual post-injury testing at our OHSU clinic (\$40)
  - o Schools or teams may purchase the testing software and a certain number of baseline and post-injury tests
  - o An OHSU representative is available to administer the test (*pricing depends on number of tests*)

If any athlete, coach, or parent feels the need to be tested, or is interested in the ImPACT test, please contact OHSU Sports Medicine and Rehabilitation at 503-494-4000. Please state that you are interested in ImPACT testing and you will be directed appropriately. We are located at:

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3303 SW Bond Ave  
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# Return to Play Guidelines for Sports

**STEP 1:**

Rest until asymptomatic (physical and mental rest)

Goal: Recovery

**STEP 2:**

Light aerobic exercise (stationary cycle, walking, swimming); Heart rate < 70% max.  
No resistance training

Goal: Increased heart rate

**STEP 3:**

Sport specific training (wind sprints, cutting drills, up-downs, bear crawls, pushups, crunches, etc.)

Goal: Dynamic movement

**STEP 4:**

Non-contact training drills (full practice with shells NO CONTACT). Begin progressive resistance training

Goal: Exercise, coordination, and dual task with cognitive load

**STEP 5:**

Full contact training after medical clearance by MD

Goal: Increase/restore confidence, coaches can assess functional level

**STEP 6:**

Return to competition

*There should be approximately 24 hours (or longer) for each step and the athlete should return to step 1 if symptoms recur. Resistance training should only be added in the later steps (4-6) of program. Medical clearance should be given before return to full contact practice: Step 5.*

## Sports Medicine

# Return to School Guidelines for Sports Concussions

*Often students return to school with subtle cognitive, academic, or behavioral needs following concussion. If these are addressed early on it can alleviate long-term difficulties. Here are guidelines for when a student returns to school after a concussion or mild brain injury.*

### Inform school staff

For information about concussion/mild brain injury:  
<http://www.cdc.gov/ncipc/tbi/default.htm>

### Monitor student: watch for any of the possible red flags associated with concussion/mild brain injury

#### Cognitive difficulties:

- Trouble paying attention
- Difficulty remaining on task
- Slowed responses and or processing of information
- Difficulty shifting attention from task to task
- Organization challenges
- Reduced academic performance

#### Social behavior difficulties:

- Impulsive behaviors
- Initiation difficulties (trouble starting things)
- Changes in mood
- Depression
- Defiance
- Fatigue
- Confusion

#### Physical difficulties:

- Headaches
- Blurred vision
- Changes in taste or smell

### Provide accommodations

If red flags appear, teachers can provide minimal accommodations on a temporary basis until symptoms subside (usually within 3-4 weeks).

Accommodations might include:

- Reduced assignment load
- Increased time to complete assignments or exams
- Use of an organizer to track assignments
- Rest periods during the day
- Directions in both oral and written formats
- Clear expectations
- Large tasks broken into smaller components

If the student continues to have academic difficulty after a month, the student's concerns should be further evaluated by a team and the evaluation process for more formalized support such as a 504 plan or IEP begun.

### Communicate with the family

Stay in regular communication about changes noticed at school and at home. For more information or assistance about concussion/brain injury, contact Pat Sublette at **541 346-0597** or the Oregon TBI Consulting Team at: <http://www.tr.wou.edu/team>