



## CONCUSSION

- **What is a Concussion?**
  - A concussion is a type of traumatic brain injury that alters brain function.
  - This injury is the result of rapid translational or rotational movement of the brain within the skull.
  - Signs and symptoms of a concussion usually appear immediately after injury, but in some cases may take hours or days post-injury to develop.
  - The majority of concussions resolve in a short period (7-10 days), though some concussions may take longer.
  
- **Signs & Symptoms**
  - The following signs and symptoms observed or reported after a witnessed or suspected blow to the head or body are indicative of a probable concussion.

Signs (observed by others)	Symptoms (reported by athlete)	
Athlete appears dazed or stunned	Headache	Feels “foggy”, trouble thinking clearly
Confusion	Pressure in head	Difficulty concentrating
Forgets Plays	Neck pain	Difficulty remembering
Unsure about game, score, opponent	Numbness/tingling	Drowsiness
Moves clumsily (altered coordination)	Fatigue	Difficulty sleeping
Balance Problems	Dizziness	Sadness
Personality/Mood Changes	Nausea or vomiting	Nervousness/ anxiousness
Responds Slowly to Questions	Sensitive to light or noise	Irritability
Can’t recall events prior to hit	Double vision	Feeling more emotional
Can’t recall events after hit	Ringling in ears	Feels sluggish/slowed down
Loss of Consciousness (any duration)		



- What to do if a Concussion is Suspected

- RECOGNIZE, REMOVE, REFER

- Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion should be removed from the contest or practice (“activity”) and shall not return until cleared by an appropriately trained healthcare professional, per Max’s Law (OAR 581-022-0421).
    - If an athletic trainer (ATC) is unavailable to evaluate the athlete, the coach is responsible for immediately notifying the athlete’s parents of the injury and advising them to consult an appropriate health care professional on the day of the injury.
    - Health care professionals qualified to **EVALUATE** an athlete with a concussion: **Certified Athletic Trainer (ATC), Nurse Practitioner, Physician (MD), Doctor of Osteopathic (DO), or Physician Assistant (PA).**
    - Health care professionals qualified to **CLEAR** an athlete from a concussion: **Nurse Practitioner, Physician (MD), Doctor of Osteopathic (DO), or Physician Assistant (PA).**

- Emergency Warning Signs

- You do not need to take the injured athlete to the Emergency Department (ED) unless instructed by a health care professional, the athlete requests to be taken, or any of the following occurs:

- Loss of consciousness (even a brief loss of consciousness should be taken seriously)
    - One pupil (black part in the middle of the eye) is larger than the other
    - Extreme drowsiness or cannot be awakened
    - A headache that gets worse and does not go away
    - Weakness, numbness, or decreased coordination
    - Repeated vomiting or nausea
    - Slurred speech
    - Convulsions or seizures
    - Difficulty recognizing people or places
    - Increasing confusion, restlessness, or agitation
    - Unusual behavior



## CONCUSSION LAWS

- **Max's Law (OAR 581-022-0421) & Jenna's Law (ORS 336.485)**  
(<http://www.ode.state.or.us/teachlearn/subjects/pe/ocampguide.pdf>)  
(<https://olis.leg.state.or.us/liz/2013R1/Downloads/MeasureDocument/SB721/Introduced>)
  - Mandates that all coaches receive annual training to learn how to recognize the symptoms of a concussion and how to seek proper medical treatment for a person suspected of having a concussion.
  - Does not allow for an athlete who is either experiencing concussion-like symptoms OR has been diagnosed with a concussion to return to activity/competition on the same day.
  - The concussed individual may ONLY return to activity once they no longer exhibit signs, symptoms or behaviors consistent with a concussion AND they have received medical release from a health care professional.

## CONCUSSION PREVENTION:

**EQUIPMENT:** Studies have shown that wearing the proper equipment for your sport can help decrease your chances of sustaining a concussion. Listed below are the most common forms of suggested protective equipment for various sports:

### Helmets:

- While there is no concussion-proof helmet, **wearing head protection that is fit properly** can somewhat reduce the risk of sustaining mild to serious brain or head injury. Even with a helmet, however, it is important to avoid hits to the head.
- Research has shown that a simple, properly-fitting helmet is more effective at reducing the risk of head injury than an expensive, cutting edge helmet that does not fit properly.

#### Helmet Fit Guidelines:

- Athlete's eyes should be visible.



- Helmet ear holes should line up with athlete's ears.
- Cheek pads should sit next to the skin, without a big gap.
- The back of the skull should be covered.
- With the chin strap tightened, the helmet shouldn't shift on the head when the facemask is grabbed and moved.
- Helmets should be re-certified yearly. Check the re-certification sticker on the back of the helmet to check.
- If you think something's wrong, ask the athletic trainer or the coach.

*Visit the CDC "Heads Up" Website at [www.cdc.gov/headsup/helmets](http://www.cdc.gov/headsup/helmets) for more information on helmet safety and proper fit!*

Helmet Sources: (<http://www.nata.org/blog/nata-admin/study-despite-new-technology-helmets-work-best-when-they-fit-properly>); <http://www.cdc.gov/headsup/helmets>

### **Mouthguards:**

- Currently, there is no significant scientific evidence suggesting that mouthguards prevent concussion, but they are still *very* important in protecting against face and mouth injuries.

#### *Mouthguard Fit Guidelines:*

- Mouthguards should be in good shape (not heavily chewed up).
- Mouthguards should fit past the second molar on both sides.
- Mouthguards should be molded to the athlete's own mouth in order to better absorb shock.

Consult with your Providence Athletic Trainer for questions or more information.