

Physical Therapy

Concussion Program



Going "OTB" (OVER THE BARS) is the most common mechanism of brain injury in cycling. It doesn't matter if you land on top of your head, on the side, on the front or the back, any of those impacts can cause a concussion or brain injury. In traditional team sports like football and hockey, concussion testing has become the norm in order to determine level of severity of the injury and to safely and effectively manage an athlete's return to play. However, it is extremely less organized in the world of endurance athletes and cycling. In the sports of triathlon and cycling, it is more of "every man/women for themselves" when it comes to medical care and injury prevention.

In order to safely and effectively determine when a cyclist or triathlete should return to normal training, a baseline test should be done prior to the accident, and then again after to have a comparison. There are no norms when it comes to cognitive ability, therefore PRE-testing is critical to the management of traumatic brain injury. When should pre-testing be done? Immediately, since obviously accidents are unpredictable and could happen tomorrow. Ideally, testing would be done yearly much like a physical since balance and cognition can improve or deteriorate.

ImPACT

Computerized software called ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) is the most-widely used and most scientifically validated computerized concussion evaluation system. The test takes approximately 30-45 minutes for the initial baseline. The program measures multiple aspects of cognitive functioning in athletes, including:

- Attention span
- Working memory
- Sustained and selective attention time
- Response variability
- Non-verbal problem solving
- Reaction time

If a concussion is suspected, the baseline report will serve as a comparison to a repeat ImPACT test that can be scheduled once you are 24 hours symptom free. The results will then be reviewed, and can assess potential changes or damage caused by a concussion. The re-test will also allow us to assist the athlete in a proper return to training program, as a return to training too soon can prolong symptoms and potentially cause lasting and severe effects if another concussive event occurs.

The ImPACT Test is:

- One important piece of the overall concussion evaluation and management process.
- A sophisticated test of cognitive abilities.
- The most scientifically researched concussion management tool.
- A tool that can help health care professionals track recovery of cognitive processes following concussion.
- A tool to help communicate post-concussion status to athletes, coaches, parents, clinicians.
- A tool that helps health care professionals and educators make decisions about academic needs following concussion.

FAQ's:

When should I schedule a baseline ImPACT test?

Immediately, since accidents can happen anytime you are on the road or trails.

How often should I get re-tested if I haven't had an injury?

Yearly, just like an annual physical.

How soon after a brain injury should I be tested with ImPACT?

Once your symptoms subside, then call to schedule an appointment.

If symptoms are gone, why do the re-test then?

In order to determine if your unique cognitive ability has returned to normal. This helps determine a return to training program. Returning to training too soon can cause symptoms to last longer.

Does testing reduce the likelihood of concussion or prevent it?

No, proper fitting helmets and awareness are the best prevention methods.

I just had my "bell rung", do I still need to do the testing?

YES! There is no diagnosis in the medical literature called "bell rung". These are concussions! While they may be mild, a cumulative effect can create long term brain health issues.

If I sustain a traumatic brain injury what should I do first?

You should be evaluated ASAP after the injury by a medical professional – preferably an emergency or a family physician.

I have children, are they at risk and should they be tested?

Most high schools have implemented testing for football with soccer/hockey/lacrosse/basketball/baseball/softball lagging behind. Any sport with a chance of impact to the head should consider a baseline test (ie, skateboarding, skiing, rock climbing, etc.). Knowing what is cognitively normal for a child is extremely tough and impossible without a baseline. While having a helmet

on that fits correctly is critical to prevent severe head injury, it will not totally prevent a concussive injury.