Concussions
5 Tips for Coaches

1. **Talk to Athletes About Reporting Symptoms**
   - Have discussions about concerns they have with reporting symptoms. Make sure to tell them you expect them to tell you or their parents of any symptoms they are experiencing.

2. **Proper Technique**
   - Ensuring proper technique is a key way to help reduce concussions. Make sure that what you are teaching them is the right information and you are using it the correct way. For ages 6-12 try to hone in on agility, eye-hand coordination, and general conditioning. These skills are best developed during this time and can help prepare for later years.

3. **Avoid Unsafe Actions**
   - Make sure that athletes avoid unsafe actions like hitting another player in the head, using head or helmet to make contact with another athlete, making illegal contact, and trying to injure another athlete.

4. **Create a Concussion Action Plan**
   - How will you handle a potential concussion? Creating an action plan can help you and your coaches stay on the same page. Some things to consider:
     1. If you suspect a concussion, remove the athlete from play.
     2. Keep them out until cleared by a healthcare provider.
     3. Inform the athletes parents/guardians
     4. Ask for written instructions from the healthcare provider on steps to help the athlete return to play.

5. **Keep Up-to-date on Concussion Information**
   - It is best to stay up-to-date on your state, league, and/or organization’s concussion guidelines and protocols.

Concussions
6 Myths

1. Myth: Concussions only result from a direct blow to the head.
   Fact: A blow to the head is a cause of concussions, however this can also happen from a fall, or a blow to the rest of the body that causes a whiplash effect on the brain.

   Fact: Loss of consciousness is not the only sign of a concussion. There are many other signs and symptoms used to diagnose a concussion such as, headache, nausea, fatigue, dizziness, light and noise sensitivity, and ringing in the ears.

3. Myth: A person with a concussion should stay awake for 24 hours.
   Fact: It is ok for someone with a concussion to sleep. Rest is important for recovery and allows the brain to heal. They should still be monitored, and it is ok to lightly wake them every couple hours.

4. Myth: The CT scan came back normal, so there is no concussion.
   Fact: It’s great news that the CT (CAT) scan is normal, but it is important to remember that a concussion is caused by chemical changes in the brain and cannot be seen on a CT scan, MRI or X-ray. These tests are to make sure there are no further complications such as bleeding in the brain or skull fractures.

5. Myth: Protective equipment such as helmets and headbands prevent concussions.
   Fact: There is no evidence that a specific piece of equipment can prevent a concussion. Protective equipment is designed to prevent skull fractures. A properly fitted helmet should be worn when playing certain sports to ensure the athlete’s need is protected.

6. Myth: My child can return to play and finish the game if no one is sure they suffered a concussion.
   Fact: If a concussion is suspected the athlete should be removed from play until further evaluated by a qualified healthcare provider. The athlete should never return to practice or play on the same day.

When in doubt, sit them out!

Barrow Concussion and Brain Injury Center 602-406-HEAD (4323)
https://concussion.barrowneuro.org | www.barrowneuro.org
Contact: 602-406-4762 | concussiondiscussion@barrowneuro.org

Concussion Facts

What is a concussion?
A concussion is an injury to the brain caused by rapid, forceful movement of the brain against the skull. It is usually caused by a bump or blow to the head, but it can also occur when the upper body is shaken violently.

Red Flags
In rare cases, a brain bleed may be possible after a bump, jolt, or blow to the head or body. Some red flags to watch out for are:

- One pupil larger than the other
- A headache that gets worse
- Drowsiness or inability to wake up
- Slurred speech, weakness or numbness
- Decreased coordination
- Repeated vomiting or nausea
- Convulsions or seizures
- Unusual behavior, increased confusion
- Loss of consciousness at time of injury

If any of these symptoms occur call 911 right away or go directly to the emergency room.

Signs and Symptoms
• Headache or head “pressure”
• Nausea or vomiting
• Balance problems
• Double or blurry vision
• Sensitivity to light or noise
• Feeling sluggish, hazy, or foggy
• Concentration or memory problems
• Just not “feeling right” or “feeling down”

Concussions affect everyone differently and symptoms may last longer or shorter depending on age, and person.

Symptoms can last anywhere from:

10-14 days in Children
7-10 days in Adults

If you suspect you or someone you know has suffered a concussion, it is best to see a healthcare provider as soon as possible to be evaluated.

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Concussions
Return to Learn

1. Daily Activities: Gradual Return to Typical Activities
Typical activities that the athlete does during the day as long as they don’t increase symptoms.

2. School Activities: Increase Tolerance to Cognitive Work
School activities such as homework, reading or other cognitive activities outside the classroom.

3. Return to School Part-time: Increase Academic Activities
Gradual introduction of school work. May need to begin with half days or with breaks throughout the day.

4. Return to School Full-time: Return to Full Academic Activities
Gradually increase school activities until the patient can tolerate a full day. As well as catch up on missed work.

**Gradual Return to Sport**

When an athlete is returning to sport they should follow a stepwise progression managed by a healthcare provider with increasing amounts of exercise. **Make sure there is at least 24 hours between each step.**

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**Step 1**
*Symptom Limited Activity*

May do daily activities that do not worsen symptoms.

**Goal:** Gradual reintroduction of work/school activities.

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**Step 2**
*Light Aerobic Exercise*

May do walking/stationary bike at slow to medium pace. No resistance training.

**Goal:** Increased heart rate.

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**Step 3**
*Sport Specific Exercise*

Running or skating drills. No head impact activities.

**Goal:** Add movement

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**Step 4**
*Non-Contact Training Drills*

Harder training drills, i.e., passing drills. May start progressive resistance training (weights).

**Goal:** Exercise, coordination, and increased thinking.

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**Step 5**
*Full Contact Practice*

Following medical clearance, participate in normal training activities.

**Goal:** Restore confidence and assess functional skills by coaching staff.

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**Return to Play/Sport Normal Game Play**

Written Clearance should be provided by a healthcare provider before the athlete begins the return to play protocol as directed by state laws and regulations.

If symptoms get worse during a stage, the athlete should go back to the previous stage until symptom free.
**Baseline Testing**
Baseline testing is done before the season starts to help medical staff diagnose and return to play concussions. It includes balance, cognitive and neurological tests.

**Concussion**
If you are showing signs of a concussion it is best to stop activity or be removed from play until evaluated by a healthcare professional.

**Recovery**
It is best to get as much rest as possible for the first 24-48 hours. Once symptoms start to subside it is ok to slowly return to daily activities.

**Return to Learn**
Returning to school should be done gradually. Always talk to your healthcare provider for the best way to return to school. Accommodations may be made to make returning easier.

**Return to Play**
Once symptom free and test scores are back to baseline. A step-by-step progression can take place. Your healthcare provider will take you through each step to increase activity.

If at any point symptoms return during the Return to Learn and Return to Play progressions, consult your healthcare provider as adjustments will need to be made.
Concussions Tips for Teachers

How to help with difficulty with thinking, remembering, or concentration.

• Reduce class assignments and homework to key tasks only. This can help with their concentration and ability to get assignments completed.
• Provide extra time on assignments in class and out of class. This can allow the students to get caught up on missing work.
• Provide class notes, or allow students to use a computer or record the lecture. This can help with their memory and can make sure they have correct information.

How to help with headaches, feeling tired, no energy, and dizziness.

• Provide rest breaks and allow time for the student to visit the nurse to help manage symptoms.
• If bothered by noise or light, provide the student with a quiet place to study and allow them to wear sunglasses or change seats that is away from the window.
• Do not substitute concentration activities for physical activities. For example do not assign reading instead of PE.

How to help with emotional symptoms.

• Sometimes students can feel emotional without knowing why. Identify an adult they feel comfortable talking to if they feel overwhelmed.
• If a student is feeling overwhelmed, allow them to go to a quiet place. Discuss with them how to get to this quiet location.
• While students need rest, keeping them from extracurricular activities may lead them to feel isolated. Students may benefit by being involved in certain activities as long as approved by the healthcare provider.

Types of Formal Support

• For most students, they may only need some short term accommodations and support as they recover from a concussion.
• There are a variety of formal support services that are available for students who may be experiencing a longer or more difficult recovery.
  • Formal support services may include:
    - Response to Intervention Protocol (RTI)
    - 504 Plans
    - Individualized Education Plan
• Check with your school or district to see what services are available.

**RECOGNIZE**

- A concussion is a brain injury caused by a hit to the head or body.
- The brain moves quickly back and forth and causes the brain to hit the skull.
- This causes a chemical change and sometimes stretching and damaging brain cells.

**RESPOND / REFER**

- If you see signs or the athlete complains of symptoms remove them immediately from play.
- Inform the coach and parent of suspected concussion.
- Refer to a medical professional with a background in concussion management.

**RECOVERY**

- Rest is the most important part of recovery.
- They should not return to physical activity until given medical clearance.
- Discuss academic concerns with teachers.