

# THE BRAIN HEALTH MAGAZINE

**Neuroplasticity** and **Meditation**

**BREATHING**  
*for the* **BRAIN**

**YOGA**

*for Mind, Body,  
and Spirit*

Living Your Best Life After Brain Injury | May/June 2022

THE  
**MINDFULNESS**  
ISSUE

MAY/JUNE 2022  
VOLUME 4 | ISSUE 3

**EDITOR-IN-CHIEF**  
Amy Zellmer

**GRAPHIC DESIGNER**  
Heide Woodworth

**COPY EDITORS**  
Lynn Garthwaite  
Ian Hebeisen

**CONTRIBUTORS**  
Kristen Brown  
Jonathan Chung, DC  
Ian Hebeisen  
James A. Heuer, PA  
Dr. Shane Steadman,  
DC, DACNB, DCBCN, CNS  
Deborah Zelinsky, OD  
Amy Zellmer

**EDITORIAL BOARD**  
Emily Acers  
Carrie Collins-Fadell  
Lynn Garthwaite  
Rebecca Quinn  
Heide Woodworth

**PHOTOGRAPHY**  
Amy Zellmer

**PUBLISHER**  
Faces of TBI, LLC

## FOLLOW US ONLINE!



FACEBOOK  
@thebrainhealthmag



INSTAGRAM  
@thebrainhealthmag



TWITTER  
@brainhealthmag



PINTEREST  
@thebrainhealthmag

# Contents

- 04 Neuroplasticity and Meditation
- 06 Breathing for the Brain
- 10 Yoga for Mind, Body, and Spirit
- 12 Setbacks After Brain Injury
- 16 Mindfulness Proving Powerful for Injured Brains
- 18 Mentally Mindful
- 20 Art as a Means of Mindfulness
- 24 Brain-Boosting Yoga
- 26 Mindfulness is Important for Your Workout



Cover Photo: Audrey Nicole Photography

*The Brain Health Magazine*® (ISSN 2688-6057) is a bi-monthly publication with 6 issues each year. To order a subscription, visit [www.thebrainhealthmagazine.com](http://www.thebrainhealthmagazine.com). For address changes or advertising information, please email: [hello@thebrainhealthmagazine.com](mailto:hello@thebrainhealthmagazine.com).

2000 Forest Street | Hastings, MN 55033 | [www.thebrainhealthmagazine.com](http://www.thebrainhealthmagazine.com)

### DISCLAIMER: THIS MAGAZINE DOES NOT PROVIDE MEDICAL ADVICE

All content found in this magazine including: text, images, or other formats were created for informational purposes only. The Content is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition. Do not disregard, avoid, or delay obtaining medical or health related advice from your health-care professional because of something you may have read in this magazine. The use of any information provided on this site is solely at your own risk.

If you think you may have a medical emergency, call your doctor, go to the emergency department, or call 911 immediately. The Brain Health Magazine, Faces of TBI, LLC, their team, or editorial board does not recommend or endorse any specific tests, physicians, products, procedures, opinions, or other information that may be mentioned in this magazine. Reliance on any information provided by The Brain Health Magazine, Faces of TBI, LLC, their team, or editorial board, contracted writers, or medical professionals presenting content for publication to The Brain Health Magazine is solely at your own risk.

This information is NOT intended as a substitute for the advice provided by your physician or other healthcare professional.

Results presented in our magazine are specific and not typical. Articles are submitted by contributors and do not necessarily reflect the views of The Brain Health Magazine, Faces of TBI, LLC, their team, or editorial board. This information is not intended to replace or be a substitute for conventional medical care or encourage its abandonment.

Things stated or posted on our sites or made available by us are not intended to be, and must not be taken to be, the practice of medical care or the provision of healthcare treatment, instructions, diagnosis, prognosis, or advice. This magazine may contain affiliate links.

©2022 Faces of TBI, LLC

I am so excited about this issue on **MINDFULNESS**.  
It helped not only in my recovery, but in my everyday life.

## FROM THE EDITOR

**L**earning to focus on the present moment — the right-here-and-now — instead of worrying about what you have to do later, or whatever it was you did earlier, has a remarkable way of keeping us focused, calm, and present.

There are many ways to practice mindfulness, including meditation, movement, visualization, yoga, breath work, and more.

It's natural for our minds to wander, and for unwanted thoughts to take over. It's how we handle these thoughts that make all the difference. By realizing we don't have any control over what already happened and learning to live in the present moment, we free ourselves from unnecessary stress and anxiety.

**"There are many ways to practice mindfulness, including meditation, movement, visualization, yoga, breath work, and more."**

I personally love to start my yoga classes with some grounding and mindfulness. Reminding everyone to just be in the present moment and not worry about what's next or what we worked on prior to class. As we move through our yoga practice and focus on the poses, movement, and breath, it is easy to be in the present. I say "easy," but don't get me wrong — it still takes practice to get there.

While some may immediately resonate with mindfulness and be able to practice it effortlessly, others need to work at it and make a conscious effort. No matter where you fall on this spectrum, know that mindfulness will have a profound effect on your mental health and focus.

In the pages that follow you will read some great articles on how to practice mindfulness, and the science behind it. You can use a lot of great YouTube videos and guided meditation apps to help you learn and continue to practice this important intention.

As your practice grows, you will notice it becomes easier to overcome anxious thoughts and to get yourself into a more concentrative state of mind. 🌿



**AMY ZELLMER, EDITOR-IN-CHIEF**

@amyzellmer







# Neuroplasticity and Meditation



**BY DR. SHANE STEADMAN,  
DC, DACNB, DCBCN, CNS**

**W**e often think of meditation as a metaphysical or religious practice. Many use activities such as mindfulness, deep breathing, and meditation to calm down the sympathetic system (fight or flight) to help us get through the day. But what if we thought of it from a neurological perspective? Possibly many more people would engage in this activity.

Like everything we do, meditation results in neuroplasticity, meaning the more we stimulate a certain pathway, the more efficient it becomes. This includes positive or negative neurological pathways (i.e., playing an instrument or chronic pain). The more we engage in an activity the more conditioned we become, leading to longer lasting effects.

**“Like everything we do, meditation results in neuroplasticity, meaning the more we stimulate a certain pathway, the more efficient it becomes.”**

There have been different studies regarding the mindfulness meditation practice of Buddhist monks. There are even comparisons between meditators and

non-mediators, and thickness in different areas of their brains. Areas like the prefrontal cortex and the anterior cingulate have an increase in thickness responsible for focus, concentration, impulse control, and body awareness, to name a few. Studies found other areas that decrease activities associated with the insula cortex, responsible for pain perception. Other studies have been conducted to understand the effects of brain waves and long-term effects (i.e., [www.pnas.org/doi/10.1073/pnas.0407401101](http://www.pnas.org/doi/10.1073/pnas.0407401101)). Being able to modulate or normalize brain wave activities can result in positive effects with functions such as mood and sleep.


When a person engages in mediation, there is usually the associated deep breathing. But deep breathing is another activity prescribed and taught in many groups. Different types of deep breathing taught include belly breathing, lion breath, equal breathing, and resonant breathing. There are many different styles of breathing techniques but they all impact lung expansion and oxygenation to the brain.

The brain needs 3 things for function: glucose, oxygen, and stimulation. Oxygen supports mitochondrial function, the power plant of the neuron. Through the different breathing exercises, people can increase their oxygen and build plasticity within the lungs. Oxygen can also be anti-inflammatory and heal tissue. Finally, increasing oxygen can positively affect the autonomic nervous system.

**"Many of the studies [on deep breathing and meditation] show positive outcomes, such as increased brain tissue associated with empathy, focus, and memory, while decreasing areas resulting in abnormal pain perception."**

Incorporating the practices of mindful meditation, deep breathing, and other self-reflective calming activities can bring a profound effect to the mind and body. There is more information and more studies being done showing the benefits and the long-term effects. Many of the studies show positive outcomes, such as increased brain tissue associated with empathy, focus, and memory, while decreasing areas resulting in abnormal pain perception.

**"While most will say there is not enough time in the day, that is probably the reason to start. Neuroplasticity is doing something repetitively to a point that it does not take much to activate that system."**

It is not just a metaphysical practice. It truly is something everyone should implement. While most will say there is not enough time in the day, that is probably the reason to start. Neuroplasticity is doing something repetitively to a point that it does not take much to activate that system. It might be difficult at the beginning, and may feel like it needs to be done for hours to see an outcome. Over time it will not take as much work to get the same effects. Improving the brain-body connection, along with increasing oxygen, can net results lasting well into the future. 

Dr. Shane Steadman, DC, DACNB, DCBCN, CNS, is the owner and clinic director of Integrated Brain Centers. To learn more about how they can help with concussions, stroke, and TBIs, please visit [www.integratedbraincenters.com](http://www.integratedbraincenters.com). For a free consultation, please call 303-781-5617.

Available on your favorite streaming platform



**Faces of TBI**  
by Amy Zellmer

A podcast series by survivors for survivors.  
Creating awareness for Traumatic Brain Injury (TBI).

[www.facesoftbi.com](http://www.facesoftbi.com)

Sponsored by: [www.IntegratedBrainCenters.com](http://www.IntegratedBrainCenters.com)



# BREATHING FOR THE BRAIN

BY JONATHAN CHUNG, DC



**W**hen it comes to mindfulness training, there is no shortage of techniques to help reclaim control of a wandering mind. The numerous benefits of mindfulness are well documented in clinical trials across a wide variety of conditions, ranging from anxiety and depression, to autoimmune disease and chronic pain.

Meditation tends to be at the center of most mindfulness strategies. There's been a sharp rise in tools available to help facilitate meditative practice. While most practitioners will emphasize that the benefit of mindfulness comes from clearing the mind, there is reason to believe there's a significant benefit to the breathwork often accompanying meditative practice.

Many meditative practices use cues for a person to focus on their breath as a way to clear their mind of busy or negative thoughts. The breathing pattern is usually quiet,

slow, and intentional, which may create therapeutic effects independent of meditation alone. Your pattern of breath can profoundly impact the autonomic nervous system.

The function of the autonomic nervous system is critical for the health of the body.

## **The autonomic system consists of two branches.**

1. *The sympathetic system which reacts to stress and dictates a fight or flight response.*
2. *The parasympathetic system which calms the body down for resting and digesting.*

Both systems are important for survival and health. But many of us spend far too much time in fight or flight, which comes with detrimental long term health impacts. Prolonged and unchecked fight or flight may play a role in heart disease, stroke, diabetes, and Alzheimer's disease. It's not easy to change our personalities and how we react to stress. But it's important that we keep the stress physiology in check.





Changing your breathing patterns, a simple and free way to reduce stress, takes no additional use of your time. A problem with meditative practice is that it has relatively low compliance. People find it can be difficult to clear their mind, and give up on the practice early. Many people also find it stressful to allocate the time needed for a meditative practice into a busy schedule. When life gets in the way, it's just human nature to abandon routines where an activity is difficult, time consuming, and takes time and repetition to show benefit.

Is it possible to derive some of the benefits of mindfulness-based training without the intentional practice of clearing your mind? This is where breathwork may come into play.

Most of us generally take breathing for granted because it's automatic. We feel the effects of it with a respiratory problem, but we don't think twice about it if we can breathe normally. However, the way we breathe matters a lot.

Many of us breathe in a fast and shallow way, but neurologically this can bias our sympathetic nervous system. When we inhale rapidly, our sympathetic nerves tend to fire more, which keeps our heart rates slightly elevated. Breathing out has the opposite effect. It tends to activate our vagus nerve and slow down our heart rate.

Spending more time breathing out can be a simple way to get more parasympathetic activation from our vagus nerve! It's too simple, but it can be really effective.

### Here's how you can work on this:

1. When reading, watching TV, working on the computer, or getting ready for sleep, start focusing on slowing your breath.
2. Take normal breaths in, but focus on doubling the number of seconds breathing out.

If it takes 2 seconds to breathe in, spend a full 4 seconds breathing out. If it takes 3 seconds to breathe in, spend 6 seconds out.

Try to go as slow as possible. Whenever possible, focus on breathing in and out through the nostrils instead of the mouth. Specific benefits from nasal breathing can enhance this effect compared to mouth breathing.

Initially the breath out will feel strange, but it is normal to be uncomfortable while training yourself to breathe differently.

Within weeks of practice, your natural pattern will change, and this can significantly affect your physiology. Best of all, you can work on this exercise anytime and anywhere without any interference in your normal daily activities. All it takes is a little bit of mindfulness. 🧡

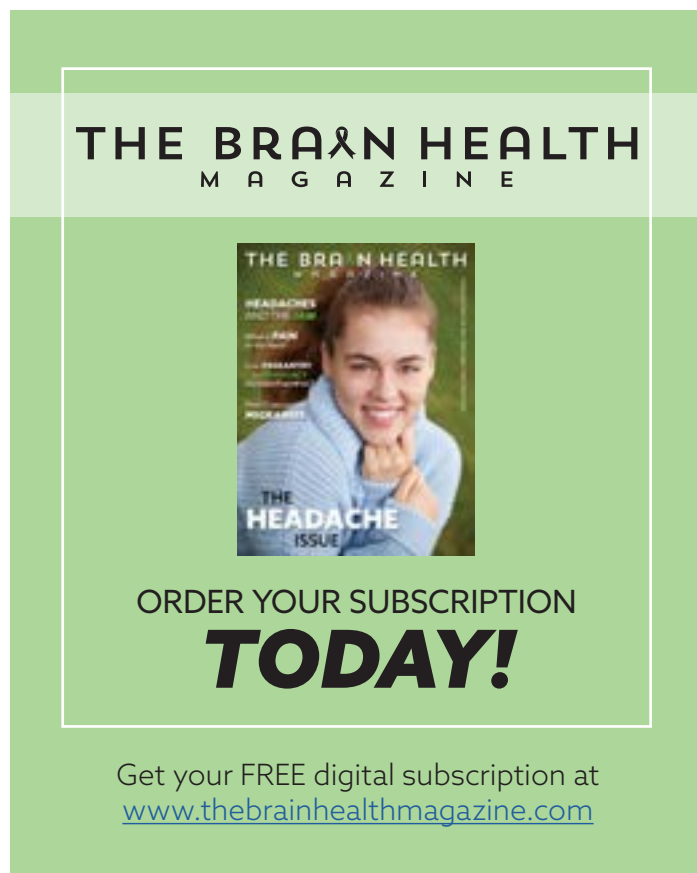
**Jonathan Chung, DC** is the founder and upper cervical chiropractor at Keystone Chiropractic and Neuroplasticity in Wellington, Florida. Learn more about their cervical vestibular rehabilitation program at [www.chiropractickeystone.com](http://www.chiropractickeystone.com)




NUREMBERG, PARIS,  
HELLER & MCCARTHY  
*is pleased to announce it has promoted*  
**JEFFREY M. HELLER**  
*as the firm's newest Partner.*  
*Congratulations!*

**NP**  
NUREMBERG • PARIS  
INJURY LAWYERS

600 Superior Avenue | Suite 1200 | Cleveland, OH 44114



**THE BRAIN HEALTH  
MAGAZINE**



**ORDER YOUR SUBSCRIPTION  
TODAY!**

Get your FREE digital subscription at  
[www.thebrainhealthmagazine.com](http://www.thebrainhealthmagazine.com)

# Thinking Outside the Brain: TRENT McENTIRE'S JOURNEY

BY IAN HEBEISEN



PODCAST HIGHLIGHT

Trent McEntire lived an active childhood, despite experiencing chronic pain and stiffness. Whenever he found a physical task daunting or challenging, McEntire would find ways to accommodate the sport to fit his needs. He played basketball, went cycling, and in time took up dance. “When I got into dance, it felt good in my body because there’s so much mobility work, there’s so much stretching,” said McEntire.

He attended Western Michigan University to study dance. But after one particularly grueling rehearsal, McEntire woke up barely able to walk. “I had so much pain and inflammation from my knees down, that I hobbled to the shower to get water on it to try to mobilize a little bit,” said McEntire. “I thought, ‘this feels bigger than just being a sore athlete in the morning. This might prevent me from being able to pursue my professional career — even finish my degree.’”

McEntire returned home and lamented to his mother, who revealed for the first time in McEntire’s life that he was born with cerebral palsy — a condition where a child is born with a brain injury, affecting development and movement.

“I was 19 when I found out,” said McEntire. “First, I was really mad, because I would have liked to have known. But truly, in hindsight, it was a gift to not know, because I didn’t have a label.”

Working hard on his degree, McEntire managed to become the first in his family to graduate from a four-year college. Part of his studies included movement science, Laban movement analysis, kinesiology, and anatomy. Using his training, McEntire began helping other people recover their mobility.

McEntire began collaborating with Pilates instructors due to their expertise in assessing conditions, and seeing clients based on referrals. “Our clients fall into what I call ‘the movement gap’, where they’re done with the medical system, their PT or OT, but they haven’t quite gotten the quality of life back and they can’t return to activities that they want to do.” The first step, for McEntire, begins by

getting to know the client, taking them out for lunch to learn about their experience, and playing a few games to gauge the client’s conditions.

At first, McEntire applied the methods that previously worked for him. “My clients became guinea pigs,” he said. “Then there started to be published books about the brain and neuroplasticity and sensory training.” Using this new information, McEntire adapted his methods, shifting towards a “whole brain” approach.

**“The whole brain approach looks at three of the body’s main inputs: proprioception, the visual system, and the vestibular system.”**

The whole brain approach looks at three of the body’s main inputs: proprioception, the visual system, and the vestibular system. Proprioception relates to nerve endings, muscles, and joints — tissues we can see, move, and touch within the body. The visual system regulates the stimuli from our eyes, and the vestibular system, located within the inner ear, manages balance. “Those three input systems become a powerful way to make changes and have this whole brain approach,” said McEntire.

Many of the methods involve playing games specifically designed to treat a patient’s ailments. By tricking the brain into having fun with brain exercises, the brain focuses on the exercise with greater ease. “In an environment where clients might be coming in with a very serious condition, and you can help them have fun while they’re recovering, you actually get more momentum,” said McEntire.

“The approach that I’m taking is actually how we’re designed to move, build patterns, make correction, and get improvements,” said McEntire. He now teaches his movement methods to clients and professionals around the world, hoping to help other people reclaim their quality of life. “I think one of the ways to help patients and clients



is educating them. They really appreciate someone who's being an advocate for them, because they don't know what they don't know."

Reflecting on his diagnosis of cerebral palsy, McEntire acknowledges how the condition set him on his current path. "It didn't stop me. It turned into what would become 25 years of helping people recover their own movement abilities and biohacking the brain."

McEntire currently operates out of Michigan. You can visit his website at [fireupyourbrain.com](http://fireupyourbrain.com). To listen to the whole conversation, listen to the Faces of TBI Podcast on Apple Podcasts, or wherever you get your podcasts.

**"[Cerebral palsy] didn't stop me. It turned into what would become 25 years of helping people recover their own movement abilities and biohacking the brain." ⚡**

**Ian Hebeisen** is a writer based in the Twin Cities. Graduating in 2020 with a degree in Literature with a Writing Emphasis, Ian spends his time writing for *The Brain Health Magazine* and JUVEN Press. He also writes comics, zines, short stories, and poetry. He lives with his partner and two cats, and enjoys playing board games and reading.

You can listen to this episode of Faces of TBI on iTunes or wherever you listen to podcasts.



# YOGA

for the  
Mind, Body, & Spirit

BY AMY ZELLMER, EDITOR-IN-CHIEF



**Y**oga is often misunderstood by many, with the thought that you must be flexible and able to contort your body into crazy positions while standing on one toe. This simply couldn't be further from the truth.

Yoga is amazing for the body, spirit, and mind. Similar to meditation, it brings awareness to your breath while your movement coordinates with your breathing. Truly an individual activity, you only do what you're able to do at the pace you're able to do it.

After my accident, I dealt with a lot of physical injuries in addition to my TBI. I knew yoga could help me get my balance and flexibility back, but I just couldn't figure out how to do poses without feeling dizzy or falling over. My yoga instructor helped me figure out how to modify my poses with a chair, so I had something to hold onto for extra reassurance.

ALL poses can be modified. Many can be done from a chair, and some can even be done lying on the floor — or bed!

Within several weeks of doing FIVE simple poses every single day (about 10 minutes per day) I noticed my balance and flexibility slowly but surely coming back.

I do NOT recommend walking into a group yoga class for anyone who sustained a TBI .... unless it is specifically for individuals with disabilities (LoveYourBrain has a great yoga program). There's a really good chance it's going to be too overwhelming for you.

I DO encourage you to find an instructor experienced with accessible yoga and disabilities who can help you create an individualized flow doable from the comfort of your own home. It's not about doing a big pose, it's about getting movement and breath into your body ... even if you practice it seated in a chair.


Yoga has an amazing way of helping calm the central nervous system, therefore helping with anxiety. It is a great way to get some physical movement back into your body, as well as oxygen flowing to the brain.

I know you're probably thinking, "There's no way I can do yoga," but I assure you that you CAN — with the right instructor.

My own experience motivated me to help others experience the power of yoga in their own recovery, whether it's from a TBI or a different injury or illness. Or maybe they are just looking for a way to de-stress their busy lives.

Whatever your reason for coming to yoga, I am passionate about helping you realize your full potential and helping you get better tuned-in to your body. Many will not need modifications, but for those who do, I am confident in my ability to help you get the most out of your yoga session.

I invite you to join me on Patreon for weekly brain-boosting yoga classes, for just \$10 a month: [www.patreon.com/amyzellmer](http://www.patreon.com/amyzellmer).

I keep my classes slow and gentle, and do not include inversions (which can be challenging for anyone with dysautonomia). 

*Amy Zellmer is Editor-in chief of The Brain Health Magazine and MN YOGA + Life Magazine. Amy has a passion to spread the message that yoga is for every BODY, regardless of size or ability, and a mission to raise awareness about the devastating consequences of TBI. She has her 500RYT, and is certified in trauma-informed yoga, LoveYourBrain yoga, and Yoga For All. She is also a Reiki Master. In her free time, Amy enjoys road-tripping across the country visiting National Parks.*



On December 31st, 2009, professional snowboarder Kevin Pearce sustained a life-threatening traumatic brain injury (TBI) before the 2010 Vancouver Winter Olympics. What followed was a remarkable healing journey, captured in *The Crash Reel*, a film by Lucy Walker. This film brought to light the prevalence and complexity of TBIs around the world. In meeting millions of people on the film's global tour, Kevin and his brother Adam began to realize that with each person's unique injury and story, the pathway to healing depended on **community** and **resilience**.

### Why community?

From the immediate aftermath of Kevin's accident, he and his family felt the outpouring of love and support that comes from a community of friends and fans spread across the globe. His community was there at every step of his journey toward healing and through his own transformation.

### Why resilience?

Because TBI can be a lifelong experience for both the person affected and their caregiver(s). Kevin and Adam discovered firsthand how cultivating resilience served as a necessary catalyst to moving forward.

Along the way, Kevin and Adam also discovered that for many people, community and resilience aren't easily accessible. Isolation, lack of purpose, and stigmatization commonly threaten healing after a TBI. Together, with their personal experience of TBI and caregiving for someone with TBI, they wanted to provide the tools and resources they discovered to those who need them: the millions who experience a TBI each year.

### And that's when LoveYourBrain was born.

In 2014, LoveYourBrain began as a question: how can people best be supported to build community and cultivate resilience? Since its inception, LoveYourBrain creates and provides free and accessible programs for people affected by TBI.

LoveYourBrain's programs are intentionally designed around what Kevin discovered in his own healing journey: yoga and mindfulness can be powerful tools for self-empowerment and finding the resilience that exists within us all.

LoveYourBrain developed programs to address and support the "whole person" challenges that arise, not only for those with TBI, but for the caregivers who play an essential role in healing.

LoveYourBrain's programs build communities of support, resources, and compassion all across North America, and — with our new online programs — around the world.

Today, LoveYourBrain is the leading organization providing holistic support to the TBI community around the world through their research-backed Yoga, Retreat, and Mindset Online programs, as well as a library of free, online resources.

That's because LoveYourBrain believes *everyone* in the TBI community deserves to access their resilience, embrace who they are now, and reach their full potential. Learn more about their free programs by visiting [www.loveyourbrain.com](http://www.loveyourbrain.com).

**\$1 from every print subscription will be donated to the LoveYourBrain Foundation. 🧡**





# SETBACKS After Brain Injury

BY AMY ZELLMER, EDITOR-IN-CHIEF

**S**etbacks. They're a fact of life, right? After a brain injury, setbacks can be devastating. They can feel like the end of the world, wrapping you in a feeling of isolation and despair.

Throughout the course of my recovery, it was only natural that I would encounter obstacles. Most of these were small speed bumps, only impacting me mildly for a short time.

However, this past summer I encountered my biggest setback to date, and it derailed me for months.

My brother had been staying with us after his surgery, and I didn't want to wake him by turning on the light as I went down the stairs with my coffee.

## **I made a few critical mistakes that I hope you can learn from:**

1. *I didn't turn on the light*
2. *I didn't use the handrail*
3. *My hands were full*

Yes, I was carrying a full cup of coffee in one hand and my phone in the other as I started my ill-fated journey down the stairs.

As I reached the bottom of the stairs, I thought I was on the floor, but alas, there was still one more step. As I stepped out onto what I thought was the floor, I felt my entire body falling through the air. I immediately knew I was in trouble as my left arm smashed into the corner of the bathroom, and eventually I hit the floor hard with my knee before landing sprawled out on my frontside.

My coffee was strewn over the white carpet and the walls, and my phone had flown into the other room. I lay there for a few minutes, writhing in pain, unsure just how badly I had hurt myself.

I hollered for my brother who somehow had slept through the chaos and he jumped up to help me. I managed to get to my bed and lay down, while my brother grabbed an ice pack for my knee.

I was grateful I hadn't hit my head — though we all know that you don't have to actually hit your head to sustain a concussion. The simple act of your brain bouncing

around inside your skull is all it takes — especially after you've already previously had a significant concussion.

The first few days I could tell I was uncoordinated and my head was fuzzy. As time went on I noticed my aphasia was back and my headaches were out of control again. We had previously gotten my headaches down to one every two or three months, and now they were every other week.

If you've never had a headache, consider yourself super lucky. My headaches come from my neck and can be so painful that all I can do is go to bed — sometimes for days at a time. They interfere with my ability to talk and process information, and often my vision gets impaired as well.

They are completely devastating, as I am not able to function and do simple tasks, let alone work. The fact that they were back again in full force was so discouraging. I didn't want to ever feel this way again, yet here I was.

Memories came flooding back to me ... memories of the way I had been treated by people I thought were friends when I had my original injury. I couldn't bear the thought of going through that emotional roller coaster again.

I began withdrawing, not wanting to commit to social activities for fear of having to cancel at the last minute. I felt alone and incredibly sad — likely an emotional symptom from the concussion, in addition to actually being sad.

I would often have to stay in bed for days, not able to get much-needed work done, or do household tasks and errands. My patience was strained, and I would get frustrated easily. I recognized all these as symptoms of the concussion, having been through this before. But it didn't make it any easier.

**"It's amazing what humans are capable of, and when we join forces we can be unstoppable."**

Fortunately I have tools in my toolbox and know how to use them; however, when you're in the depths of pain, you feel like nothing will ever work and that you'll never feel better again — even though you know that is not the truth.

I have built a strong support system over the last six years since my original injury, yet I didn't have the energy to reach out to them for help. I felt like I would be an

inconvenience or a burden, even though I knew that was just the brain injury talking.

I am a strong, independent woman, yet I felt like I was thrown back into middle-school maturity and thinking. I wasn't processing my reality properly, and it was interfering with my recovery.

- *I was too overwhelmed to do my yoga practice — even though I knew it would help me.*
- *I was too fatigued to go for a walk in nature — even though I knew it would help me.*
- *I was too embarrassed to ask for help — even though I knew it would help me.*
- *I was too anxious to do just about anything, as I didn't want to risk hurting myself yet again.*

These are all very real feelings for someone dealing with a brain injury. They may seem silly, self-sabotaging, or immature to someone who hasn't experienced it, but to those of us going through it, they are very, very real (and frightening).

Even though I knew what I needed to do, and I had the tools, knowledge, and the resources, I was still struggling. To be completely honest, I am still struggling six months later.

When something like this happens, it's jarring to both the body and soul. We have already been through so much and triumphed through it — it's completely discouraging to know that something so minimal (falling down the stairs) can set us back so far.

I know I will get through this. I've made it through worse already. I know I have people who can help me if I allow them. I know I need to give myself grace and allow myself the time needed to heal.

It's amazing what humans are capable of, and when we join forces we can be unstoppable.

I share my recent story in hopes that it can help someone else who's dealing with a setback know they're not alone. I know it can seem like the end of the world, but I assure you it's not. Allow yourself self-care and compassion. Know that I see you, and I understand. 🧡

**Amy Zellmer** is Editor-in chief of The Brain Health Magazine and MN YOGA + Life Magazine. Amy has a passion to spread the message that yoga is for every BODY, regardless of size or ability, and a mission to raise awareness about the devastating consequences of TBI. She has her 500RYT, and is certified in trauma-informed yoga, LoveYourBrain yoga, and Yoga For All. She is also a Reiki Master. In her free time, Amy enjoys road-tripping across the country visiting National Parks.





## LEGAL CORNER

# MINDFULNESS *and* TBI



BY JAMES A. HEUER, PA

In recent studies, mindfulness has been determined to help improve the cognitive state of Traumatic Brain Injury (TBI) patients. It is said that mindfulness assists TBI patients with keeping their focus on the present moment. In short, mindfulness is the state of awareness resulting from consciously paying attention.

Since healing from a traumatic brain injury takes time, the steps along the way can vary from patient to patient. A traumatic brain injury can impact the way one receives messages from the communication of nerve cells in the brain. Using mindfulness as a form of therapy to recover can help in maintaining attention and reacting appropriately to situations and surroundings.


**"A traumatic brain injury can impact the way one receives messages from the communication of nerve cells in the brain."**

When TBI patient recovery makes use of a mindfulness based therapy, it marries together a meditative practice in which cognitive therapy techniques let participants process thoughts and feelings. Meditation, simplified, means to bring mindfulness. This type of program typically spreads out into weekly sessions. A variety of meditative practices include meditations, mindful yoga, and mindful walking.

Within each session comes an emphasis on attitudes of acceptance, patience, and nonjudgmental attention.

Mindfulness is all about being present. Focused breathing is the most common form instructed. Instead of focusing on the event causing the TBI, patients can focus directly on breathing in through their nose and out through their mouth. Focusing along with filling the lungs and lower abdomen reduces stress levels, and the mind and body can connect again without PTSD thoughts that come along with brain trauma.

**"Using mindfulness as a form of therapy to recover can help in maintaining attention and reacting appropriately to situations and surroundings."**

Benefits to participation in these MBCT programs include reduction in medical and psychological symptoms such as anxiety, stress, and isolation, along with improvements in memory, attention, and other cognitive functions. Thus far the primary obstacle has been the difficulty of spreading the practice of meditation due to lack of research, trust, and, unfortunately, lack of interest. Processing the painful experience of an accident and the treatment that follows can sometimes be difficult for a patient. Using mindfulness can improve TBI patients' way of life in the form of self-efficacy and self-regulation. 

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



Are you living with a TBI  
caused by someone else's  
mistake?



**James A. Heuer**  
Attorney

# HF Heuer Fischer, P.A.

CALL NOW! 612-333-3160

The Heuer Fischer  
team of lawyers  
and nurses have  
over 80 years of  
combined  
experience helping  
victims of a TBI.



**Jonathan Fischer**  
Attorney

## OUR OFFICE

Email: [jaheuer@callhlf.com](mailto:jaheuer@callhlf.com) |  
[www.heuerfischer.com](http://www.heuerfischer.com) |  
10 S. 5th Street | Minneapolis,  
MN 55402

Made with PosterMyWall.com

“For many brain injury survivors, mindfulness is an essential practice that helps regulate their mental health, mood changes, and memory.”

# MINDFULNESS

## Proving Powerful for Injured Brains



BY DEBORAH ZELINSKY, O.D.



**F**or many brain injury survivors, mindfulness is an essential practice that helps regulate their mental health, mood changes, and memory.

That comment — from the Headway Company, which works with affordable mental health services — suggests why mindfulness meditation has undergone scientific scrutiny as a technique to bring relief to patients struggling with the physical and psychiatric symptoms of traumatic brain injury. Those symptoms often include cognitive and memory difficulties, headaches, posture and balance abnormalities, lack of focus, depression, anxiety, and even post-traumatic stress disorder (PTSD).

Indeed, scientists reporting in a 2020 issue of *Applied Psychology: Health and Well-Being* say their meta-analysis of 20 previous studies indicates a combination of yoga, meditation, and mindfulness offers “significant improvement of overall symptoms” across all measured outcomes in patients with mild traumatic brain injury. Other investigators, writing in a 2021 edition of *BMC Psychology*, conclude mindfulness “supports the self-management of health after neurological injury/impairment ... [by] encouraging adaptive approach-based coping and acceptance” of one’s health status and impairments. They

refer to mindfulness as a “stress-buffering strategy which can reduce the psychological distress, depression, pain, and worry associated with living with chronic illness.”

**“[S]tudies indicates a combination of yoga, meditation, and mindfulness offers ‘significant improvement of overall symptoms’ across all measured outcomes in patients with mild traumatic brain injury.”**

But what exactly is mindfulness? Nationally noted meditation instructor James Baraz simply calls it a condition of “being aware of what is happening right now without wishing it were different; enjoying the pleasant without holding on when it changes (which it will); [and] being with the unpleasant without fearing it will always be this way (which it won’t).” Some experts refer to it as a method which can promote positive changes in an injured brain. Authors of a report in the *Journal of Neuroscience* reference investigators who consider mindful meditation as



either “focused attention, promoting a sense of detachment from ongoing affective states and enhancing cognitive control” or as a “moment-to-moment non-evaluative awareness of ‘whatever arises.’”

**“[Mindfulness is a] ‘stress-buffering strategy which can reduce the psychological distress, depression, pain, and worry associated with living with chronic illness.’”**

In a blog posted in a 2021 edition of *Psychology Today*, cognitive restructuring specialist Donalee Markus PhD, president of Designs for Strong Minds in Highland Park, Illinois, refers to mindfulness as a “state of being ‘present in the moment’ and controlling the inner dialog that prompts one’s thoughts to wander. We all have that voice in our head [as we move through our day] telling us, ‘You should not have said that. Why didn’t you say it ... ?’ or ‘First, I need to get coffee, then go to the dry cleaners, and maybe after that ... .’ People often subconsciously use these types of metacognitive conversations to criticize themselves, sometimes harshly. At the very least, they use their internal conversation to evaluate behavior and actions.

“Whether we are aware of it or not, we all have a voice or voices inside our head that help monitor behavior and how we interact with the world. Often this is the first thing brain injury patients lose, because it is at such a prominent level of thinking,” Dr. Markus explains in her *Psychology Today* blog. “If any so-called metacognitive dialog remains, most often it is negative — *Why can’t I do this? What’s wrong with me?*”

**“Internal dialogue can take a person ‘out of the moment’ and draw him or her to places, events, and times in the foggy past or into an anxious future that may never happen. Mindfulness returns a patient to the present.”**

For those who suffer head injuries or develop other chronic illnesses, that same “inner voice” torments, adding to patients’ stress and anxiety by asking and re-asking the same questions in their minds: “Will I ever recover from my injuries? Why did it happen? Will I ever be normal again?” Internal dialogue can take a person “out of the moment” and draw him or her to places, events, and times

in the foggy past or into an anxious future that may never happen. Mindfulness returns a patient to the present.

Dr. Markus and Designs for Strong Minds apply mindfulness techniques to enhance a patient’s cognitive ability to think, judge, plan, and organize through use of pictures and puzzles that are “hierarchically organized into specific areas — much like the brain is organized.”

The Mind-Eye Institute uses another form of mindfulness, one modifying a patient’s perception by shifting eye posture and altering sensory integration. Patients with brain injuries or neurological disorders are often unaware of their environment, and unable to maintain attention on a target. These patients often develop compensatory postures and have poor balance. In neurologically compromised patients, these shifts influence the mental map of surroundings. Using individualized optometric interventions to selectively activate the retina (which is an extension of brain tissue), the Mind-Eye Team can modify brain activity.

Both the Mind-Eye Institute and Designs for Strong Minds agree that the “brain is plastic and modifiable at any age and can be rehabilitated after injury or disruption from disease.” Mindfulness is one tool to help accomplish that in positive ways.

**“[M]indfulness meditation can reduce the effects of stress and anxiety by actually reversing the expression of specific genes.”**

Scientists concur. A review published in a 2020 edition of the journal *Consciousness and Cognition* indicates studies of mindfulness and meditation demonstrate “mindfulness induction improves cognitive performance in tasks involving complex higher-order functions.” An earlier study in *Psychiatry Research: Neuroimaging* documents mindfulness meditation as producing “changes in gray matter concentration in brain regions involved in learning and memory processes, emotion regulation, self-referential processing, and perspective taking.”

Authors of research in a 2017 issue of *Frontiers in Immunology* report “pro-inflammatory genes get downregulated” when practicing mindfulness and other mind-body interventions. In effect, they indicate mindfulness meditation can reduce the effects of stress and anxiety by actually reversing the expression of specific genes. Reducing the impact of stress is an important step in

*Continued ...*




... continued from previous page.

recovery from brain injury. Meanwhile, the writers of the *Journal of Neuroscience* report mentioned earlier in this article indicate mindfulness meditation can have “dramatic pain-relieving effects.”

We are all different. Each of us processes our world in unique ways. Designs for Strong Minds and the Mind-Eye Institute referred patients to each other for the past 30 years, depending on whether a patient requires cognitive restructuring, a rebuilding of visual processing skills and perception, or both.

When people visualize, they think about the future. Planning takes people from today — the present — to tomorrow. Mindfulness is rooted in our todays and exemplifies the work of self-empowerment authors Napoleon Hill and David Imonitie who exhorted readers to “conceive it, believe it, and achieve it.” The “brain” glasses

prescribed by the Mind-Eye Institute and the puzzles used by Designs for Strong Minds are highly individualized, based on each patient’s interests and the specific ways each one thinks, plans, learns, and reacts to situations. This kind of individualization helps patients reconnect with their world. 

*Deborah Zelinsky, O.D., is a Chicago optometrist who founded the Mind-Eye Connection, now known as the Mind-Eye Institute. She is a clinician and brain researcher with a mission of building better brains by changing the concept of eye examinations into brain evaluations. For the past three decades, her research has been dedicated to interactions between the eyes and ears, bringing 21st-century research into optometry, thus bridging the gap between neuroscience and eye care.*

# MENTALLY MINDFUL

**“Mindfulness clears the windshield of the mind so that we can see things as they really are.”**

— Travis Eliot

BY AMY ZELLMER, EDITOR-IN-CHIEF

## What is Mindfulness?

A state of nonjudgmental awareness of what’s happening in the present moment, including the awareness of one’s own thoughts, feelings, and senses.

You act mindfully when you listen to a song you love, and notice every tiny detail in the sound. Or maybe you’ve felt anxiety before a big event like a wedding or a job interview, and acknowledged that feeling and chose to simply accept it.

## Components of Mindfulness

### Awareness:

During a state of mindfulness, you will notice your thoughts, feelings, and physical sensations as they happen. The goal isn’t to clear your mind or to stop thinking — it’s

to become aware of your thoughts and feelings rather than getting lost in them.

### Acceptance:

The thoughts, feelings, and sensations you notice should be observed in a nonjudgmental manner. For example: if you notice a feeling of nervousness, simply state to yourself: “I notice that I am feeling nervous.” There’s no need to further judge or change the feeling.

## Benefits of Mindfulness:

- Reduced symptoms of depression and anxiety
- Greater satisfaction within relationships
- Improved memory, focus, and mental processing speed

- *Reduced rumination (repetitively going over a thought or problem)*
- *Improved ability to adapt to stressful situations*
- *Improved ability to manage emotions*

## Mindfulness Practice

Mindfulness is a state of mind, rather than a particular action or exercise. However, without practice, mindfulness is difficult to achieve. These techniques are designed to help you practice.

### Mindfulness Meditation:

Sit in a comfortable place and pay attention to your breathing. Notice the physical sensation of air filling your lungs, and then slowly leaving. When your mind wanders — which it will — simply notice the thoughts and bring your attention back to breathing.

### Mindfulness Walk:

While walking, make a point to practice mindfulness. Start by noticing how your body moves and feels with each step. Then expand your awareness to your surroundings. What do you see? Hear? Smell? Feel? This technique can also be expanded to other daily activities.

## Mindful Emotions

In the moment, distressing emotions may seem impossible to overcome. However, over time these emotions will lessen in intensity and eventually fade away. Use the acronym ACCEPTS for seven techniques for distracting yourself from the distressing emotions until they pass.

- **Activities:** *do an activity requiring thoughts and concentration*
- **Contributing:** *do something that allows you to focus on another person*
- **Comparisons:** *put your situation in perspective by comparing it to something more painful*
- **Emotions:** *do something to create a new emotion that will compete with your distress*
- **Pushing away:** *avoid a painful situation from your mind using techniques such as imagery*
- **Thoughts:** *use a mental strategy or activity to shift your thoughts to something neutral*
- **Sensations:** *find safe physical sensations to distract you from distressing emotions* 🧵



# ART AS A MEANS OF MINDFULNESS



BY IAN HEBEISEN



**M**indfulness comes in many shapes and forms. It doesn't have to be hardcore meditation for a solid hour once a day – that's simply not realistic for everybody. For some people it might be a simple prayer and reflection at the end of the day, for others it might be doodling in an adult coloring book. For my mom, it's both.

Mom always felt a strong connection to her religion. She attends church, sends out prayer requests, and credits her faith in her recovery journey. If she didn't have the support and guidance from some of her pastors and friends, she would not have made it this far.

A few years back, she attended a class at our church on "Praying in Color," a technique developed by Sybil MacBeth. This practice involves coloring, sketching, or painting while praying. When praying in color, the artist focuses primarily on the prayer while letting their hands move freely – no predetermined outcome, no desired goal or ending image. The prayer guides the artwork, often resulting in beautiful, abstract expressionist pieces of art.

Already an incredibly artsy person, Mom adopted the practice and began producing colorful pieces almost daily. At the end of the day, she would sit at her crafting table with her colored pencils, markers, and a plethora of other utensils. She prayed for recovery and clarity, doodling all the while.

Her praying in color became a means of daily reflection. She would meditate on the events of the day – things that went well, particular challenges, her physical pain and muscle spasms – and the art would mirror them. On especially painful days, her art looked murky and black, with lots of intersecting lines and jumbled masses of ink. But on days with notable improvement (finding a new treatment that worked, hearing back from a functional neurologist, etc.), the art featured beautiful colors and crosses.

The more she prayed in color, the more experimental her art became. She branched off into collage, pasting snippets

from articles onto the page and painting around the paper. Mom even began making physical crosses out of materials she gathered on hikes or found while cleaning. Each artwork captured a triumph or struggle, documenting her path to recovery in watercolors and ink.

These crafting sessions accomplished a few things for my mom. First, they served as time to decompress after a day of work and social interactions. Her mind could wander while still working on something creative. Second, they helped Mom get in touch with how she felt, physically and emotionally. She could reflect on the artwork, see what she highlighted, and share it with us when an exciting revelation came through. Third, it gave her something to do. "It gives me purpose when I'm incapable of doing more," said mom. When she's completely exhausted but doesn't want to lie around, it fills her time and makes her feel productive.

Whether she was aware of it or not, Mom became a master of mindfulness, practicing every day. Finding a method of mindfulness that's right for you can greatly improve your mental health and quality of life – it certainly has for my mom.

For caregivers, it's equally as important to practice mindfulness. Take time to reassess how you're feeling to avoid overexertion and burnout. Find time in your day to breathe and check in with yourself. Reflecting on your mental state can let you know if you need to reevaluate boundaries, or if you're ready to take on even more for your loved one. 🧡

**Ian Hebeisen** is a writer based in the Twin Cities. Graduating in 2020 with a degree in Literature with a Writing Emphasis, Ian spends his time writing for *The Brain Health Magazine* and *JUVEN Press*. He also writes comics, zines, short stories, and poetry. He lives with his partner and two cats, and enjoys playing board games and reading.





# YOGA

## Eagle Pose

HEALTHY LIVING

BY AMY ZELLMER, EDITOR-IN-CHIEF

**Y**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, be able to balance, or even be able to stand up. The beauty of yoga is that every pose can be modified to accommodate anyone.

An important aspect of yoga is your breath. Connecting your breath to your body and getting oxygen flowing to your brain makes yoga powerful for recovery. Yoga also quiets the mind and lets anxiety and distracting thoughts drift away.

Eagle pose (Garudasana) helps improve balance and focus, as well as postural and body awareness. It stretches and strengthens your shoulders, upper back, thighs, and core. A grounding pose, eagle helps calm the central nervous system by crossing the midline both on the upper and lower body. It is a great pose to come to when you're feeling stressed or anxious.

**"A grounding pose, eagle helps calm the central nervous system by crossing the midline both on the upper and lower body."**

Traditionally done as a standing pose, eagle pose can easily be modified seated in a chair. While standing, it is a balancing pose, however, your arms are close to your body and your knees are bent, lowering your center of gravity, which makes this a great beginner balance pose.

### Instructions:

1. *Begin by shifting your weight to your left foot. Lift your right foot up off the floor — you may either cross your right thigh over your left thigh, or you can simply place your right foot on the floor to the left of your left foot.*
2. *Bring both arms straight out in front of you. Cross your left arm over the right arm. Draw your forearm together and wrap your right palm across your left, crossing at the wrists.*
3. *Lift the elbows to the height of your shoulders while keeping the shoulder blades back and down, and your spine long with your head rising.*
4. *Hold for 5-10 breaths.*
5. *Repeat on the other side.*

### Modifications:

- *If you have a hard time balancing on one leg, try resting your backside (rear) on the wall.*
- *If your hands can't reach each other, or you struggle crossing your arms, you can simply hold your arms up in front of you with the forearms touching and hands in a fist. Or you can cross your arms in front of you like you're hugging yourself.*
- *If in a chair, simply cross your legs or ankles.*

Join me for monthly yoga classes via zoom for only \$10 a month: [www.patreon.com/amyzellmer](http://www.patreon.com/amyzellmer) 

# CLARITY® Essential Oil



BY AMY ZELLMER, EDITOR-IN-CHIEF

HEALTHY LIVING

**E**ssential oils are a complementary tool to help you achieve a healthy lifestyle. They are easy to use, smell great, and have a variety of uses.

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. They are not regulated by the FDA, so you must look closely at the labels. The labels may say they are 100% therapeutic-grade oils when they are not. If the ingredients list anything other than the plants, 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.

## Clarity®

Clarity essential oil blend combines Basil, Cardamom, Rosemary, Peppermint, Coriander, Geranium, Bergamot, Lemon, Ylang Ylang, Jasmine, Roman Chamomile, and Palmarosa and helps generate a focused environment to clear the mind of unnecessary distractions and encourage concentration.

- **Cardamom:** a refreshing, invigorating aroma
- **Geranium:** an uplifting aroma
- **Peppermint:** Traditionally used to increase mental accuracy


- **Rosemary:** known to amplify mental ability and boost alertness

## Features & Benefits

- Features an herbaceous, soothing aroma
- Invites a sense of clarity and productivity
- Creates an environment of greater focus for spirit and mind

## Suggested Uses

- Apply it to the back of the neck and temples to create an atmosphere conducive to work or study.
- Diffuse or apply it topically with dilution to enhance your yoga and meditation practice and assist in clearing the mind.
- Use Clarity with breathwork and/or exercise to kick-start your day.
- Diffuse or inhale it from the bottle while at work, school, or during study to stay on task and create a focused environment.

\*These statements have not been evaluated by the Food and Drug Administration. Young Living products are not intended to diagnose, treat, cure, or prevent any disease. 

# How to Use TURQUOISE for Mindfulness




BY KRISTEN BROWN  
HEALTHY LIVING



Creating a calm and focused mind can be tricky in today's world, but when you tap into the power of turquoise you can bring back the mindfulness you seek. Whether you use it as a tool during meditation or yoga, wear it as jewelry, or simply keep loose stones around your house or office, turquoise is a useful reminder to get back to the present moment.

**Here are three ways Turquoise can help you be focused and mindful.**

- 1. De-Stress:** *When you get overloaded or burnt out, keep a piece of turquoise in your pocket as a reminder to take deep breaths and calm the mind.*
- 2. Focus:** *When you need to get back to the here-and-now, a turquoise necklace or ring can be a visual and tactile reminder to get back into your body and the moment.*
- 3. Strategic Thinking:** *When it's time to make plans or think about what's next, a turquoise stone next to your computer or in your hand can bring critical strategy energy to the process.*

Turquoise is a powerful stone used since ancient times. Get a few loose stones so you can keep them in multiple places in your home or office. The energy from turquoise will help to focus the body, mind, and spirit. 

**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. Want more info on crystals and energy healing? Connect with Kristen at: [KristenBrownPresents.com](http://KristenBrownPresents.com)

## TUNA SALAD LETTUCE WRAPS

BY AMY ZELLMER, EDITOR-IN-CHIEF




HEALTHY LIVING

Serves: 2    Prep: 10 mins    Cook: 0 mins

### What you need:

- 1 ¼ cup (280g) tuna in olive oil, drained
- 1 tbsp. tomato puree
- 1 small red onion, finely chopped
- ½ Granny Smith apple
- 8 lettuce leaves

### Directions:

- 1.** Put the tuna and half of the oil from the can in a bowl and mix with the tomato puree.
- 2.** Chop the red onion as fine as possible and add to the tuna. Cut the apple in 2 parts and remove the core. Chop the apple into small cubes and add to the tuna. Mix everything.
- 3.** Spread the tuna over the 8 lettuce leaves and serve as wraps. 

|                     |           |             |
|---------------------|-----------|-------------|
| <b>Nutrition</b>    | 286 kcal  | 9g Fats     |
| <b>per serving:</b> | 14g Carbs | 38g Protein |



# BRAIN-BOOSTING YOGA

BY AMY ZELLMER, EDITOR-IN-CHIEF

*Have you heard the saying: “Neurons that fire together, wire together?”*

**O**K, maybe I’m the only neuro geek in the room, but that is exactly what we do in a brain-boosting yoga practice. When neurons wire together, neuroplasticity happens ... which is critical for our brains as we begin to age. Neuroplasticity is our brain’s ability to adapt and create new pathways, especially important for anyone in cognitive decline.

Did you know after the age of approximately 25, our brain begins declining? So when I say “as we begin to age,” I am referring to anyone in their late 20s on up. Everyone needs to be concerned about their brain health, no matter their age, because if your brain isn’t growing, it’s declining.

By forcing the left and right brain hemispheres to work together in brain-boosting yoga, while purposefully confusing the brain and challenging it to learn new information, we keep our brains functioning at their highest level — and neuroplasticity happens.

Yoga, in general, will help you feel more at ease and build endurance. When we focus specifically on brain-boosting yoga, we create changes in our brains, bodies, and lives.

Strategically using contralateral, cross lateral, midline, and gaze stability exercises in conjunction with “resetting” poses (such as gentle forward folds) and breathwork, we give our brains important neurological information.

## Neurological information:

- *Proprioception (where we are in space)*
- *Visual-spatial awareness*
- *Vestibular input*

- *Parasympathetic activation (“rest and digest” mode)*
- *Improved vagal tone*
- *Nervous system resilience*

Every BODY really can do yoga, regardless of size, flexibility, ability, and injury. I use a slow, gentle, and intentional brain-boosting yoga style. If you have balance or mobility issues, you can get the same benefits by doing the practice seated in a chair. The key is consistency ... you can’t just try it once and say whether it worked or not. You need to practice consistently to give your brain a chance to develop neuroplasticity and create lasting changes.

## Benefits of brain-boosting yoga include:

- *Improved flexibility*
- *Increased strength*
- *Better balance*
- *More restful sleep*
- *Improved relationships (think: less conflict because you are less stressed)*
- *Enhanced mobility*
- *Calmer sympathetic nervous system (getting you out of “fight or flight” mode)*
- *Creating neuroplasticity (critical for our brains as we age)*
- *Improved gut function*

**Pictured are a few poses you can try at home:**



**1** Begin in a wide stance with your right foot forward and left foot back. Square your hips to the front foot and place your right hand on your hip. With slow and controlled movements, inhale as you lift your left arm overhead while bending the right knee. As you exhale, straighten the leg and lower the arm. Do 5-7 cycles on the right side, and then turn to the side of your mat with your hands on your hips and do 1-2 slow forward folds. Turn to the left and repeat on the left side.



**2** Begin in mountain pose, and then cross the right leg over the left with the right foot on the floor next to the left foot. Cross your arms across your chest, hugging your shoulders. Breathe here for 1-3 minutes ... you may close your eyes or gently lower your gaze to the floor. Uncross your legs and arms. Shake your body for 1 minute before repeating by crossing the opposite leg and arms.



**3** Begin with your feet slightly wider than hip-width, hands on your hips. As you inhale, raise your right arm overhead and continue into a lateral bend to the left. Exhale as you release your arm back down to the side. Repeat 5-7 times on this side, taking a minute to shake your body before repeating on the other side.



**4** Begin with your feet slightly wider than hip-width. Bring your arms straight out in front of you, grasping your hands with the thumbs pointing up. Focus your gaze on your thumbs as you slowly rotate your body to the right, back to center, and then to the left. Repeat 5-7 times.



**5** Begin in table top pose on all fours. With slow and controlled movements, inhale as you extend your left arm in front and your right leg to the back (you may rest your foot on the floor if you're unable to hold it up without shifting your hips). As you exhale, bring your arm and leg back to neutral. Repeat with the right arm and left leg. Do this 5-7 times with each side. 🧘




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



*"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



# Why is **MINDFULNESS** Important for **Your Workout?**

BY AMY ZELLMER, EDITOR-IN-CHIEF

**A** workout for the sole purpose of physical exercise can only provide limited health benefits. It can help you stay fit to some level and boost your serotonin levels to some points.

But, when you add mindfulness into your workout, it becomes the secret ingredient to overall well-being, including physical and mental health.

Before we move on to the positive effect of mindfulness on your workout, let's explain what a mindful workout is.

## What is a Mindful Workout?

Part of the holistic approach to physical activities, a mindful workout helps you better understand what happens in your body, and utilize the knowledge to improve your physical and mental strength.

A mindful workout, most commonly done in nature, helps you use all senses by leaving your headphones at home. You become aware of every breath and the sensations in your body while doing different movements.

Mindfulness during a workout also includes being present in the moment and aware of your thoughts, potential discomforts, and the sensations in your feet while

they touch the ground. It helps you truly experience every second of your workout and get the most out of it.

**"[W]hen you add mindfulness into your workout, it becomes the secret ingredient to overall well-being, including physical and mental health."**

## How Does Mindfulness Affect Your Workout?

Let's take mindful running, for example, to describe the benefits of mindful workouts.

By concentrating on your mind and body, mindfulness reduces external distractions. Therefore, you relax more, without thinking about your speed, distance, personal records, etc.

By maintaining internal focus, you get ready to overcome your limitations. But, because you are focused on the sensations in your body, the injuries are less likely to happen. You'll notice the signs of discomfort and address your limitations.



## How to Do Mindfulness Exercise?

First, remember to breathe through your nose when practicing mindful workouts. Mouth breathing is part of the stress-induced changes in your breathing, so nose breathing helps you relax and get into the right mood.

Mindfulness is all about the mind-body connection, so try to focus on the inner conversation with your body. Let go of the social expectations and social distractions, timings, tracking devices, points, or anything similar, which can shift your focus from internal feelings to external activities and objects. Don't measure time, but rather think about the technique.

Before you start your workout, prepare for the mindful experience. Do a quick meditation to get out of the state of stress and prepare for the next activity. Five or ten minutes of deep breathing and mindfulness exercises will be enough to get you in the right state of mind for your workout.

**"Let go of the social expectations and social distractions, timings, tracking devices, points, or anything similar, which can shift your focus from internal feelings to external activities and objects."**

## How to Start Mindfulness Exercise?

Once you've done the prep work, engage your focus on your sensations and mind. Start slowly and listen to your body to adjust your pace. Check for the physical sensations as you speed up or slow down.

If your health and breath rate speed up, feel the warming up in your body, the heart beating in your chest. Experience every sensation in your muscles.

Maintain that state of mind and internal focus, but try not to think about the sensations, just feel them.

## What about Your Thoughts?

Once you maintain the awareness of bodily sensations, focus on your mind. Stop replaying situations and scenarios in your head, and use running (or any other workout) as a time to express gratitude for your physical health.

If you feel your thoughts wandering, or moving to less helpful emotions, focus on breathing. It will help you calm down in an instant and gain control over your mindful workout.

Don't think about the end line, feel every step and movement. Slowly, you'll increase your abilities and enjoy your workouts more! 🧘

## DIRECTORY

### CBD PRODUCTS

Entangled Biome  
[www.entangledbiome.com](http://www.entangledbiome.com)

### ESSENTIAL OILS

Young Living Essential Oils  
<http://bit.ly/YLamyz>

### FUNCTIONAL NEUROLOGY

Integrated Brain Centers  
[www.integratedbraincenters.com](http://www.integratedbraincenters.com)

### NEURO TECH

Rezzimax Tuner Pro  
[www.rezzimax.com](http://www.rezzimax.com)

### PERSONAL INJURY ATTORNEYS

Heuer Fischer, P.A.  
[www.heuerfischer.com](http://www.heuerfischer.com)

Nurenberg Paris Injury Lawyers  
[www.nphm.com/about-us/attorneys/jeff-heller/](http://www.nphm.com/about-us/attorneys/jeff-heller/)

### PODCAST

Faces of TBI  
[www.facesoftbi.com/podcast-series](http://www.facesoftbi.com/podcast-series)

### COMMUNITY OUTREACH

Arizona Brain Injury Alliance  
[www.biaaz.org](http://www.biaaz.org)

CTE Hope  
[www.ctehope.com](http://www.ctehope.com)

LoveYourBrain  
[www.loveyourbrain.com](http://www.loveyourbrain.com)

The Brain Injury Association of America  
800-444-6443 [www.biausa.org](http://www.biausa.org)

The Brain Injury Helpline  
800-263-5404 [www.obia.ca](http://www.obia.ca)

The US Brain Injury Alliance  
[www.usbia.org](http://www.usbia.org)



# INTEGRATED BRAIN

---

## centers

## Have You Suffered a Concussion?

**We treat concussion patients from across the country!**

Finding solutions for concussions can be confusing, frustrating and overwhelming. At Integrated Brain Centers we specialize in Functional Medicine and Chiropractic Neurology. We utilize the most cutting edge brain based rehabilitation therapies, which improves the overall health and function of your brain without the use of pharmaceutical drugs or surgery.



*Dr. Shane Steadman*



*Dr. Perry Maynard*

For concussion help contact us at

**303.781.0126**

[www.integratedbraincenters.com](http://www.integratedbraincenters.com)