Concussion is a brain injury and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces. While most concussions typically resolve in 7-10 days, they can have serious consequences. It is recommended to seek immediate medical help.

- Concussion is a brain injury caused by a direct or indirect hit to the head or body
- Concussion causes a change in brain function not normally detected on imaging
- Most concussions occur without loss of consciousness
- There is an increased risk for another concussion when one has occurred
- Young children and teens are more likely to get a concussion and take longer to recover than adults

Concussion Signs & Symptoms

Cognitive
- Inability to think clearly
- Confusion
- Feeling slowed down
- Inability to concentrate
- Inability to retain new information

Physical
- Headache
- Blurred vision
- Unusual eye movements
- Nausea or vomiting
- Dizziness & Lack of Balance
- Sensitivity to light, noise, smells
- Fatigue & Muscle Weakness
- Seizures

Emotional
- Easily irritated
- Sadness
- Emotionally imbalanced
- Nervousness or anxiety
- Abnormal sleep schedule
- Difficulty falling asleep

Symptoms may last for days or weeks. Regardless, **always seek medical care immediately** to eliminate other life-threatening conditions associated with a serious concussion.
**Risk for Concussion**

Factors that may increase your risk of a concussion include:
- Participating in a high risk sport, such as football, hockey, soccer, horse riding, skiing and snowboarding; the risk is further increased if there’s a lack of proper safety equipment and supervision
- Being involved in a motor vehicle collision
- Being a victim of physical abuse
- Falling, especially in children and older adults
- Having had a previous concussion

**Concussions can lead to serious problems if not treated promptly**
- Assess the individual. Concussion should be suspected if one or more visible cues, signs, symptoms or errors in memory.
- Get Medical Help. Any head injury or concussion needs to be evaluated by a medical professional immediately.
- In all cases, follow the basic principles of first aid (danger, response, airway, breathing and circulation)

**Treatments for Concussion**

**British Columbia in 2010**

- 16,888 in the lower mainland
- 1,008 at BC Children’s
- 485 in BC

**Rest is the best way to recover from a concussion – both physical and mental rest**
- Plenty of sleep at night and daytime rest
- Do not return to work, resume daily activities, or “tough it out”
- Avoid further contact sports or anything that may cause another concussion
- Limit TV watching, computers and video games
- Do not drink alcohol
- Stay away from stimulants of all types
- Talk to teachers, coaches, employers, friends & family so they can understand.

**Guidelines for Return to Normal Activities**

- No Activity, Mental and Physical Rest until symptom free
- Light Physical and Academic Activity under individualized plan. If symptoms return, reduce or stop activities
- Gradually Increase Academic and Sport Specific Activity under individualized plan. Reduce or stop if symptoms return
- Continue Gradual Increase and Specific Training Drills without Body Contact. Reduce or stop if symptoms return
- Resume Academic and Training Drills - only once cleared by a physician
- Full Academic and Body Contact Training Drills - only once cleared by a physician
- Full Academic Activity and Game Play

**NOTE**: if symptoms appear, STOP activity, revert after 24-48 hours to previous step
CONCUSSION PREVENTION

Wear protective gear for sports and recreational activities
Always use the appropriate protective gear for any sport or recreational activity you or your child undertakes. Wear helmets and/or neck protectors, and any other appropriate protective equipment for that activity. Make sure the equipment fits properly, is well maintained and worn correctly. Follow the rules of the game and practice good sportsmanship. Follow all necessary safety precautions. Proper gear can protect you from a serious concussion.

Buckle your seat belt
Buckle up and drive safely. Wearing a seat belt may prevent serious injury, including an injury to your head, during a traffic collision. A good number of concussions result from automobile collisions, so driving safely, not speeding, not texting or driving impaired, and buckling your seat belt every time should become a habit.

Make your home safe
Keep your home well lit and your floors free of clutter. Tidy up anything that might cause you to slip, trip or fall. Falls around the home are the leading cause of head injury for infants, toddlers and older adults. To reduce the risk of head injuries to children, pad countertops and edges of tables, block off stairways and install window guards. Traction mats for showers are a wise purchase.

Wear sensible shoes
Wear shoes that have good traction and are easy to walk and maneuver in. Avoid wearing high heels, sandals with thin straps, or shoes that are either too slippery or too sticky. Shoes with good traction can protect you from injury.

Hone your balancing skills
In addition to the above measures, your balance may save your head. Certain yoga exercises may help you achieve a greater physical ability to balance and fall less often.