



Ahead of the Game:

Brain injury awareness

By Katherine Abraham, Hons. BA

The facts are easy to find: they're on the Internet, in books, libraries and pamphlets, but do we ever really take the time to read them? Understand them? Take a minute to comprehend the gravity of them? Nearly half a million people in Ontario alone live with acquired brain injuries (ABI) and this number doesn't even begin to describe the amount of people affected by ABI such as family, friends, employers.

If that number isn't startling enough, consider this: there are almost 18,000 emergency room visits every year in Ontario as a result of traumatic brain injuries (or TBI, meaning a brain injury caused by a blow to the head). If you're still not convinced brain injury is that prevalent, the annual instances of TBI are greater than those of multiple sclerosis, spinal cord injury, HIV/AIDS, and breast cancer combined. The numbers are already high, and every year you can add another 50,000 Canadians who will suffer an ABI, including 44 Ontarians every day.

Unfortunately, sometimes brain injuries are not something you can avoid just by changing your behaviour. The scary reality is that anyone, anywhere, anytime can suffer a TBI. This is not to say that someone who engages in reckless behaviour, like BASE jumping without a helmet, is at the same risk-level as someone who only walks to and from the sofa every day, and slips on the way. Everyone's best form of protection is to increase awareness of both the possibilities of injury as well as their consequences and how to deal with them.

Research shows that the use of safety equipment, such as helmets, does dramatically reduce the chances for injury to the brain in the instance of an accident. For example, in the cases of cycling collisions, wearing a helmet can reduce your risk of head injury by up to 85 percent. Jurisdictions with mandatory bike helmet laws have a 25 percent lower rate of injury than in areas without helmet legislation (BIST, 2011). Of course, prevention is the only cure, but what about when it's too late for that?

Both acquired brain injuries and traumatic brain injuries can happen suddenly and without warning. In all cases, speedy access to medical treatment and rehabilitation are of utmost importance in ensuring the best, most successful recovery possible.

- There are 27,000 children with ABI in Ontario schools
 - 20% of people in psychiatric settings appear to have a history of brain injury
 - In Ontario, 44 people sustain a brain injury daily
 - Brain injury is the greatest cause of disability under the age of 44
 - Brain injury kills more children under 20 than all other causes combined
 - In Ontario, someone suffers a brain injury every three minutes

There are many organizations set up to further awareness of brain injury, including the group stopconcussions, whose goal is to advocate, educate, and build awareness of the issues surround brain injury, particularly in the world of sports. Former NHL player Keith Primeau is the co-founder of stopconcussions.com and has suffered four documented concussions during his career. Since retiring in 2006, Primeau has been on a mission to reduce the incidences of concussions in hockey and other sports. "A concussion is a brain injury and its effects can be devastating and life altering. It could be the death of sport as we know it if we don't get a handle on this problem," implores Primeau. Stopconcussions aims to implement their four step program "Education, Prevention, Management, Research" to further the fight against concussions in sports.

Other professionals and organizations available to aid in brain injury recovery include rehabilitation services, doctors, hospital programs, advocacy groups, and brain injury associations. All of these groups agree that seeking treatment quickly, and being dedicated to its success are the key factors in recovery. Dr Nora Cullen of West Park Healthcare Centre in Toronto says "Attitude is what plays the biggest role in patient recovery. If a patient can maintain a positive attitude, he will go farther than those people who can't." Along the same lines, Cullen notes the importance of the patient's support unit to recovery. She has witnessed that patients whose friends, families, employers have not

been able to lend emotional support suffer a loss in drive, resulting in the subsequent suffering of their recovery-progress as well.

Since brain injuries can occur in many ways, like motor vehicle accidents, slip and falls—including those from sports accidents—as well as cardiac arrest, near drowning, ruptured aneurisms, there are also varying forms and lengths of treatment. At West Park Healthcare, the average length of time for an individual to be in (initial) rehabilitation is about six to eight weeks, depending on the complexity of the injury. Dr Cullen also adds that establishing “a safe environment with adequate support and supervision” upon discharge is also a determinant for length of recovery. Dr Rolf Gainer from the Neurological Research Institute of Ontario (NRIO) says, “Each brain injury is different in terms of severity, type of injury, areas of the brain involved, the resulting disabilities, and how each person reacts to their brain injury.” Both professionals agree that while most progress stops after the two-year mark, small changes can occur for several years afterwards. Dr Gainer notes, “Early aggressive rehabilitation can influence positive change and adaptation following a brain injury.” Dr Cullen adds that during the initial two years of recovery, “the first six months have the quickest rate of recovery.”

Ruth Wilcock, executive director of the Ontario Brain Injury Association (OBIA), reports that they’ve recently had an increased rate of interest in their association. Wilcock suggests that “the increase may be due in part to concussions gaining a significant amount of media attention over the past several years.” OBIA provides education and support at no cost to persons living with brain injuries and/or their family members; they are contacted approximately 250 times per month by people looking for support. Most commonly, sufferers of brain injuries will experience personality changes, cognitive issues, behavioural issues, emotional and mental health issues, and fatigue. Often, says Wilcock, people contacting OBIA are looking for information around the life changes that they, or their family members, are going through.

The statistics show that ABI is the leading cause of death and disability among people under 45 years of age, and that 11,000 Canadians will die each year from a brain injury. There has been an increase in complex brain injuries as our demographic changes to an ageing population. “There are more people [in today’s society] susceptible to falling,” says Dr Cullen.

“A concussion is a brain injury and its effects can be devastating.”

This increase in possible brain injury means treatment opportunities are more important than ever and hospitals and rehabilitation facilities are adapting to this changed need. West Park Healthcare is leaning towards more “functional treatments” that focus on a patient’s individual impairments rather than treating every patient as if they were all “in the same bucket.” This approach provides more specialised treatment programs for each patient and places an emphasis on inter-professional care. For example, a physiotherapist and an occupational therapist might work together on a patient’s case to create a blended treatment program using both forms of therapy to help bring a patient past a barrier. Dr Gainer reaffirms the idea that every person’s recovery and return to life activities are different, stating that: “we know that given adequate resources that someone with a brain injury can return to independence in the community.”

For Dr Cullen, preparing a patient for work re-entry is a multi-step process that includes “doing a full assessment in the area of employment, determining a re-entry level responsibly by identifying current abilities, and starting at a slow pace and ramping up gradually as the patient tolerates.” Their motto is ‘start low and go slow.’ Dr Cullen also recommends “starting at a manageable level so patients don’t become overwhelmed and lead to feeling defeated. Positive reinforcement can make a huge difference.”

“NRIO works closely with clients and clinical teams to establish vocational opportunities with a focus on quality of life and volunteering opportunities, says Colleen Boyce, executive director of the institute. Boyce describes a particular case of a now 22-year-old male who was hit by a car while cycling when he was 12. “In this case, executive functioning skills such as initiation and motivation can be debilitating factors in prohibiting the client from a successful return to work.” After completing a vocational assessment of the client to determine his education development, aptitudes, and interests, he was successfully placed in a 16-week volunteer position. While the position did not garner the client permanent paid employment, it was a milestone in identifying his strengths and developing his skills. The experience gave the client confidence in his employability as he continues to work towards his goals.

Anna Greenblatt, founding partner and co-owner of Inter-Action Rehabilitation Inc., understands that many patients are unable to return to their pre-injury work positions as they may no longer be able to manage the components and aspects of that position, and/or that the position cannot be modified to meet the patients’ needs. Greenblatt believes a patient’s “greatest challenge may be determining a new career path that is both suitable and of interest.” Greenblatt identifies some of the key issues individuals may face when returning to work as “issues with noise and light sensitivity, taking longer to accomplish tasks, communicating with coworkers, dealing with fatigue, and possible issues of accessibility.” It is these barriers and more, that make brain injury awareness even more important for employers.

While the effects of brain injury can last forever they don’t have to be devastating; the pursuit to raise awareness of brain injury and its effects is only the first step in changing the circumstances for people with brain injuries. With increased awareness and the innumerable associations and advocacy groups set up around communities, help has never been easier to find. ☈