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Volume 13, Issue 1

June 2015

UNIVERSITY OF WASHINGTON
TRAUMATIC BRAIN INJURY
MODEL SYSTEM



Exercise and Recreation After TBI

By Arthur Stacey

Exercising is a great way to improve our overall health. After TBI, it can be an excellent way to help recover. Brainline references research that suggests exercise can help TBI survivors with memory, mood, sleep, and organization, and can also improve basic physical abilities like mobility and range of motion. There are many different forms of exercise; many choose to walk, run, bike, or lift weights. Alternative forms of exercise therapy are also becoming popular treatments for TBI.

Yoga can be especially useful. The many practices of yoga use your brain in a different way to help focus and calm down. By learning to relax and quiet the mind, TBI survivors can find relief from their behavioral and cognitive difficulties. When it comes to yoga therapy after TBI, no one is a bigger advocate than Kevin Pearce. Once a world-class snowboarder, Kevin sustained a TBI in 2009 while training for the Winter Olympics in Vancouver. His injury brought on a six-day



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coma, memory loss, mood swings, and vision problems, but Kevin's issues began to improve after starting yoga. Kevin says yoga's combination of exercise and meditation was more helpful to him than he ever could have imagined.



The benefits were so significant for Kevin that he and his brother Adam started the [LoveYourBrain](#) (LYB) Foundation, a non-profit organization that connects, educates, and empowers people across the country to live a healthy brain lifestyle. They provide education about how to prevent brain injury, as well as products and experiences to help the ongoing recovery after TBI. Their yoga program is a six-month yoga and meditation experience for TBI survivors that hopes to strengthen and reconnect the mind and body.

Although LYB Yoga has not yet reached Washington State, there are great resources in the Seattle area for TBI survivors to continue their recovery through exercise. For example, [Embrace the Moon](#) studio in Ballard offers free gentle yoga for people with TBI on most Friday afternoons. TBI survivors are welcome to join each other for therapeutic yoga classes to continue their recovery just like Kevin Pearce. [Outdoors for All](#) is another outstanding way for children and adults with disabilities to participate in outdoor recreation. Some of their available activities include skiing, hiking, kayaking, and camping. Outdoors for All understands the benefits of staying active, and their programs are excellent ways for TBI survivors to continue recovery.



Regardless of your preferred method of exercise, whether it's running, walking, biking, yoga, or something else, what's important is that you are staying active and continuing to improve. Be sure to ask your rehabilitation specialists about which activities they would recommend; they know what would be best for you! The recovery process after TBI is ongoing, but exercising is an excellent way to feel great and continue to improve.

A TBI Survivor's Story

By Angela Sweet

My name is Angela and my TBI recovery story begins in August, 2009. One morning around 6:15am, on my normal commute to work by bicycle, medics were called to come and get me out of the road on Delridge Way in West Seattle. I think I must have been hit by a car since I had 22 broken bones and a severe head injury, but since I don't remember it and

there were no witnesses Seattle Police says it is inconclusive and "it could have been a pothole."

"I opened my eyes two weeks after my accident, but that was just the beginning of my journey."

I was taken to Harborview and was put in the ICU after losing consciousness and going into a coma. I remained in ICU for 1 week and was then stable enough to be moved to acute care, still in my coma. I opened my eyes two weeks

after my accident, but that was just the beginning of my journey.

After 5 weeks in acute care my family was given an option. The admission coordinator for inpatient rehab at Harborview told them I could go to inpatient rehab now and the folks there would work on rehabilitating my brain or I could go to a skilled nursing facility (SNF) until my body was more healed and then go to inpatient rehab and the folks there would work on rehabilitating my brain and teaching me how to walk. My family decided they wanted me to be able to think and walk and off I went to a SNF for 5 weeks. Thanks, family!

While at the SNF I worked at physical, occupational, and speech therapies and continued all of these when I returned to Harborview for inpatient rehab.



During my hospital-SNF-hospital “adventure” a few things were really key in progressing my recovery. The biggest was my faith. SO many prayers were being said on my behalf! And my family and I were surrounded and supported by our extended family and our church family. The other BIG thing I believe was key was that I was always advocated for. I was never alone in these 13 weeks. Someone was with me *all* of the time.



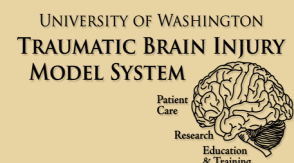
When I finally got to go home I first worked with Rehab Without Walls where therapists came to me I got training on how to navigate my actual environment. When I “graduated” from Rehab Without Walls I started outpatient rehab back at Harborview and had acupuncture, Reiki, hyperbaric oxygen treatments, did pool therapy, and went to a Chinese herbalist. And I did a Posit Science program and neurofeedback.

Nine months after I got hurt I started back to work at two 4-hour days per week. I slowly worked my way back up to working 80% and now I am a full-time Research Scientist.

The biggest things for me now, almost 6 years later, are to be patient with myself, remember how far I’ve come, and be grateful for the progress I’ve made.

What’s Your Survivor Story?

Angela’s story is an inspiration to all of us. Tell us yours at uwtbi@uw.edu and we can include it in our next newsletter!



Having Headaches After Your TBI? We're Here To Help.

Headache is one of the most common complaints after TBI. In fact, approximately half of individuals with TBI report experiencing headache throughout the first year after injury. Everything in life is harder with a headache—we want to help you get back to your daily life.

If you are experiencing headache after your TBI, check out our studies below:

[The APP Study](#)

Study Contact: Arthur Stacey, astacey@uw.edu or by phone at 206-744-5196

The APP Study looks at whether early treatment with Amitriptyline, an FDA-approved medication can help prevent the development of chronic headache after mild traumatic brain injury. Eligible subjects must have had a **concussion/mild- TBI, within the last 12 weeks**, and have experienced headache after injury. Subjects will keep a headache diary while enrolled.

[The TWIST Study](#)

Study Contact: Arthur Stacey, astacey@uw.edu or by phone at 206-543-0219

The TWIST Study looks at whether Sumatriptan (also known by the brand name Imitrex™) an FDA-approved medication for treatment of migraine, shows similar effectiveness for treatment of chronic post-traumatic headache. Eligible subjects must be within **3 months—5 years of their TBI**. Subjects will keep a headache diary while enrolled.

[The Botox Study](#)

Study Contact: Elisa McGee, emcgee@uw.edu or by phone at 206-598-9260

The Botox Study is looking at whether the use of BOTOX®, an FDA-approved therapy for treatment of chronic migraine, shows similar effectiveness for treatment of chronic post-traumatic headache. Eligible subjects must be within **3 months to one year of a mild traumatic brain injury** with recurring migraine headaches. Subjects will receive injections of study medication every 3 months, for 9 months, and will keep a headache diary while enrolled. This study requires five visits to the UWMC Headache Clinic.

All studies are voluntary and will not affect the care you receive at the University of Washington

Recapping Our January and April Forums!

TBI Updates Vol.
13, Issue 1

www.tbi.washington.edu



Last January, Janet Powell, PhD and Hye Kyong Jeong, MSW led our forum about the most common concerns for caregivers as well as effective problem-solving strategies. Emotional adjustment, providing care, and engaging in healthy habits were all top concerns. The study helped caregivers address these and other concerns by providing problem-solving strategies. Caregivers who received the education and mentoring had lower levels of emotional distress. She

also described the advantages of dealing with concerns in real time and the problem-solving steps that caregivers in the study used to identify and implement solutions. For more information about Dr. Powell's study and how they helped caregivers, please visit the events page at www.tbi.washington.edu

In our April forum, Jennifer Zumsteg, MD discussed how symptoms that are common after TBI may not actually be a result of the brain injury, but might be due to something else entirely. Sometimes it just isn't possible to find out the cause of a symptom. The good news, however, is that you can still target the symptoms with treatment regardless of the cause.

Dr. Zumsteg gave excellent advice and resources for self-managing cognitive changes, headache, mood changes, and sleep problems, and also discussed when to get help from a doctor. She also asked everyone in attendance to share their helpful strategies for managing their symptoms. These strategies, as well as a number of other great resources for symptoms management, can be found at <http://tinyurl.com/ZumstegApril2015>.



Bike Safety in the Summer

By Danielle Lozier



As the weather grows warmer and the days less grey, Seattlites can be seen enjoying the sunshine in many forms. Seattle Bike Blog estimates that cycling rates grow more than 500% between December and July, and the number of people riding from year to year is rapidly accelerating. There are various types of people who ride bikes and various types of riding. Some casually ride along, while others fly down hills and dodge traffic during rush hour.

Bike riding becoming increasingly popular and the conversation around how useful it is to wear bike helmets has become louder in recent years. With last fall's commencement of Seattle's Pronto bike share program, traveling by bike, whether to commute or to coast down the hill to a waterfront picnic, can have a very positive effect on personal health and wellbeing.

It may surprise people that King County does in fact have a helmet law. Unhelmeted cyclists, in theory, can receive a ticket for \$103. Still, it is not difficult to spot cyclists without helmets-and they seem to represent all levels and types of bike riding. With this lack of enforcement, people are free to practice whichever type of riding they choose, with or without helmets. Many people choose not to wear helmets because they claim helmets are uncomfortable, make riding more inconvenient, or because they don't see it as necessary. Some believe that strictly enforced helmet laws actually prevent people from riding their bikes. More information about helmet laws around Washington can be found at www.wsdot.wa.gov/bike/helmets.htm

According to the European Cyclists' Federations, the percentage of the population that ride bicycles in other parts of the world, such as Denmark, is far higher than the anywhere in the United States. Yet their severity and incidence of bike-related accidents is lower. Why is this? The "safer biking" in many European countries can largely be explained by the culture around biking, the infrastructure of roads, and relationship between cyclists and cars. The automobile is a central figure in American culture and we have prioritized the car in many

urban centers, including Seattle. Many cities in Europe have very protected bike lanes to minimize any interaction between cars and bikes to prevent possible accidents. Bike riding in American cities tends to be far more exposed and causes accidents to be both more frequent and more severe when they do occur.

Seattle is not at a point where bicycles are valued as much as cars. Even with proper riding techniques, such as using hand signals and traveling in a predictable line, accidents happen – a car door flies open, another makes a quick right turn without signaling, an errant pothole is suddenly throwing a bike off it's course. The scenarios are not difficult to imagine because they are a reality every day.

Helmets are not perfect. While technology is improving, they do not prevent all injuries. Still, based off of data from Emergency Department admissions and severity of injuries, they greatly reduce the likelihood of moderate-severe traumatic brain injuries. This is significant. To an individual, injuries can be devastating to the cognitive, emotional, and physical aspects of health. Relationships between loved ones can deteriorate under the stress, careers may be lost, and one thing is for sure – people change after brain injuries.

So, why risk it? Start with early education around safe bike riding – meaning bright clothing, proper etiquette (riding in a predicable line, signaling, obeying traffic laws), and wearing a helmet! Also, educate drivers about how to drive around cyclists (leave enough room to the right, signal, watch for bikes before you open

**Helmets are not perfect,
but they greatly reduce
the likelihood of
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traumatic brain injuries.**

your door). Many individual behavioral changes can prevent accidents from happening. Big picture, policy level, we need to make sure that bike lanes are seen as an important investment in both the prevention of accidents and the

promotion exercise for a healthy and fit population. For more information about bike safety and resources, please visit <http://www.seattle.gov/living-in-seattle/transportation/transit/bicycle>.

TBI InfoComics Update!



The TBI InfoComics project has accomplished a lot since we last updated you. We're now putting the finishing touches on our newest comic called Understanding TBI. Understanding TBI follows a 22 year old man from his injury in a car collision until his two year follow up appointment. The comic explains what happens to the brain after an injury, introduces readers to common service providers, and explores the perspective of caregivers and family members.

Here's How You Can Help!

We've also completed TBI and Headaches, so look for it soon! We're looking for people who have a TBI to help us evaluate it, if you're interested please email tbicomic@uw.edu. We've also been working on a new website, which will launch very soon. For now you can see our first two InfoComics at depts.washington.edu/tbicomic and when you're there please take a moment to complete our survey about the comics. This address will be the same even with our new website, you can see it and our new comics very soon, so stay tuned!

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Who's Who? - Jason Barber, MS



Jason is our "go-to" guy when it comes to anything involving databases, statistics, reports, and graphical presentations. He consults on many of the major TBI studies at the University of Washington and Harborview, including TBI Model Systems, APP, TWIST, TWILIGHT, STOP, CONTACT, BOOST, and the CBG study based out of Latin America.

Jason received his M.S. in Biostatistics from the University of Washington in 2003, and has been working in TBI research since 1997. For the past nine years he has served on the board of the Brain Injury Alliance of Washington, including two years as board president, and plays a vital role in the BIAWA's annual fundraising gala. A Seattle native, Jason enjoys long-distance walking, backpacking, stair-climbing, playing pool, and watching Sounders games, and over his lifetime has amassed an unusual collection of baseball & soccer cards.

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Announcements:



Join us for our next forum!

Our next quarterly forum will be held on **October 21, 2015 from 6:30—8:00** at UW Medical Center, South Campus Center room 303. This forum will focus on Recreation and TBI. Please join us for an informative panel discussion to learn more about how you can benefit from fun recreational activities after TBI.

Walk, Run & Roll for Thought

Sponsored by BIAWA and Seattle BrainWorks

The Fifth Annual Walk, Run & Roll event will be on Sunday, July 26, 2015 at Seattle's beautiful Magnuson Park. This event and fundraiser supports two important nonprofits that serve to improve the quality of life for individuals and families throughout Washington impacted by brain injury. For more information, visit <http://www.biawa.org/walk2015.php>.

The Washington Traumatic Brain Injury Resource Center

BIAWA is first and foremost a source of support for those affected by Brain Injury, and the Resource Center is a critical part of this.

[Brain Injury Alliance of Washington](http://www.biawa.org/): www.biawa.org/

[BIAWA Support Center](http://www.biawa.org/getsupport.php): www.biawa.org/getsupport.php



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UNIVERSITY OF WASHINGTON TRAUMATIC BRAIN INJURY MODEL SYSTEM



TBIMS Updates

Volume 13, Issue: 1, 2015

The contents of this newsletter were developed under a grant from the [National Institute on Disability, Independent Living, and Rehabilitation Research](#) (NIDILRR grant number H133A120028). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS).



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