Patient Information: Concussions

What is a concussion?
- A mild traumatic brain injury occurring when impact causes the brain to move suddenly within the skull
- There may be no “obvious hit” to the head
- Typically does not involve brain damage/bleeding
- Temporarily impacts brain function

What are the symptoms of a concussion?
- Symptoms can vary between people, but may include some combination of: Headache, dizziness, poor balance, nausea/vomiting, memory loss, irritability, mood swings, or sleep changes
- Concussions may include a loss of consciousness, but someone who is conscious after a head injury can still have a concussion
- Symptoms may begin immediately after a head injury, or may not appear for several days

How are concussions diagnosed?
- The severity of a concussion is determined by the severity of the symptoms
- Have a family member or friend help you keep track of what your symptoms are and when they appeared- writing them in a journal may be helpful
- Your physician will review this journal of symptoms, along with performing a neurological exam (for vision, hearing, reflexes, balance, and coordination) and a neuropsychological exam (for memory, attention, critical thinking, communication, and emotional lability)
- If you have an ImPACT test (concussion screening) baseline score, you will take the test again to compare your scores
- In severe head injury cases, or cases that do not improve over time, a head MRI or CT may be ordered

How are concussions treated?
- Your physician will work with your athletic trainer, teachers, and employers to manage recovery
  - MA state law requires a physician certified in concussion management to clear youth athletes for return to play
- Physical rest: Stopping all exercise activities
- Mental rest: Limiting “screen time”, reading, work
- A multi-disciplinary approach is used: Medications, neuropsychology, cognitive rehabilitation, vestibular therapy, neurology, otolaryngology, speech therapy
- When you are symptom free, you may begin a slow progression back to regular activities
- Recovery is critical before returning to impact situations: Long-term problems are much more likely if another concussion occurs before you heal
- First time concussion: Typical recovery is 7-10 days
- For subsequent concussions, or particularly severe concussions: Recovery may take weeks to months

How can I prevent a concussion or decrease the severity?
- Prevention is very important, as one concussion puts you at greater risk to sustain additional concussions
  - Recurrent concussions can have negative long-term consequences for brain health
- Incorporate neck strengthening into exercise routines– this is the only evidence-based method of reducing risk of subsequent concussion– see below
- Use appropriate athletic equipment such as properly fitted helmets and mouthguards
- “Play smart” during tackling and impact plays
- To help prevent long-term damage, seek prompt medical help if having symptoms of a concussion

Where can I learn more about concussions?
- Education- OrthoInfo: https://orthoinfo.aaos.org/en/diseases--conditions/sports-concussion/
- imPACT test information: https://www.impacttest.com/

To schedule an appointment, visit the Steward St. Elizabeth’s Sports Medicine website at: semc.org/services-directory/orthopedics/sportsmedicine

STEWARD MEDICAL GROUP Bone & Joint Center 736 Cambridge St, CCP9, Brighton, MA 02135 Phone 617-779-6500 Fax 617-779-6555

Adapted from: American Academy of Orthopaedic Surgeons (www.aaos.org), Hospital for Special Surgery (www.hss.edu), Mayo Clinic (www.mayoclinic.org)
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