



Concussion Campaign Consensus Recommendations

Preamble

In May 2013 Montana passed the Dylan Steiger's Act¹ that requires any child exhibiting signs, symptoms or behaviors consistent with concussion to be removed from athletic events and prohibited from practice or play until a licensed health care provider has evaluated the child.

By late 2013 it became clear to Northwest Montana regional Neuroscience leaders that there was considerable variability within the region in the way that communities and clinicians were evaluating and managing people with concussion. Further, it was found that there was a general lack of consensus within the medical community regarding which guidelines should be used in addressing sports concussion. Several highly credible medical groups² have published guidelines or statements for concussion evaluation and treatment, and in many cases these guidelines/statements are not consistent with each other.

To address these issues, The Neuroscience and Spine Institute of Kalispell Regional Healthcare has established an expert group of clinicians to review and monitor the medical literature related to concussion and to apply the best available science in making consensus recommendations for our unique service area and beyond. The following consensus recommendations are intended to provide a consistent set of guidelines to the clinical, educational, and sports communities of Montana.

The consensus recommendations provide carefully considered evidence and guidance that can be applied and adapted to meet the diverse needs and resources of Montana communities. They are reviewed annually and revised, expanded and updated as deemed appropriate.

¹ <http://leg.mt.gov/bills/2013/billpdf/SB0112.pdf>

² American Academy of Neurology, American Medical Academy of Sports Medicine, National Federation of State High School Associations, American Academy of Orthopedic Surgeons, The 4th International Conference on Concussion in Sport Held in Zurich, November 2012, American Association of Neurological Surgeons, American Academy of Pediatrics, National Athletic Trainers' Association, American Academy of Family Physicians

Consensus Recommendations

1. Individuals who are planning to participate in sports activities that have an elevated risk for concussion should undergo pre-participation evaluation of their baseline neuro-cognitive and balance status.
 - a. Neuro-cognitive eval such as ImPACT is recommended.
 - b. Where not available, the *SCAT 5/ Child SCAT 5* tool may be used for baseline neuro-cognitive and balance testing.
 - c. Where available, alternative validated balance evaluations such as the Biodex are recommended.
2. Sideline evaluation for suspected concussion may be conducted using the *Recognize a Concussion* card.
3. Post-concussion evaluation should be completed using the original baseline tools where available. Where the original tool is not available, the *SCAT 5* (for persons age 13 years and older), and the *Child SCAT 5* (for children ages 5 to 12) is recommended for post-concussion assessment.
 - a. The *SCAT 5/Child SCAT 5* tool should be used by persons who have received training in use of the tool.
4. Concussed students should undergo a period of cognitive rest and stimulation restriction followed by a gradual, staged increase in cognitive activity prior to resuming normal academic loads, until they are at baseline levels. The *Return to Learn Plan* protocol is recommended as a guide for successful return to learning following concussion.
 - a. School personnel are encouraged to complete training sessions regarding recognition of concussion symptoms, principles of cognitive rest, stimulation control and gradual return to learning activities.
 - b. School personnel should communicate with parents and healthcare providers regarding progress or lack thereof during the concussion recovery process.

5. Return to Play decisions should be based on completion of the Save the Brain protocol which has been adapted from the 2016 Berlin protocol.
 - a. For children ages 5 to 12, the timeframe for moving from one step to the next is 72 hours.
 - b. For persons 13 and older, the minimum timeframe for moving forward is 24 hours.
 - c. The *Return to Play Protocol* should be monitored by a licensed healthcare provider who has been trained in concussion management.
 - d. This should not formally begin until the person has returned to a normal cognitive load (i.e. work/school) without return of symptoms.

6. If symptoms are persistent (e.g. more than 10-14 days in adult or more than 1 month in children), the athlete should be referred to a healthcare professional who is an expert in the management of concussion. Overall, these are difficult cases that should be managed in a multidisciplinary collaborative setting, by healthcare providers with experience in sports related concussion.