THE BRANN HEALTH

ADVOCACY IN DC

EMBRACES LIFE AFTER MULTIPLE BRAIN TUMORS

DIZZINESS AFTER

THE **VESTIBULAR SSUE**

THE BRANN HEALTH

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Spring is such a beautiful time of year, and a reminder that what once was dormant and ugly is now blooming and bright!

Recovery from brain injury can feel a bit like the changing of the seasons ... one minute you feel like you're in the darkness of winter, and the next you feel like a bright, sunny summer day There isn't always a rhyme or reason for this drastic change of season; it's just how life is with a brain injury.

This issue is particularly important to me. Dizziness is one of the most common symptoms I hear from survivors in my group ... as well as individuals who aren't sure they've ever had a brain injury, but struggle with bouts of dizziness.

Dizziness can be completely debilitating. After my injury, I constantly felt like the world was moving and swaying around me. I never felt stable on my feet, and I didn't trust my depth perception — I constantly ran into doorjambs or corners of tables (I still have the bruises to prove it).

I told every doctor I saw that I felt my dizziness was coming from my eyes. As a lifelong photographer I was unusually tuned-in to my vision and knew something was "off" with my eyes, but couldn't quite put it into words. Doctors would listen and quickly dismiss me, saying, "Oh, that isn't really possible."

Little did I know that I was actually on the right track and that traditional doctors genuinely don't have a firm grasp on all that a brain injury entails. When your vestibular system isn't working properly, and your eyes aren't tracking together, your body is constantly trying to figure out where it is in space — is it upright or falling over!?!?

I was fortunate to stumble upon Functional Neurology, after two-and-a-half years of struggling with trying to get traditional doctors to listen to me — and believe me. Rather than take anti-depressants, I wanted to get to the root cause of my dizziness.

Functional Neurology truly saved my life; I was at the end of my rope. I didn't know how much longer I could tolerate feeling the way I had been, especially since no doctor seemed to understand or believe me. Dr. Jeremy Schmoe took one look at me and validated everything I had been saying ... my eyes weren't tracking together and that was exactly what was causing my constant dizziness.

Through a course of exercises over a period of two or three weeks, I was finally catching a glimpse of the old me — the me that had been withering away for two-and-a-half years, the me that had given up hope on ever feeling normal again, the me that knew the medical system needed to take note and listen . . . not just hear, but listen. I finally saw a light at the end of the tunnel, and knew that I was in good hands.

It's important that we listen to our bodies — they will tell us everything we need to know. It's also important to understand that traditional doctors don't necessarily know everything about everything. Many receive less than an hour of training on brain injury, so can we really fault them for not understanding such a complicated condition? It's critical that you look outside the traditional box and seek out alternative healthcare providers who truly do understand brain injuries and how to help you get better. There is always hope ... no matter how far out from your injury you may be.

Peace & Glitter,

Kiner

Dizziness After Concussion: **A Case for Cervicogenic Dizziness**





BY JONATHAN CHUNG, DC

Persistent dizziness and imbalance is a common feature for patients diagnosed with post-concussion syndrome. This is often a difficult symptom to treat medically because dizziness comes in many different forms and can be caused by injuries or illnesses to different parts of the body:

- A feeling of spinning vertigo can be related to crystals being dislodged from the inner ear
- Feeling lightheadedness may be a blood flow issue into the brain from dysautonomia or heart problems
- Feelings of nausea and anxiousness with moving visual scenes and backgrounds can indicate a problem with your eyes and visual system

Contrary to popular belief, many patients who have endured a concussion don't have the spinning feeling of vertigo beyond the day of the initial injury. When it comes to persistent dizziness after concussion, one of the most common presentations is generally a sense of being unsteady and off balance while standing and walking. Many patients will describe the symptom that we call disequilibrium as a feeling of "being off," and they are reluctant to move without the help of a wall, cane, or a loved one's arm for support.

The feeling of disequilibrium can be felt across a wide range of patients. Positional vertigo or chronic vestibular nerve injury can be affected by disequilibrium as well in the immediate aftermath of a concussion. However, if you have gone to a doctor and the tests for your inner ear are clear and the normal time frame for an acute concussion has passed, there's a strong likelihood that the feelings of dizziness are cervicogenic, or coming from the neck.

"Why Doesn't My Doctor Consider Cervicogenic Dizziness?"

Cervicogenic dizziness has a controversial history, and many ENTs and neurologists still say that it doesn't exist. The reason many doctors say it doesn't exist is because, historically, there was no good way to diagnose cervical dizziness.

Most cases of dizziness or vertigo are diagnosed by using specialized tests of the inner ear or brain such as caloric testing, vestibulo-oculography, posturography, rotational chair testing, or vestibular evoked potentials. These tests are sensitive to any loss of function from the vestibular organs inside your inner ear that provide your sense of balance and equilibrium.

When dizzy patients don't have measurable signs of inner ear dysfunction, eye disorders, brain disease, or tumors, there's a tendency to dismiss the patient's complaints as psychogenic, but some doctors and chiropractors find that treating the neck resolves a patients complaint.

While this is great for a patient, it's not great for creating a diagnosis. Naming a diagnosis based on a response to treatment doesn't really work scientifically.

Cervical Dizziness and Trauma

One place that really helped make cervicogenic dizziness a more legitimate entity is the emergence of research on head and neck trauma. Studies on motor vehicle accidents showed that many patients who suffer whiplash often had disequilibrium without any inner ear pathology.

The muscles, joints, and ligaments of the upper neck provide really important sensory information to the brainstem and cerebellum that play important roles in helping to maintain balance and equilibrium. This occurs through a sense called proprioception, the sense of knowing where your joints are in space.

The upper neck, from C1-C3, is really unique in that it provides significant proprioceptive feedback to the brain, more than the rest of the spine. The theory is that the neck joints and muscles provide information about your head movement; this information is compared to the signals that are being sent from the vestibular organs in your ears and visual signals in your eyes.

When the signals among the inner ear, neck, and eyes disagree, it creates a sensory conflict that your brain has to resolve. When it can't resolve it effectively, you will feel dizzy, off balance, or nauseated. The upper neck is one of the most mobile joints in the entire body. The cost of high mobility means that joints in the upper neck are quite prone to injury and instability from high impact forces. The upper neck is susceptible to sprains, strains, and misalignments from blows to the head or a really aggressive acceleration from whiplash.

When you injure these joints, the feedback your brain needs from your neck gets disrupted, which increases your odds of having sensory conflict that will lead to you feeling poorly.

How Do I know If I Have This?

There's still no gold standard test to diagnose cervicogenic dizziness, but whiplash research has given us some tools to determine if a neck injury is influencing your symptoms.

A physiotherapist or chiropractor trained in cervical and vestibular rehabilitation may be able to perform the following tests if you have dizziness.

- Smooth Pursuit Neck Torsion Test a test looking at the smoothness of your eye movements while your body is turned and your head is kept straight.
- Cervical Joint Position Error A test performed with a head laser where your head is placed in neutral, the head is moved to a turned position and the patient returns it back to the neutral position. The amount of error is recorded over several trials.

Abnormalities in one or both of these tests have shown to be more prevalent in patients with dizziness following whiplash compared to patients with no dizziness complaint.

Once you know that your neck is the problem, a welltrained physiotherapist or chiropractor can help restore normal movement and sensation from the neck, and the results can sometimes be fast and dramatic. &

Jonathan Chung, DC is the founder and upper cervical chiropractor at Keystone Chiropractic and Neuroplasticity in Wellington, Florida. Learn more about their cervical vestibular rehabilitation program at www. chiropractickeystone.com



an your Atlas vertebra bear the weight of your world?

Atlas was the handsome mythological gentleman who was slotted to bear the weight of the world upon his broad shoulders. Forever. Just like this myth, the first cervical vertebrae in your spine, your atlas vertebra, was destined since birth to carry the entire weight of your head upon your shoulders.

YOUR ATLAS: Bearing the WEIGHT of Your World



BY KELLY HARRIGAN

Sticks and Stones may break my bones ...

If not broken, they might be slightly out of whack, like your atlas. Whiplash trauma, TBIs, recurring migraines and headaches, all produce chronic complaints. You may have seen specialist after specialist, who tells you your symptoms are all in your head (irony), yet the reality is your atlas vertebra, otherwise known as C1, plays a primary role in your spine and causes a slew of mental and physical symptoms because it is highly susceptible to misalignment from things like whiplash, trauma, or even anesthetic intubation.

Misalignment of the atlas vertebra isn't the first diagnosis that pops out of the traditional medical bag. In fact, it can remain undiagnosed for years. Despite MRIs and X-rays, a slightly out of whack atlas doesn't show up on these diagnostic tools. Further, it may not be something that comes to your physician's mind as the resulting symptoms are common with TBI and other disorders. However, a slight misalignment cascades into an avalanche of negative effects on your musculoskeletal system, and the parasympathetic and circulatory systems, causing further dysfunction and imbalance over time. A misaligned atlas has reduced passage at the base of your cranium for electrochemical impulses, resulting in dysfunctional communication between your brain and your body, leading to neurological deficits. As you know, if your body is not able to function properly serious health problems may arise and your quality of life may feel compromised.

The tipping point ...

Think of your atlas as the balance point on the scales of justice maintaining a proper equilibrium. Any shifting unbalances the weights, causing the scales to list to one side. That's what happens when your two-ounce atlas vertebra shifts, causing your head, which weighs about ten to thirteen pounds, to shift because your head is no longer perpendicular to your spine. No wonder it's susceptible to trauma and whiplash! Your body's center of gravity becomes off balance causing your body's weight to stress one side more than the other. You might feel pain on that side. This stressor can cause dizziness, vertigo, insomnia, digestive issues, skeletal pain, functional short leg, functional scoliosis, excessive inward or outward spine curvature (lordosis and kyphosis), a higher shoulder on one side, painful head rotation, muscle spasms and pain in the back, hips and knees, and more.

So, my atlas bone WAS connected to my hip-bone ...

... in a manner of speaking. In addition to the symptoms above, your atlas connects and affects much more than you think. For example, you might not believe you would have sub-occipital pain with a misaligned atlas, yet with a non-level cranium, the muscles around your eyes remain constantly tense, adjusting your eyesight to remain level with the horizon, compensating for the misalignment. Other vertebrae can become blocked, or subluxated, and may be treated with cortisone shots that have long-term, severe side effects.

Muscles may become rigid due to the constant tension. You may have a compressed lymphatic system and decreased blood flow in the arteries running through the small holes in your vertebrae as they flow from the heart through your neck to the brain, making four turns in your atlas alone, supplying the brain with over two-thirds of its blood.

Compression or disruption here, with a decreased blood flow, means the brain receives less oxygen and nutrients, which can cause hypo- and hyper- tension problems, chronic fatigue, exhaustion, and concentration difficulties. Nerve compression, including compression of the vagus nerve, may cause paresthesia (pins and needles sensations), gastrointestinal disorders, pain and aches, sleep disorders, heart arrhythmias, torpor, cold hands and feet, and a feeling of fullness or pressure in the head.

"As you know, if your body is not able to function properly serious health problems may arise and your quality of life may feel compromised."

Finding an excellent atlas chiropractor takes some research, so put your back into it. (Really, ladies and gentlemen, it won't be the last bad joke). A regular chiropractor with the usual snap, crackle, and pop just won't cut it in this instance. You must find one who specializes in the atlas vertebrae. Up C Spine, www. upcspine.com, is a good resource to start with as it lists all upper cervical chiropractors. [If you're in the mid-Atlantic region, check out www.theannapolischiropractor.com.] However, all atlas techniques are not created equal, and the low force, analytical techniques are recommended. These techniques are called Atlas Orthogonal, Advanced Orthogonal, Orthospinology, Blair, and NUCCA. What's the process?

The effective and precise procedure is non-invasive and requires no medication. You may have a stack of MRIs, X-rays, and CT scans, treatments and medications you have tried that you want to review with the atlas doctor, yet they will perform a thorough and complete diagnostic testing with you. Four X-ray images are taken and used to compile a 3-D vector of correction and proper table placement of the patient. The table placement opens the atlas articulations and presets the spine to fall into alignment. The percussive force leaves the atlas instrument as a compression energy wave that travels down the stylus, into the body and shifts the two-ounce atlas vertebra into proper position. This translates into your doctor having you lay on the table with your neck and head held in place, gently aligning the atlas instrument, a clear tube with a small, steel stylus, which is placed over the precise spot necessary and

utilizes a gentle percussive force to move your atlas into proper alignment. You may not even feel the stylus as it does so.

That's it?!

You may need ongoing corrections over time as your musculature can become tense again over time due to stress, strain, jaw misalignments, mineral deficiencies, sleeping incorrectly, or even a forceful sneeze! Yet, that simple tap is all you need.



Photo Credit to Dr. Marc Schwartz, Atlas Chiropractic, P.C.

Be careful after your atlas is adjusted. No weightlifting, exercise, long commutes, or heavy loads of laundry that night (bonus, in my humble opinion). This is the night you want to schedule your self-care and downtime, as you may feel tired, and you want to allow your body some time to process the release it just had. Relax knowing a short appointment with your atlas chiropractor will resolve your problems and you'll stand corrected.

*Shout-out to Dr. Marc Schwartz at https://www. theannapolischiropractor.com/ for putting up with my humor and providing technical assistance so I didn't have to use the term "thingamabob." &

Kelly Harrigan is a single mum, veteran, TBI survivor with a girl child and a frenchie, oolong tea in hand and humor on hand, who lives in Annapolis, Maryland.





BY KELLIE POKRIFKA

f you are experiencing issues with dizziness and imbalance after brain injury, you may have been told to consider BPPV. But what is BPPV, besides a tongue twister that is almost impossible to pronounce?

BPPV stands for Benign Paroxysmal Positional Vertigo. (Yes, somehow the full term is even more difficult to pronounce than the acronym.) BPPV is the most common deficit to the vestibular system after trauma such as brain injury. It is a constant feeling of movement, even when you're not moving, that occurs due to the crystals in your inner ears.

What are these inner ear crystals? Made up of calcium carbonate, otoconia, as the crystals are called, normally reside within a gel-like substance. When the gel moves, such as when you tip your head back, neurotransmitters send an alert to your brain that you are moving.

The physical trauma of a TBI can cause the crystals to dislodge from their normal position and deposit themselves in semicircular canals within the inner ear. Since they are out of place, they can no longer send appropriate signals to the brain. They send "false alarms," convincing the brain that there is movement even when you are perfectly still. The signals from your vision and musculoskeletal system, though, are telling your brain that you are not moving. The contradicting signals confuse your brain, which reacts by telling you that something is wrong by giving you that dreadful sense of vertigo.

In most cases, vertigo typically lasts less than one minute, although some cases will unfortunately persist until the head is repositioned. BPPV is only affected by movement, so there is no continual sense of dizziness. It will not affect headache, movement coordination, hearing, or fainting.

Luckily, BPPV is effectively treated. Several protocols can be utilized such as the Epley Maneuver, as well as similar procedures like the Semont Maneuver, the Foster Maneuver, and the Brandt-Daroff Exercise. A physical therapist trained in vestibular rehabilitation may be your best instructor about these adjustments. Be sure to consult your doctor(s) before making any changes to your recovery plan.

If you are experiencing BPPV, or other forms of vertigo or dizziness, you should address the issue as soon as possible. These symptoms can dramatically affect your balance, which can be incredibly dangerous. Individuals who reported dizziness are 12 times more likely to fall. Forty percent of all traumatic brain injuries in the US result from falls. On top of that, after sustaining an initial brain injury, a person is more susceptible to additional TBI. Impaired balance is clearly not an issue to be taken lightly. Consult your doctor as soon as possible. &

Kellie Pokrifka is a TBI survivor and works as an intermediary between the experts and the patients with brain injuries.

New Day, Same Symptoms



BY DR. ERIK REIS, DC, DACNB, CBIS

Picture this: You wake up to your alarm buzzing at 6:30 AM, having to hit snooze three or four times before you actually get up due to the amount of fatigue and disorientation you feel. It's going to be another very, very long day.

By the time you muster enough courage to get out of bed, it's time to prepare yourself for what's to come: the first of many moments throughout the day where you perform a simple daily activity that completely alters your world. You weren't always like this, but after your accident, your life has changed and evolved into an endless array of trials and tribulations that never seem to improve, no matter what you do. The more you rest, the more the fatigue sets in. The more you move, the worse you feel. It never stops.

While going from seated to standing may not seem very eventful for most people, it can be one of the most difficult maneuvers performed for those who struggle with vertigo, dizziness, and any other type of disorder that involves the inner ear system.

It's easy to forget how powerful our brain and nervous system is. Case in point: when was the last time you intentionally thought about digesting your food? What about balancing your blood sugar? Do you ever worry about how much blood flow is going to your organs? Or stay up at night wondering about the concentration of oxygen in your blood?

If you answered YES to any of these questions, please come find me. We have a lot to talk about

Our brains control our body, at all times throughout the day, for our entire existence. There are a lot of different processes and mechanisms that go on behind the scenes that are required for us to do mundane tasks and movements. We rarely think about them and, more importantly, take them for granted until we lose them or suffer some sort of injury that alters our functionality.

Dizziness, vertigo, and disorientation are no different. These are common signs and symptoms that patients complain of following an injury, specifically concussions, brain injuries, auto accidents, and various forms of trauma to the body and/or head. While these are relatively well known symptoms, very few individuals suffering from them actually get the proper diagnosis and care needed to find quality, long-lasting solutions to their problems. These symptoms don't have the luxury of specific cookie-cutter treatments and protocols, which is why so many struggle with these debilitating conditions far too long. But it doesn't have to be this way.

"Dizziness, vertigo, and disorientation ... are common signs and symptoms that patients complain of following an injury, specifically concussions, brain injuries, auto accidents, and various forms of trauma to the body and/or head."

All of the symptoms are a part of a bigger picture, which involves a complex and in-depth understanding of the brain, the body, and more importantly, a humble view on realizing how important it is to be able to assess an individual structurally, neurologically, and metabolically. All of these factors may be potentially involved in the creation of symptoms, which is why finding a provider who is educated and trained in these categories is important for finding solutions to your problems. Let me make this very clear: There is not one specific profession or type of practitioner who holds the key to finding these answers. It truly takes a team of individuals who are willing to critically think through your care and help educate you to be able to ask the questions that will eventually get the answers you are looking for.

Keeping this in mind, we must all work together for the better of our patients to promote the highest quality of life ... because I hope, at the end of the day, someone has this same philosophy for my personal healthcare if I ever need to be put back together.

Stay educated! 🙏

Dr. Erik Reis is a Chiropractic Physician and boardcertified Chiropractic Neurologist at The Functional Neurology Center in Minnetonka, Minnesota. He holds a diplomate in neurology from the American Chiropractic Neurology Board and is a certified brain injury specialist (CBIS) with the Brain Injury Association of America.

Story and photos by Amy Zellmer, Editor-in-Chief

Josh Perry Embraces Life After Multiple Brain Tumors

Professional BMXer Josh Perry is living his life with purpose, and inspiring others to do the same.

n 2009 Josh Perry experienced migraines that gradually worsened. Eventually, his vision was impaired to the point of interfering with his professional BMX career. He went to his doctor numerous times, practically begging for an MRI, but the doctor continued to write off his migraine issues as post-concussion symptoms . . . saying they were essentially a hazard of his professional bike-riding career. He was told he was young, healthy, and in good shape and was sent home with pain meds.

He took the pain meds, which caused him to vomit in the car on the way home. He vowed never to take them again. He just wanted answers and was frustrated that, even though he had good health insurance, doctors wouldn't take him seriously enough to schedule an MRI.

In March 2010 while practicing a new trick, Josh fell, hitting his head on the ground, which knocked him out. In the hospital, the fact that he had lost consciousness warranted an MRI. Finally, Josh received answers.

He learned he had a meningioma brain tumor that was pushing on his optic nerve. At age 21, it was devastating news, but it explained so many of the symptoms he had been dealing with for over a year.

Meningioma tumors form on membranes that cover the brain and spinal cord just inside the skull. Specifically, the tumor forms on the three layers of membranes that are called meninges. These tumors are often slow growing and as many as 90% are benign (non-cancerous).

Josh's tumor was benign but quite large, measuring 8cm long by 4cm wide and 4cm deep, suggesting the tumor had been growing for quite a few years. When it began pushing on his optic nerve it caused his headaches and vision problems. Doctors were astounded that he wasn't having seizures, given the size and location of the tumor and the fact that he was able to continue doing tricks and spins on his bike all day, every day.

On April 16, 2010, Josh had surgery to remove the tumor. What was supposed to be a four-hour surgery turned into a six-hour surgery when doctors discovered the tumor had wrapped around an artery and his optic nerve. He was told to lay low, rest for four weeks, and not do anything that would raise his heart rate. When he was cleared to ride again, he slowly got back on his bike. Trainers kept a sharp eye on him as he once again got on the ramp and performed tricks.

It wasn't until several years later, when he was a guest on Dr. Daniel Amen's podcast, that it was brought to his attention that brain surgery in itself is a TBI. He also learned that you don't have to get knocked out to have a concussion.

Eight weeks after surgery he flew to England and took eighth place in his first competition back. Still riding professionally, he made his first final 12 in the Dew Action Sports Series and competed in the top 12 in Las Vegas.

He continued riding and admitted to "fueling myself with alcohol and sugar." In October 2012 Josh was in India performing demos when his mother emailed him that they needed to talk when he got home. The message was vague enough that he suspected it was bad news . . . he had undergone his annual scan right before leaving for India.

The doctor told him he had new tumors the size of blueberries, that it was just residual cell growth and wouldn't require surgery. They wanted to look at treatment options like radiation. Josh felt there had to be a better way, so he went to Dr. Google to do his own research. He learned about Gamma Knife, a laser-based, non-invasive surgery with a 90% success rate. He traveled to Boston's Tufts Medical Center for the treatment, and was able to drive 13 hours home the next day.

In 2017 two additional tumors were found on the opposite side. This time he made the decision not to have surgery . . . he opted instead to make a lifestyle change.

A Keto Lifestyle

After his first surgery his trainers told him to keep hydrated and to drink Gatorade. He drank tons of Gatorade and gained 40 pounds. He didn't realize that when you introduce sugar into your body, you're dehydrating it at the same time. As he made lifestyle changes and shifted into a strict ketogenic diet, he learned more about head injuries and glucose. Josh said, "After a brain injury, glucose uptake goes down. There's a dysfunction of the mitochondria and energy demands go up. Your brain can't use sugar, such as drinking Gatorade. If you don't have ketones in your blood, your brain will suffer. Ketones are neuroprotectants. The brain needs energy (typically glucose), but you don't need to consume it (sugar), your body will make it (ketones)."

Josh began working with Dr. Ryan Lowery, author of The Ketogenic Bible, after his third diagnosis. He knew he didn't want more surgery so he jumped all-in to the keto lifestyle. "I used to love cookies and brownies — now I just make them differently, with coconut flour and non-carb sweeteners."

Hanging up the bike

"When I first started riding after surgery, the first few days were weird, and being on the ramps and moving up and down — the whole body awareness situation was weird. Straightforward tricks were fine, but spinning and flipping took me awhile to relearn what it feels like. It took me awhile to get over it, and I lacked a confidence I had had before. That lasted about a year, and every time I thought I was back to normal — nope!" The last time Josh did tricks as he rode was at the end of January 2020 for the University of North Carolina's men's basketball halftime show, and the Carolina Panthers NFL halftime show.

"When I get on my bike, it's a comfort zone. It's a place of mastery, and I feel good. I've used it as an escape, from a young age, over the course of my life. Now that I am creating a new path in my life, I found that going back to my old comfort zone would take away the confidence of my new purpose. I used BMX until I was 31 in order to do new things. I have to let my past go . . . I am self-aware enough to know that when I take time on the bike, it takes me further away from where I want to go. I love what I am doing now more."

He added that having a hobby is important . . . and he decided to take up bowling. It has helped him craft a new skill and challenge himself. "I grew up bowling and enjoyed it, but then I didn't do it for 18 years. I am able to be competitive without the risk of brain injuries or broken bones."

Challenges

The two biggest moments in Josh's life that challenged all of his beliefs were in 2016 when fellow BMXer and close friend, Dave Mira, took his life, and again in 2018 when his own brother took his life.



"These moments challenged me in all of my beliefs that I share today and advocate for today. I had thoughts such as: I'm living here today with brain tumors — why? Why do anything with my life now? Why does it matter?? They're not here but I'm still here.

"When someone in your immediate life passes, this reality shift happens. You start thinking if I'm going to die one day, why does this matter? I was in a lot of pain in the dark days and had thoughts like I felt like crap, would it still continue if I wasn't alive?"

(Editor's Note: Suicidal ideations affect approximately 30% of those affected by brain injury. Ideation does not equal weakness, nor does it imply the person will follow through on their thoughts. If you or a loved one is contemplating suicide, please reach out to the suicide hotline: by calling 1-800-273-8255 or text 741741 from anywhere in the USA to connect with a trained crisis counselor).



Embracing Life

Josh now spends his time inspiring others. He is a sought-after speaker in the keto world, and kicked off his speaking career at the Durham Academy and the University of Florida back to back in April of 2018. He also coaches people who want to improve their health — mentally and physically. His first book, due out at the end of the year, was written to help people shift their lifestyle and mindset.

The very first time he wrote down any part of his journey was in 2011 when he was in Iraq. "I was on a C130 flying around Iraq in a legit war zone performing for the troops. I wrote a blog post on my iPhone, hoping to publish it in BMX magazine. It took me three years to finally share it on my own blog: dailybrainstorms.com . . . the blog is no longer active now that he's writing his book; however, he still links to that original post often in his Instagram posts.

After surviving brain surgery and multiple brain tumors, he has learned to move past fear and live with intention. Through all he's been through he has come out on the other side with more clarity and peace. He says, "It's not work when you love doing it."

Dr. Ryan Lowery

fter his third diagnosis, Josh reached out to Dr. Ryan Lowery, author of The Ketogenic Bible. "I quickly found Josh to be highly adaptable and now he is teaching others how to make the switch to a keto lifestyle," stated Dr. Lowery.

Dr. Lowery has been studying ketosis for over ten years. He has found that when your brain has been injured its need for fuel and oxygen goes up, and most people think that means glucose. But research has shown that your brain is somewhat insulin-resistant after an injury, and doesn't utilize glucose effectively during this period.

He added that football players are often seen drinking sugary drinks on the sidelines, and believes the rate of CTE wouldn't be as high as it is if people were utilizing ketones instead of sugar. They've found that exogenous ketones are the quickest way to get fuel to the brain, as those transporters are still working, whereas glucose transporters are impaired.

He has four easy steps to get started with a keto lifestyle:

- Minimize processed foods. Whether you are going full keto or not, avoid processed foods high in sugar and carbohydrates. Instead, focus on eating whole foods.
- Eat green leafy vegetables such as broccoli, spinach, green beans, and asparagus.
- Eat quality protein from whole eggs, fish, and meats such as steak and chicken.
- Consume quality fats don't be afraid of quality fats. Add butter or ghee on your steak, or avocado to your salad.

He added that you don't have to be perfect; just be the best you can be with it. The most important thing is knowing that there are always alternatives. "Don't stress out if you have a birthday and want a piece of non-keto cake. It's OK just get right back on track afterwards," said Lowery. \$



Find more about Dr. Lowery at www.ketogenic.com

Get Grounded with Black Tourmaline



BY KRISTEN BROWN

hen you're feeling scattered or suffering spells of dizziness or brain fog, it's black tourmaline to the rescue!

This gorgeous stone is perfect for grounding you when you are feeling off-balance or unfocused due to a brain injury, illness, or just the everyday stress and busy-ness of life.

Why? Black tourmaline "keeps an electric charge, as it is pyroelectric (meaning it can generate electricity when heated), as well as piezoelectric (meaning it can store an electrical charge), causing it to release negative ions and far infrared radiation — these are very beneficial for health." (ShamanSisters.com) When a stone has these types of properties you know its healing powers will be superstrong!



Here are three awesome benefits of black tourmaline and ways to use them at work and at home.

- **Balance-Builder** Known for balancing yin-yang energy, syncing the left and right sides of the brain, and for grounding black tourmaline is the perfect stone if you're suffering from physical dizziness, emotional turmoil, or mental fog. Invest in a larger piece of black tourmaline and keep it at your desk or in your home where you spend the most time.
- 2 Negativity-Fighter This stone is a master of repelling bad vibes from the environment and people! Keep a piece of black tourmaline on you when you're going into crowded places or will be around someone who triggers your stress response.
- 3 Mentality-Superstar When anxiety, OCD, fear, claustrophobia, or other mental afflictions are taking over, black tourmaline can help calm the overactivity of thoughts and feelings that can spin out of control. Wear it as jewelry to maintain a consistent level of energetic healing and grounding throughout the day.

The power of black tourmaline makes it a key part of everyone's healing and wellness toolkit! λ

Kristen Brown is a bestselling author, keynote speaker, and energy medicine practitioner who charges up her clients by syncing up their body/mind/spirit for work and life growth.

Yoga: Triangle Pose

BY AMY ZELLMER, EDITOR-IN-CHIEF HEALTHY LIVING



oga is a powerful tool for recovery after brain injury. Contrary to some beliefs, EVERYONE can do yoga — you don't need to be super flexible, have great balance, or even be able to stand up. The beauty of yoga is that every pose can be modified so that anyone can be accommodated.

An important aspect of yoga is the breath. Connecting the breath to your body and flow, and getting oxygen flowing to your brain, is what makes it so powerful for recovery. Yoga is also a time to quiet the mind, letting anxiety and distracting thoughts drift away.

Triangle Pose (Utthita Trikonasana) is a standing pose that allows us an opportunity to focus on stability while we expand. In Sanskrit the word "Utthita" means "extended," the word "Trikona" means "triangle," and "Asana" means "pose." It is a therapeutic post that provides many benefits including reducing anxiety and opening up the chakras.

Some of its many physical benefits include the stretching of legs, muscles around the knee, ankle joints, hips, groin muscles, hamstrings, calves, shoulders, chest, and spine. It also strengthens legs, knees, ankles, abdominals, obliques, and your back and helps stimulate the function of abdominal organs. It also helps relieve stress can improve digestion, and alleviate back pain.

Instructions:

- 1 Start in Warrior II pose with your right foot forward.
- 2 Straighten your front knee and keep a micro-bend in the knee so it does not lock.
- 3 Exhale while sending your left hip toward your back foot, and hinge forward toward the front of your mat.
- 4 Place your right hand on the ground, block, or shin. Reach your left hand toward the sky.
- 5 Gently pull your left ribs back as you encourage your right ribs forward. Both sides should feel equal in length.
- **6** Draw your tailbone down toward your left heel.
- 7 Take your gaze toward your top hand if it feels comfortable on your neck.
- 8 Hold the pose for 30 to 60 seconds. Use an inhalation to bring yourself back up, rooting through the back heel, using it as an anchor.
- 9 Change the position of the feet and repeat on the opposite side.

Adjustments and modifications:

- Place your hand on a block next to your front leg to help keep length in the spine.
- Avoid forcing the hips to be squared.
- Micro-bend your front knee to prevent it from locking.
- Look to the side or down rather than looking up to prevent strain in your neck.
- Practice the pose with your entire body supported against a wall.
- If you are interested in learning more about yoga, check out

www.loveyourbrain.com and their yoga programs throughout the U.S. at partner studios, which are completely free to brain injury survivors and caregivers. &



Lavender and Lavender Vitality BY AMY ZELLMER, EDITOR-IN-CHIEF HEALTHY LIVING

ssential oils are a complementary tool that can help
you achieve a healthy lifestyle. They are easy to use,
smell great, and are versatile.

All oils are not created equal. Young Living is the only brand I personally trust, because I know they have complete control over their product from seed to seal. Oils sold at health food stores can be misleading. Since they are not regulated by the FDA, the labels may say they are 100% therapeutic grade oils when they are not. You must look closely at the labels. If the ingredients list anything other than the plant stated, or if the label has statements like "For external use only," "For aromatic use only," and/or "Dilute properly," the oil inside that bottle may have been cut with other oils, synthetics, or chemicals.

Lavender

Lavender (Lavandula angustifolia) essential oil has a scent that is a wonderful blend of fresh, floral, clean, and calm. It's a dynamic aroma that has made the plant a classic for perfumes, soaps, fresheners, and beauty product for centuries. Lavender is a great beginner oil for those just starting to explore their benefits. It's a must-have for every home. Lavender essential oil isn't just a favorite because of its classic scent — it's also highly versatile. From skin care products to relaxing routines, lavender oil can infuse and enhance many areas of your life.

Lavender Vitality

Are you ready to add a unique and sophisticated flavor to your recipes? Look no further than Lavender VitalityTM essential oil. Lavender, a Young Living favorite used all over the world for aromatic and topical uses, now comes in a dietary application called Lavender Vitality. This celebrated oil offers a hint of elevated flavor to recipes and a wealth of dietary benefits as a supplement. Add a touch of Lavender Vitality in chicken and lamb marinades, or add a drop or two to cake batters and lemonades. This essential oil will add a sweet and slightly floral flavor that will be hard to forget! \$

The MIND Diet for Improved Cognition

HEALTHY LIVING



BY SIERRA FAWN GUAY MS, RDN, LDN, CBIS

esearchers around the world have worked to better understand the relationship between nutrition and cognition. Though this research is still in its infancy, a great deal of progress has been made over the past few years. In 2015, M. C. Morris and colleagues published research to show that a particular way of eating (referred to as the Mediterranean-DASH Intervention for Neurodegenerative Delay or MIND diet) may help preserve cognitive function with age (1). Though the data used in this study was collected from individuals with no or mild cognitive impairment, and not from those with traumatic brain injuries, the MIND diet presents a promising framework for improving brain health and longevity. Therefore, it is likely to be of great interest to survivors of traumatic brain injury.

"The MIND diet presents a promising framework for improving brain health and longevity."

The MIND diet is a hybrid of the popular Mediterranean diet and the Dietary Approaches to Stop Hypertension (DASH) diet, which are both used to improve heart health. The MIND diet is the first of its kind to address brain health, and incorporates components of the Mediterranean and DASH diets such as encouraging intake of vegetables and discouraging intake of red meats. Unique to the MIND diet is the specification to eat leafy green vegetables and berries. Additionally, the MIND diet recommends at least one serving of fish per week (compared to the Mediterranean diet which recommends six or more servings) and does not specify dairy intake (which is emphasized in the DASH diet).

The MIND diet encourages the consumption of several brain-healthy foods, which are: olive oil (used as the primary cooking oil), whole grains (at least three servings per day), green leafy vegetables (at least six servings per week), other vegetables (at



least one serving per day), berries (at least two servings per week), fish (at least one serving per week), poultry (at least two servings per week), beans and legumes (at least three servings per week), nuts (at least five servings per week), and wine (one glass per day; note that alcohol may not be appropriate for survivors of brain injury and should only be consumed with physician approval).

The MIND diet encourages decreased consumption of several unhealthy foods, which are: red meats (fewer than four servings per week), fast and fried foods (less than one serving per week), butter and margarine (less than one tablespoon per day), cheese (less than one serving per week), and pastries and sweets (fewer than five servings per week). To learn more about the MIND diet, refer to Dr. Morris's book Diet For The Mind, which includes several brainhealthy recipes. Currently, more research is being done to help better understand the relationship between the MIND diet and cognition. One large clinical trial is expected to end in April 2021.

Interested in incorporating components of the MIND diet into your life? Try the recipe below to eat more whole grains, berries, and nuts!

Sierra Fawn Guay is a registered dietitian who works with brain injury survivors in Greenville, North Carolina.

WHAT IS QUINOA?

Quinoa is an ancient grain that is easy to use in both sweet and savory recipes. Quinoa is rich in protein, vitamins, and minerals.

Brain Healthy Breakfast Quinoa

Ingredients:

- ¹/₂ cup quinoa, rinsed
- 1 cup oat milk
- 1 tsp cinnamon
- 2 tbsp toasted pecans, chopped
- ¹/₄ cup blueberries (or other berries)
- Touch of maple syrup or honey

Instructions:

In a small sauce pan, add quinoa and oat milk. Bring to a boil. Reduce heat and simmer for 15 minutes or until quinoa is soft and outer germ has spiraled away from the seed. Remove from heat. Fluff with fork and transfer quinoa to a bowl. Mix cinnamon into quinoa. Top with remaining ingredients. Serve hot.



Enjoy!



With Minnesota Congresswoman Angie Craig who agreed to join the Congressional Brain Injury Task Force.



Meeting with Congresswoman Angie Craig and her healthcare staffer, Meryl Harold.



Giving Minnesota Senator Tina Smith a copy of the magazine.



With BIAC member Kelly Lang from Virginia.



With TBI lawyer Michael Kaplen from De Caro & Kaplen LLP.



BY AMY ZELLMER, EDITOR-IN-CHIEF



With advocate Cindy Daniel from North Carolina.



With Director of Consumer Services for the BIAA Greg Ayotte.



With BIAC member Angela Leigh Tucker from North Carolina.



With Professor Dr. Alison Fedio at the Chicago School of Professional Psychology in Washington DC.

arch was Brain Injury Awareness Month and Wednesday, March 4th was Congressional Brain Injury Awareness Day at the Nation's Capitol in Washington DC. I had the pleasure of meeting with my Minnesota Legislators and sharing my TBI story, as well as reconnecting with TBI friends and colleagues from across the US. \clubsuit



With BIAC member and magazine contributor Kellie Pokrifka from Virgina.



Standing in front of our Nation's Capitol in Washington DC.



With fellow TBI survivor Frank Notaro from Pennsylvania.



With Rebecca Quinn, Executive Director of the North Dakota Brain Injury Network.



With Caitlin Exline Starr, Manager of Support Services for the Brain Injury Association of Maryland.



With Big Tim Valentin and Todd Kemery from the Paralyzed Veterans of America, Minnesota Chapter.

What is Making Me **Dizzy**?



BY MARIAH MORGAN PT, DPT, CBIS

Dizziness, the sensation of spinning around or losing one's balance, is a common symptom following a brain injury (concussion, stroke, brain bleed, etc.). While symptoms of dizziness are common among brain injury survivors, many are not aware of why they are experiencing them or where to seek help.

Following a brain injury, two systems in the body are often affected, vestibular and visual. If one, or both, of these systems are impaired, symptoms of dizziness will likely occur.

Vestibular System

The vestibular system is located inside our inner ear and aids us in maintaining our balance and regulating our posture with our surrounding environment. It tells us information about spatial orientation, our head position, and motion. The vestibular system allows us to recognize when we are standing or lying down, when an elevator goes up or down, when a car accelerates, etc.

If your vestibular system is not functioning correctly, you may:

- Feel like you are on a boat;
- Feel unsteady;
- Have difficulty walking in the dark or on uneven surfaces (i.e., grass); and/or
- Have dizziness or vertigo when turning your head or changing position (i.e., laying down or sitting up).



Visual System

The visual system gives us the ability to you guessed it see! It allows us to track a moving target (watch a ball move across a field) and enables us to jump from one target to the next (changing lines when reading). The visual system is also one of the three sensory systems that help us keep our balance.

If your visual system is not functioning correctly, you may experience:

- Eyestrain;
- Headaches; and/or
- Dizziness with eye movements (when the head is not moving).

Symptoms of a visual system that is not correctly functioning may include difficulty reading, working on a computer, tolerating a busy environment (like a grocery store), and more.

Vestibular, Visual, or Both?

While some may experience only vestibular or visual dysfunction in isolation, it is common for both to occur following a brain injury. If vestibular or visual symptoms are occurring, an evaluation from a brain injury provider may help to identify the causes. Following an exam done by a professional, an individualized treatment plan can be created to improve the functioning of both systems and to, ultimately, decrease dizziness.

For anyone struggling with dizziness following a brain injury, there is hope! Dizziness can be treated. If you have a brain injury and are struggling with dizziness, connect with your doctor. Your doctor can then connect you with a brain injury professional who can create a customized treatment plan for you.

Mariah Morgan is a Physical Therapist and Certified Brain Injury Specialist at Origami Brain Injury Rehabilitation Center, a CARF accredited 501(c)(3) nonprofit organization. Origami provides comprehensive rehabilitation for adolescents and adults with neurological dysfunction through their residential, outpatient, and community based programs. With their compassionate and innovative services, Origami creates opportunities and transforms lives. Learn more at OrigamiRehab.org.

LEGAL CORNER

THE MANY FORMS OF VESTIBULAR DISORDERS



BY JAMES A. HEUER, PA

n the course of our legal practice, we have met many clients who suffer from vestibular disorders, resulting from injuries that typically occur in a car crash or a fall when the individual strikes their head on either a part in the car, such as the dashboard, steering wheel, or headrest. It also happens when the injured individual strikes their head falling onto hard pavement, stairs, or a wall.

Also, though, many clients have reported the vestibular disorders follow a crash in which they were restrained by a seat belt and shaken violently by the impact of the vehicle. These are often referred to as whiplash injuries, an injury to the neck, but they are really a sudden acceleration/ de-acceleration-type situation, which can result in a brain injury, such as a concussion or, as we discuss below, the many types of vestibular disorders.

The vestibular system, which includes the inner ear and brain, helps control the body's balance and eye movements. It can be injured by trauma, disease, and/or aging. Vestibular system disorders can vary from person to person and patients can have one or more diagnoses at the same time, which can make treatment challenging.

The most commonly reported symptoms include the following:

- Vertigo and dizziness a whirling/spinning feeling
- Balance challenges while walking, clumsiness
- Vision sensitivity to lights, trouble focusing
- Hearing complications ringing in the ear (tinnitus)
- Cognition changes challenges with focus, confusion, forgetfulness



"Amy is a prime example of how powerful and life-changing combining personal experience, passion, and advocacy can be."

- Ben Utecht, 2006 Super Bowl Champion and Author

Want to learn more about Amy's journey? Purchase her books on Amazon!



Embracing the Journey



The following diagnoses and definitions can help to understand how many vestibular disorders are currently recognized.

- Acoustic Neuroma/Vestibular Schwannoma: a tumor that is typically non-cancerous that develops from the balance and hearing nerves that supply the inner ear
- CANVAS Syndrome: cerebellar ataxia neuropathy vestibular are the terms that make up the acronym. This is an extremely rare condition
- Enlarged Vestibular Aqueduct (EVA): the aqueduct is a tiny canal that connects the inner ear space to the brain, if enlarged, it can cause hearing loss and lead to other change
- >> Meniere's Disease: a chronic inner ear disease that causes an abnormally large amount of fluid to collect in the inner ear
- >> **Perilymph Fistula:** a tear/defect in the thin membranes that separate the air filled middle ear and the fluid filled perilymphatic space allowing liquid to leak into the middle ear
- >> Tinnitus: an abnormal noise that can be perceived in one or both ears. It is very common and can be described as ringing, whistling, buzzing or clicking sound
- Age-related dizziness and imbalance: great risk for fall in the elderly
- >> Central Vestibular Disorders: the major symptoms with this diagnosis are vertigo, unsteadiness, and dizziness
- General Vestibulopathy: a disorder that is characterized by dizziness, nausea, imbalance and vision problems
- >> Neurotoxic Vestibulopathy: a poisoning (mercury/ lead) of certain cells in the area of the brain – common symptoms are dizziness, vertigo and fatige
- Persistent Postural-Perceptual Dizziness (formerly CSD): formerly called chronic subjective dizziness. This type of disorder can trigger rocking, swaying and/or dizziness with moving stimuli (crowds/stadiums)
- >> **Hyperacusis:** perception of sensitivity to noises and/ or tones. This condition causes sound vibrations to be exaggerated for example a quiet library may sound like a circus with a person with hyperacusis.
- Autoimmune Inner Ear Disease (AIED): the immune system "attacks" the ear
- Cervicogenic Dizziness: syndrome of neck pain with motion/disequilibrium concerns
- >>> Labyrinthitis and Vestibular Neuritis: infection/ inflamation of the inner ear to the brain
- >>> Otosclerosis: the abnormal growth of the middle ear bone

- Secondary Endolymphatic Hydrops (SEH): it is believed to result from abnormalities in the pressure/ composition in the compartment in the inner ear
- Benign Paroxysmal Positional Vertigo (BPPV): the most common type of vertigo and leaves the person with a false sense of spinning
- >>> **Cholesteatoma:** *a skin growth that is found in the middle ear behind the eardrum*
- Mal de Débarquement: short for sea sickness return to normal environment (following a boating trip) but still feeling
- >>> Ototoxicity: ear poisoning from exposure to certain chemicals that damage the inner ear or the nerve responsible for sending balance and hearing to the inner ear and brain
- Superior Canal Dehiscence (SCD): is where an opining in the bone occurs in the inner ear-patients experience vertigo and a condition called oscillipsia which is the feeling that the surrounding environment is moving yet it is actually stationary
- Bilateral Vestibular Hypofunction: off-balance feeling and unusual sensations when head movement
- >> Concussion: a head injury that can be complicated by vestibular involvement causing many symptoms such as balance, vertigo, etc.
- » Migraine Associated Vertigo (MAV) or Vestibular Migraine: pain, pounding/throbbing, sensitivity to light, noise, nausea and vomiting
- Pediatric Vestibular Disorders: disruption of vestibular system in children can result in vertigo, dizziness, gaze instability, and/or balance and motor activity
- >> Vestibular Paroxysmia: a disorder that has a high frequency of attacks. Spinning, tinnitus which is typically only one ear, sensitive to sound, unsteadiness, and usually chronic lasting greater than 3 months

There are multiple diagnostic tests that your treating provider can do to determine what type of vestibular injury you are experiencing. Treatment for vestibular dysfunction depends on symptomology, medical history, medical exam and diagnostic testing results. These assessments and findings will be reviewed by a qualified physician to determine definitive diagnosis(es).

If conservative treatment measures such as vestibular rehabilitation therapy, home-based exercise, and dietary changes do not lessen your symptom, surgery is a viable option to correct and restore the inner ear function. &

James A. Heuer, PA is a personal injury attorney helping individuals with TBI after suffering one himself, he is located in Minneapolis, Minnesota.

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Transcend Your Mind

"Transcendental Meditation significantly reduces common TBI symptoms like headaches, fatigue, poor concentration, and helps to stabilize emotional lability, which led to improvements in social awareness, anxiety, irritability, and sleep."





BY KELLY HARRIGAN

ffortless. That is exactly what's needed by people who live with a Traumatic Brain Injury (TBI) — a therapy that is effortless and effective! Because let's face it, mosttherapies, treatments, medications, or other paths to improvement often feel like the cure is worse than the injury.

Meditation techniques have gained acceptance as alternative or complementary health treatments in the past few decades. Transcendental Meditation, a unique form of meditation, offers an alternative approach that has significant physiological, behavioral, and psychological benefits, leading to increased brain coherence and function while reducing toxic stress and trauma. In fact, published research shows that Transcendental Meditation significantly reduces common TBI symptoms like headaches, fatigue, poor concentration, and helped to stabilize emotional lability, which led to improvements in social awareness, anxiety, irritability, and sleep.

Is this where I levitate surrounded by candles?

No. But this is where you might find some physical relief and improved mental wellness. TBI survivors, and caregivers, often suffer from higher stress, anxiety, depression, insomnia, high pain levels, and Post Traumatic Stress Disorder (PTSD). Transcendental Meditation, or TM, has been shown to effectively mitigate these symptoms, demonstrating a physiological reaction in the brain. Normal E. Rosenthal, MD, renowned medical researcher and psychiatrist, and best-selling author of *Transcendence: Healing and Transformation through Transcendental Meditation*, reported that a small study showed an increased blood flow to the brain while meditating. Increased blood flow means better nutrition for your brain, which in turn enhances your blood's ability to transport oxygen to your brain cells while keeping blood sugar levels stable.

As I mentioned, TBI can go together with PTSD, like peas and carrots, leaving your nervous system in a constant state of fight or flight. Jumpiness is a hallmark trait of those afflicted with PTSD. TM soothes your brain, creates a calm space within, and reduces reactivity to stimuli that leaves you feeling frazzled. TM promotes brain wave coherence, essentially making the brain's regions march more or less in sync. As these regions play nicely in the sandbox with each other, you're able to have increased focus and attention, a great sense of calm and well-being and, perhaps, better decision-making. You may experience a reduction in pain levels and nervousness, and in some cases a decreased need for medications. This can happen after a few short weeks of practicing TM. Over time, these effects will spill over into non-meditation time.

"Transcendental Meditation soothes your brain, creates a calm space within, and reduces reactivity to stimuli that leaves you feeling frazzled."

For some in-depth research, check out the David Lynch Foundation for Consciousness-Based Education and World Peace, which was started in 2005 "to ensure that every child anywhere in the world who wanted to learn to meditate could do so. Now, the Foundation is actively teaching TM to adults and children in countries everywhere." If you don't believe what you're reading, follow some fellow TM celebs . Ellen DeGeneres proves she's still relatable and au courant with wellness trends. Laura Dern has been practicing since she was 19-if you've seen The Marriage Story you might know why TM would be great for stress reduction. Rumor has it Tom Hanks, arguably one of the greatest actors ever, picked up TM to help combat work fatigue after a reliable rec from pal, Jerry Seinfeld, who is a TM poster child. Members of The Beach Boys, including Mike Love, get their daily Good Vibrations from TM practice, while Wolverine himself, Hugh Jackman, proves that TM can tame the beast.

If they can do it, so can I ...

... with the help of a specially trained, certified instructor. TM, practiced by over five million people worldwide, does require a course taught by a trained,

certified instructor, which I know is a PITA for most people, but trust me, you're worth it. You meet with your TM teacher for a general introductory lecture, followed by another lecture exploring TM in greater detail, and a few hours of personal instruction over the span of a few days. You then have a short and sweet ceremony in which you're given your unique mantra—you should never share that with anyone. Let that be the secret you carry to your grave.

TM doesn't require a dedicated room, incense, candles, or any other accoutrements, although you're free to design and create a space. Because accessorizing

TM also doesn't require specific religious, philosophical, or cultural beliefs. TM is a simple and natural technique. You sit comfortably with your eyes closed for approximately twenty minutes and silently repeat your special mantra. Make time for this twice daily. "I don't have that much time!" you exclaim. Take a well-deserved coffee break at work, park in the school parking lot while waiting for pickup time, or step back from your neverending social media feed. Doctor running late at your appointment? Take the opportunity to fit in a quick TM session. Be creative in carving out this time for yourself.

If your thoughts stray during your TM session, that's fine. Simply bring your focus back to your mantra. Over time, you are easily able to do this, transcending ordinary thoughts and achieving stillness, rest, order, perhaps even a state of pure consciousness. And pure bliss.

Kelly Harrigan is a single mum, veteran, TBI survivor with a girl child and a frenchie, oolong tea in hand and humor on hand, who lives in Annapolis, Maryland.

SUGGESTED READING





STRESS MANAGEMENT: SELF-CARE



BY SUE WILSON, MA, ATC/L, PES, CHHC

Self-care is critically important as a caregiver, a patient, a friend or a family member. Often, we get so wrapped up in the medical process and rehabilitation that we forget the cornerstones of health.

Ask yourself, "Do I take care of myself?" Then ask, "In what ways do I take care of myself?" That's a bit trickier to answer.

Self-care is any activity that we do deliberately to take care of our mental, emotional, and physical health. In theory, it's a very simple concept but a hard one to implement.

Self-care can be a bit hard because sometimes we feel like we don't deserve it, or it is viewed as a selfish act. Self-care is anything but selfish. It is a routine that takes place to ensure you are creating the best possible version of yourself for you and others.

Self-care should also refresh and renew you, never drain and exhaust you. Below are a few helpful hints on how to start your self-care routine today. Make a commitment to yourself to improve your self-care skills because you deserve it! Remember to start slow, with the basics, and over time you will develop a routine that works for you and your lifestyle.

"Make a commitment to yourself to improve your self-care skills because you deserve it!"

It is important to realize that self-care needs to be planned on the calendar like other events in your life. It might be beneficial for you to share your self-care plans with others to help you with your routine and stay accountable. It might be helpful for you to purchase a \$1.00 notebook to help track your success.

Tips for your self-care plan:

- Be aware of what you do, why you do it, how it feels, and what the outcomes are.
- Create a "no" list, with things you know you don't like or you no longer want to do.
- Promote a nutritious, healthy diet. Drink plenty of purified water throughout the day.
- Get enough sleep. Adults usually need 7-8 hours of uninterrupted sleep each night.
- Exercise increases serotonin levels, leading to improved mood and energy.
- Use relaxation exercises and/or practice meditation. You can do these exercises at any time of the day. Search Google for some amazing suggestions
- Spend enough time with your loved ones and laugh a lot.
- Do at least one relaxing activity every day, whether it's taking a walk or spending 30 minutes in a devotional, cooking a great meal, having coffee with friends, or planning a pleasurable outing.

Sue Wilson received her master's degree in Exercise Physiology from Minnesota State University, Mankato. She is a Certified Holistic Health Coach, a Certified Athletic Trainer, and a loving mother of two. She's on the board of directors for CTE Hope, and is dedicated to helping improve the lives of those who have been affected by concussion and brain injury.

Life Lessons Learned from a TBI

BY AMY ZELLMER, EDITOR-IN-CHIEF

fter spending a week in Washington DC for Brain Injury Awareness Month, I took some time for myself in Myrtle Beach, South Carolina. Throughout the entire trip, I kept a close eye on the pandemic that was unfolding in the US.

I decided to extend my stay in Myrtle Beach to give me a full 14 days between being in DC and arriving home, where I live with my 82 year old parents, one of whom is going through chemo for multiple myeloma. I felt my greatest risk of exposure had been in DC where I was around large crowds of people, and the recommended self-isolation period was 14 days.

Upon returning home I created an online TBI Tribe meetup via Zoom and over 80 members joined me on that first call. The topic most discussed was how TBI survivors were already prepared for self-isolation, as we have been doing it, sometimes for years, since our injuries.

However, we also agreed that choosing to stay home is a whole lot different than not having a choice to leave whenever we want. In the early days of my recovery, I took solace in walking around Target for an hour or two ... just to get out of the house and get in some steps (my accident was during the winter months in Minnesota: walking outdoors wasn't an option).

The moral of the story: it's ok to feel all the feels during this time of chaos. Our lives have been disrupted in ways we have never experienced before. Your feelings and emotions are yours to experience in whatever way you need to. It is important to take care of your own mental and physical health during these stressful times, and it is always OK to reach out for help and support when you need it. &



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PODCAST

Faces of TBI www.facesoftbi.com/podcast-series

the functional neurology center[™]

TheFNC team works with patients from around the world. They are experts in Neuro-Recovery and experienced in working with:

- * Complex Concussions
 - * Dysautonomia
 - · POTS
 - * Vertigo
 - * Dizziness
 - * Balance
 - * Migraines
 - * Whiplash
 - * Chronic Pain
 - * Brain Fog



Dr. Jeremy Schmoe, DC, DACNB Founder and Clinic Director

Call to schedule your one or two-week intensive.



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Locations in Minnetonka, Minnesota & Malta, Europe