

## Competitive Edge Concussion Management Program

The Competitive Edge Concussion Management Protocol has been designed to reflect the best practices recommended by leading experts in the field. Research has indicated that repeated concussions can have serious repercussions later in life, particularly if recovery is not properly managed. Our mission is to minimize the cumulative effects of head injuries in sport through prompt and proper recognition and treatment.

Neurocognitive Baseline Testing is one tool that can be used to aid in successful concussion management. It provides additional information on how an individual's brain is functioning prior to an injury and is then used to determine when it is safe for that individual to begin to engage in activity again following a concussion.

The Competitive Edge Concussion Management Protocol consists of preseason neurocognitive baseline testing as well as a thorough preseason assessment. In the case of a suspected concussion, the individual will be encouraged to contact Competitive Edge as soon as possible. Upon completion of an assessment, we will provide the athlete with a thorough and individualized approach to return to their daily activities. This will consist of personalized guidance to ensure they are partaking and refraining from the right activities, allowing themselves to heal as quickly and safely as possible. Once they are symptom free for a minimum of 24 hours, they will repeat the neurocognitive exam. They must receive scores within 5% of their baseline or better ensuring the brain has returned to normal function, prior to progressing on in the concussion management program. If they receive adequate scores on this exam, they will progress on to a 5 day graduated return to play. This consists of physical activity with an increasing level of difficulty and ensures that the athlete is at their best and truly ready for participation when they return to their sport. We work alongside the athlete, their doctor or health care provider, and when necessary, coach and parent, throughout each step of recovery.

We are proud to be the largest provider of team based concussion management within the Calgary area. We have the pleasure of continued work with the Calgary and Area Midget Football Association, the Calgary Bantam Football Association, and Ernest Manning High School.

If at any time you would like more information about the Competitive Edge Concussion Management Program feel free to contact Lindsay Ibey or Sarah McLaren at Competitive Edge.

### THE SPECIFICS

#### Pre Season:

- Baseline testing should be completed prior to the first contact practices of the season.
- When athletes arrive at their testing date they should already be familiar with the Concussion Management Program.
- They will need to bring their completed **Athlete and Parent Understanding and Agreement** signed by the athlete and their parent.
- The Concussion Baseline testing process consists of a "SCAT3" (Sideline Concussion Assessment Tool 3) and Online Neurocognitive testing.

- The SCAT3 will be completed individually with an examiner and includes testing your balance, coordination, memory, and other cognitive function. These tests will be used in the sideline assessment, diagnosis, and treatment of a head injury.
- The online Neurocognitive exam is a computer-based test which gives a detailed score of cognitive ability.
- Group Testing will take approximately 2 hours so please plan according and come prepared to stay for duration of testing. Parents are welcome to leave and come back to pick their child up.
- We strive to keep time between the SCAT3 and the computer testing to a minimum however there may be short durations of unoccupied time during the 2 hours session. There will be supervision of the group but if you are concerned that your child may require additional supervision we encourage you to remain at the testing site for the duration.

#### **In the Event of a Suspected Concussion:**

- *Any athlete suspected of having sustained a concussion, either during practice or a game, should be removed from play and not allowed to return for the remainder of that day.*
- Athletes will be covered for a full year from when they complete their baselines. If an athlete is suspected of having a concussion at any point over those 12 months they should contact Competitive Edge immediately.

#### **At the time of injury:**

Symptom Scale and SCAT3 should be performed by the on field medical care.

#### **Within 24 hours:**

The athlete, his/her parent, coach or team medical personnel should contact Competitive Edge to inform them of the injury.

#### **While the athlete is symptomatic:**

- A Certified Athletic Therapist at Competitive Edge will work with the athlete, their parents and coaches to track symptoms and monitor recovery.
- Athlete should not be participating in any activity – including physical education classes or school sports.
- They should make an effort to rest cognitively as well. This may include an altered school schedule, avoiding activities such as reading, studying, watching TV, playing video games, or using any other kind of digital screen. The athlete may need to avoid loud, chaotic environments and bright lights.
- During this time the athlete will complete daily Symptom Scales online so that his recovery can be monitored
- If necessary a letter will be sent to the athlete's school informing them of the injury and giving them instructions on how to best aid the athlete's recovery.
- If necessary Competitive Edge will make the proper referrals to specialists on the athletes behalf.
- As symptoms allow, Competitive Edge will guide the athlete through an individualized Return To Learn/ Work Program to help them safely return to their day to day activities

### When the athlete is symptom free:

- The pre-season tests will be repeated.
- If the athlete is within at least 95% of baseline in all of their testing, including the neurocognitive baseline test, and remains symptom free for 1 day following the re-testing, they will be permitted to begin their **5 stage graduated return to play process**.
- If the athlete does not meet the required scores on the neurocognitive exam, they will be asked to continue to rest for an additional 5 days prior to repeating the exam.
- If at any point during the 5-stage return to play process, the athlete's symptoms return they must stop activity. They will be reassessed daily until they are again asymptomatic and the process will begin again.

### 5 STAGE GRADUATED RETURN TO PLAY

**Stage 1:** Low impact cardio - 20 min stationary bike

**Stage 2:** Higher intensity cardio – 10 minutes interval running (30sec sprint/ 30 sec recover x10)

- Body Weight circuit (Push up / Squat/ Sit Up x 20 sec – repeated 3x)

**Stage 3:** 60-yard shuttle run x10

- Non contact sport specific drills

**Stage 4:** Controlled return to full-contact (Contact practice)

**Stage 5:** Full sport participation (game) – With a Physician's note.

During this whole process every effort will be made to keep open communication between Competitive Edge, the athlete, their parents and their coaches. To avoid any miscommunication each team will designate one coach or staff member to be the liaison between Competitive Edge and their team. Since it is a matter of personal medical information, if at any time the athlete or their parents ask that details of the athlete's injury not be shared with the coaches Competitive Edge will honor this request. Before an athlete is cleared to play Competitive Edge will issue a letter to the athlete to bring to their coaches outlining their return to play process.

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*Policy and Plan Updated August 1, 2010*

P McCrory, W Meeuwisse, K Johnston, J Dvorak, M Aubry, M Molloy, R Cantu

*Consensus Statement on Concussion in Sport: the 3rd International Conference on Concussion in Sport held in Zurich, November 2008*

Br J Sports Med 2009;43:Suppl 1 i76-i84 doi:10.1136/bjism.2009.058248

Ontario Neurotrauma Foundation, Guidelines for Pediatric Concussions , June 25<sup>th</sup> 2014