

FEATURED

## Neuro RehabCare Sending More People Home

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PHOTO BY  
MERRICK MILLER





*Making the invisible visible since 1983*

Dear Readers,

It is with great pleasure that I introduce our latest issue of *The Noggin*, which focuses on “good news” stories from the field of brain health and the Brain Injury Alliance of Arizona.

In a world where the news cycle is often dominated by negative and alarming headlines, it can be easy to lose sight of the positive developments around us. That’s why we’ve dedicated this issue to highlighting some of the most promising and inspiring stories within our community.

You’ll find stories about groundbreaking new insights that are helping us better understand the brain and its functions, as well as innovative ways the people we love are advancing on their road to recovery. These are a testament to the power of perseverance, innovation, and compassion.

As always, our mission at *The Noggin* is to provide our readers with the latest and most accurate information about brain health and wellness. In the following pages, we also hope to inspire and uplift you with stories of determination and progress.

I also urge you to show your continued support with a monthly donation of \$40 in honor of our 40 years of offering free programs and resources. You are the reason we can keep making and spreading good news among survivors, their families, and caregivers.

Thank you and we hope you enjoy reading this special edition of *The Noggin*.



Sincerely,

Carrie Collins | CEO • Brain Injury Alliance of Arizona

**OUR MISSION**—To improve the quality of life for everyone impacted by brain injury by providing advocacy, education, information, support, and resources, while promoting brain injury prevention

**OUR VISION**—A world where all individuals impacted by brain injury thrive in their community



Your generous support is crucial for the Brain Injury Alliance of Arizona to continue providing brain injury survivors, their families, and caregivers with free programs and services. Please scan the QR code and donate today.

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***Did You Know?***

Money can buy happiness – up to about \$75,000. Above that, it has no significant effect on our emotional state.



# Neuro RehabCare Sending More People Home

Neuro RehabCare specializes in providing rehabilitation services to individuals with neurological conditions, such as stroke, traumatic brain injury, spinal cord injury, Parkinson's disease, and multiple sclerosis. Their mission is to provide the highest level of care to help individuals regain function, independence, and quality of life.

These days, what they truly specialize in... is sending people home.

Their highly trained team works closely with each individual and their family to develop a personalized treatment plan that addresses their specific needs and goals.

This interdisciplinary collaboration incorporates physical therapy for mobility, strength, and coordination. It also includes occupational therapy for daily living skills, such as dressing, grooming, and cooking. Speech therapy focuses on improving communication skills, such as speaking, reading, and writing. Neuropsychology deals with cognitive and emotional issues, like memory loss, depression, and anxiety.



Rebekah Holloway Bukowski  
Photo by Merrick Miller

**“Our goal is to get people back into their communities. For each person, it’s a different story. I’m glad to say our success rate increases each year. I’m also happy to see Rebekah get back on that horse, in more ways than one.”**

What's more, they provide education and support to help them manage their condition and transition back to their home environment.

Neuro RehabCare's success can be traced to the supportive and safe environment they have created. The facility is equipped with specialized equipment and technology to help individuals regain function and independence.

Jessica Nathan, Sr. VP of Operations, credits a great deal of their success to her team philosophy. "Our healthcare professionals combine their expertise with each resident's input to help create a treatment plan. This goes a long way toward assisting those in our community-based rehab."

Rebekah Holloway Bukowski was one such resident. She experienced TBI from

being thrown off a horse, then sent to ICU and was given a one-in-three chance of survival. After awakening from a two-week coma, she was transferred to Neuro RehabCare, where her re-entry to her former life, or new version of her former life, began.

She had to relearn how to stand, talk, sit upright, and walk before graduating to essential life skills. Rebekah then learned how to cook and use her mouth as a second hand. Now, after three years of hard work, she has returned to horse riding (with a little help getting on) and taking care of her young son (along with her sister).

"Our goal is to get people back into their communities. For each person, it's a different story. I'm glad to say our success rate increases each year. I'm also happy to see Rebekah get back on that horse, in more ways than one."



Jessica Nathan (left) welcomes back Rebekah (right), who visited Neuro RehabCare to launch her book, *Finding Joy*.



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For more information, visit [Neurorc.com](http://Neurorc.com)  
or call (480) 645-0195.

*After Rebekah's devastating fall, her sister contacted the Brain Injury Alliance Helpline, where Certified Brain Injury Specialists referred her to Neuro RehabCare. Reaching out for community support after medical care can make a world of difference. If you're a provider, we encourage you to apply to be in our database. Contact [info@biaaz.org](mailto:info@biaaz.org) or (888) 500-9165.*

# Good News From Our Clients

As we all know, recovery from brain injury can be a long journey, with lots of ups and downs. It's important to celebrate when we have good news, like these glad tidings from some of our amazing clients.



**Connor LaPlant** is preparing to compete in the 2023 El Tour de Tucson, a 100-mile bike race this November. Recovering from a severe TBI and lupus, he has turned to cycling to keep his mind off the discomfort. He credits his success to following doctor's orders, good nutrition, dedication to fitness, and expressing himself artistically. Ride on, Connor!



**Bob and Shelly** sailed away on a cruise for their 29th wedding anniversary. Shelly is a long-time TBI survivor. Bob recently had neuro issues of his own while surviving a serious bout of COVID. He just published his first book, an inspirational memoir called *Shake Yourself Free*.



**Evan Eschker** received his white coat after finishing school to become a Physician's Assistant. As an undergraduate, he had to leave Wayne State in Detroit due to a brain bleed. This occurred when he was struck by a distracted driver who fled the scene. Evan's brush with brain injury has inspired him to become an empathic medical provider.



Advocating for disabilities in space! **Cazoshay Marie** headed to Frisco, Texas to speak at the National Space Society's International Space Development Conference (ISDC) this summer. Her keynote topic was *Disabled in Space: Accessibility Considerations on Space Settlements*.



# We're So Proud of You, Arizona!

Thanks to your efforts, over 250,000 unused prescription and OTC medications have safely and permanently been disposed of – for good!

You're looking out for your loved ones who experience opioid abuse more than ever. We know this is true, because since January 2020, the Brain Injury Alliance State Opioid Response team has handed out over 3,500 free doses of Narcan in the community.

This means you're becoming more aware of the symptoms of overdose like clammy skin, lips that turn purple, and drastically reduced breathing or heartbeat. By having Narcan available for yourself and your loved ones, you are saving lives.

We also give a special shoutout to Mercy Care and AHCCCS for supporting our work to get Narcan out to the disability community. This serves to educate and empower those with brain injury, as well as those who could acquire a non-traumatic brain injury due to a restricted flow of oxygen.

If you have recently overdosed and are returning to work, we urge you to contact us at (888) 500-9165 or [info@biaaz.org](mailto:info@biaaz.org).

We're also amazed by how you've taken to our statewide delivery of the free Deterra Drug Deactivation & Disposal System. Because of your depth of caring, over 250,000 pills have been taken off the street.

When you dump prescription drugs around your home into these water-filled packets, then into the garbage, you're keeping pills out of the wrong hands. And by not flushing them, your meds stay out of the water supply.



For your free harm-reduction items, like Deterra and Narcan, stop by the Brain Injury Alliance during office hours or contact us at (888) 500-9165 or [info@biaaz.org](mailto:info@biaaz.org).



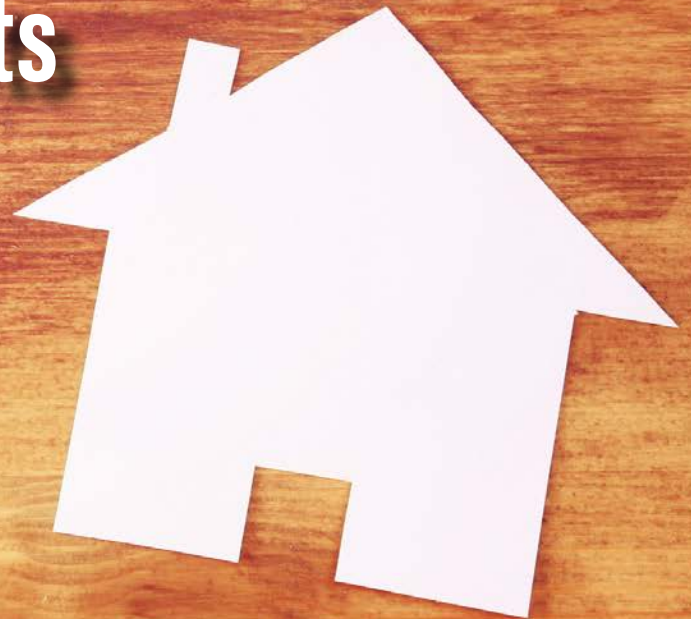
## Did You Know?

People who are happy tend to get sick less often.

# New Program Targets Homelessness

From coast to coast, the issue of homelessness continues to dominate headlines due to its devastating consequences. Futures are uncertain. Goals postponed. Families affected. Personal health deteriorates. What's more, it has come to light that there is an undeniable connection between housing challenges and brain injury.

The good news is we're getting to the core of the issue to help reduce the number of people in pain.



One decade ago, the 2013 Annual Homeless Assessment Report to Congress found that more than 610,000 Americans were homeless at a single point in time (65 percent in emergency shelters or transitional housing, 35 percent in unsheltered locations). An estimated 110,000 identified as chronically homeless.

In 2022, the latter figure has skyrocketed to almost 130,000.

Half of the homeless population has sustained a traumatic brain injury. Of the homeless individuals with TBI, 70 percent experienced their first brain injury before they became homeless. Translation: Consequences of their brain injury likely led to loss of housing.

Finally, some much-needed relief.

For the first time ever, a new project between the Brain Injury Alliance of Arizona and the Human Services Campus (HSC) will be ground zero for supporting those experiencing homelessness who have sustained a head injury.

Through an innovative screening process directly at HSC, we will be able to identify one's history of brain injury so relevant actions can be taken to address the unique cognitive challenges that exacerbate their plight.

As they move from homeless to housed, we will help coordinate services to meet their legal, medical, and other needs.



With one-on-one support, we strive to help them reach home, personal, and vocational goals. And because we will present with them during their time at HSC, we won't interfere with their other responsibilities.



Led by Shawna Fellenz, Program Operations Director, Brain Injury Alliance, we will then help individuals navigate the often-confusing landscape of transitioning from homeless to housed.

We will also connect them with the appropriate services while coordinating their legal, medical, and other needs. Special thanks to

HSC CEO Amy Schwabenlender as well as project advisors, Dr. Ian Crain and Marysue Garganta.

By highlighting the connection between homelessness and brain injury, we seek to offer hope for those determined to overcome their challenges. At the same time, the success of this innovative program should serve as a model to other cities across the country. To enhance our study, we encourage medical advisors in the community to support this important work.

Also, if you or a loved one has experienced homelessness, we want to talk to you. Please contact us at (888) 500-9165 or [info@biaaz.org](mailto:info@biaaz.org).



★ ★ ★ ★ ★

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**VETERAN & MILITARY**


**FAMILY**

**OFFICE HOURS**

**10AM-3PM TUESDAYS**

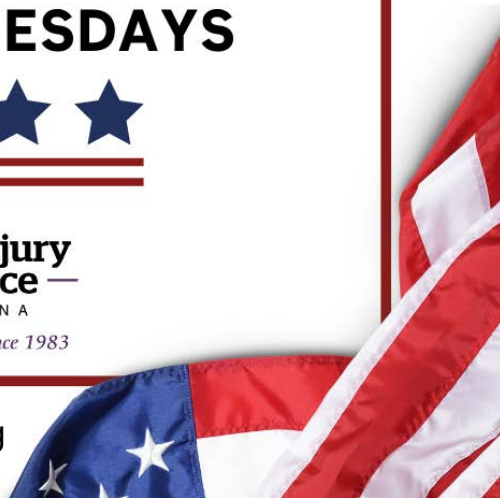
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**Brain Injury Alliance**  
ARIZONA  
*Making the invisible visible since 1983*

Drop in or reach out at [veterans@biaaz.org](mailto:veterans@biaaz.org) or 888-500-9165 for an appointment.



# Celebrities Erasing Brain Health Stigma

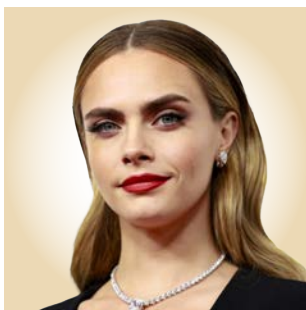
This has been a good year for celebrities erasing the stigma of seeking help to improve their brain health. Here are four whose openness is making a difference.



## U.S. SENATOR JOHN FETTERMAN SEEKS TREATMENT FOR DEPRESSION

In February, Sen. John Fetterman (D- PA), took a leave of absence from the U.S. Senate to be treated for depression. His open acknowledgement of struggles with mental health empowered others to tend to their own mental health needs. Although he wasn't the first national politician to admit to this battle, he needed to prove he could handle the intense pressure of the position.

His use of closed captioning during a debate and while in the Senate provided a teaching moment for others about commonly used auditory processing and speech aids. This has helped reduce the stigma associated with physical disabilities, especially brain injury.



## ACTRESS CARA DELEVINGNE COMES CLEAN ABOUT HER DRINKING

Model/actress Cara Delevingne brought attention to her alcohol abuse by admitting to checking into rehab. Cara went public after paparazzi pix were published, forcing her to take a hard look at herself. She admitted she felt overwhelming shame and that these images acted as a wake-up call to get help. "You know, sometimes you need a reality check, so in a way those pictures were something to be grateful for."

Cara helped reduce the stigma of asking for help by telling fans about her enrollment in a 12-step program. Since then, she has continued to find support and therapy to deal with her depression, the loss of her grandmother, and her lifelong battle with addiction.

Now her mission is to help others. "Every single story is important and this is mine. To anyone out there still struggling, don't give up, you are not alone."



## **SINGER ED SHEERAN OPENS UP ABOUT HIS SEVERE DEPRESSION**

Pop star Ed Sheeran opened up about experiencing depression and hopelessness. The unexpected death of his best friend and a tumor that affected his then-pregnant wife sent Sheeran reeling. He said he didn't want to live anymore and had the feeling of being under the waves, drowning with no escape.

He also addressed his shame as a father living with depression, but described how his wife urged him to seek help. His openness has been widely hailed as an inspiration for other young men to seek therapy for their mental health struggles.



## **SNL'S PETE DAVIDSON REVEALS SUBSTANCE ABUSE AND BORDERLINE PERSONALITY ISSUES**

Pete Davidson discussed how his borderline personality disorder (BPD) affected his life with mood and behavior instability. Doctors originally diagnosed him with bipolar disorder, which led to a reliance on various drugs. Until he was properly diagnosed, he said he had been "confused all the time, and just thought something was wrong, and didn't know how to deal with it."

With the correct diagnosis, Pete became a visible proponent for therapy. After quitting social media, he encouraged all those who struggle to seek help, emphasizing the need to stop stigmatizing people as crazy. "It's not their fault, and it's the wrong way for people to look at things."



### ***Did You Know?***

Happiness is contagious; hanging around happy people makes us happy.

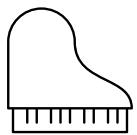




## TAKING CARE OF YOUR TEETH MAY BE GOOD FOR YOUR BRAIN

Your dental health may be linked to better brain health, according to a study published in *Neurology*. The research found that gum disease and tooth loss were linked to brain shrinkage in the hippocampus, which plays a role in memory and Alzheimer's disease. The study does not prove that gum disease or tooth loss causes the disease; it only shows an association.

"Tooth loss and gum disease, which is inflammation of the tissue around the teeth that can cause shrinkage of the gums and loosening of the teeth, are very common, so evaluating a potential link with dementia is incredibly important," said researcher Satoshi Yamaguchi, PhD, DDS, of Tohoku University in Sendai, Japan. "Our study found that these conditions may play a role in the health of the brain area that controls thinking and memory, giving people another reason to take better care of their teeth."



## ROBOTIC GLOVE CAN HELP THOSE WITH STROKE RELEARN THE PIANO

A first-of-its-kind robotic glove is lending a "hand" and providing hope to piano players who have experienced a disabling stroke. Developed by researchers from Florida Atlantic University's College of Engineering and Computer Science, the soft robotic

hand exoskeleton improves hand dexterity.

Combining flexible tactile sensors, soft actuators and AI, this robotic glove is the first to "feel" the difference between correct and incorrect versions of the same song and to combine these features into a single device.

"Playing the piano requires complex and highly skilled movements, and relearning tasks involves the restoration and retraining of specific movements or skills," said Erik Engeberg, Ph.D., senior author. "Our robotic glove is composed of materials that provide gentle support and assistance to individuals to relearn and regain their motor abilities."



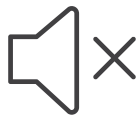
## EARLY READING FOR PLEASURE LEADS TO BETTER MENTAL HEALTH

Children who begin reading for pleasure early in life tend to perform better at cognitive tests and have better mental health when they enter their teenage years.

In a study of more than 10,000 adolescents published in *Psychological Medicine*, researchers in the UK and China found that 12 hours a week was the optimal amount of reading, and was linked to improved brain structure.

Reading for pleasure can be an important and enjoyable childhood activity. Unlike listening and spoken language, which develop rapidly and easily in young children,

reading is an acquired skill and developed through explicit learning over time.



## THE SOUND OF SILENCE: PEOPLE ACTUALLY HEAR IT

Simon and Garfunkel were right, after all. Silence might not be deafening but it's something that literally can be heard, concludes a team of philosophers and psychologists whose research is set to be published in *Proceedings of the National Academy of Sciences*.

"We typically think of our sense of hearing as being concerned with sounds. But silence, whatever it is, is not a sound -- it's the absence of sound," said lead author Rui Zhe Goh, a Johns Hopkins University graduate student in philosophy and psychology. "Surprisingly, what our work suggests is that nothing is also something you can hear."

The team adapted well-known auditory illusions to create versions in which the sounds of the original illusions were replaced by moments of silence. In the team's new silence-based illusion, an equivalent moment of silence also seemed longer than it really was.

The fact that both illusions produced the same results as their sound-based counterparts suggests that people hear silence just like they hear sounds.



## COFFEE'S BOOST GOES BEYOND CAFFEINE

That oomph you get from a cup of coffee can't be duplicated with caffeine alone, reveals a new study from the University of Minho in Portugal.

Plain caffeine only partially reproduced the effects of drinking the hot beverage, according to the study, published in the journal *Frontiers in Behavioral Neuroscience*. Coffee brought additional effects on brain areas that affect working memory and goal-directed behavior.

Scientists found that consuming both coffee and caffeine led to decreased nerve connectivity in the brain's default mode network, which is involved in introspection and self-reflection processes.

"Acute coffee consumption decreased the functional connectivity between brain regions of the default mode network, a network that is associated with self-referential processes when participants are at rest," co-author Maria Picó-Pérez said. "The subjects were more ready for action and alert to external stimuli after having coffee."



### Did You Know?

Relationships are more likely than money to produce a happy life.



# BRAIN HEALTH Leadership Breakfast

2023 EVENT CO-CHAIRS

Dr. Edward James  
Dr. Tamara Valovich McLeod

## BACK to BUSINESS

Friday, October 20, 2023  
8:00–9:00am



Business is booming, but how do you accommodate employees with brain injury, including stroke, car accidents, or overdose?

Don't worry, this panel of experts is here to guide your C-suite with what you need to know.

The goal of this one-hour virtual breakfast is to increase awareness and advocacy for this important work throughout the state. Please join us!



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A QUALIFIED CHARITABLE TAX ORGANIZATION!**

# Your brain wants you to read this!



Your brain knows a great deal when it sees one, especially one that helps brains everywhere.

When you contribute up to \$842 to the Brain Injury Alliance of Arizona, the state of Arizona will thank you with up to \$842 on your 2023 taxes.

## What's the catch?

No catch, just a win/win: We're a Qualifying Charitable Organization (QCO) and you're a wonderful, thoughtful, caring person who wants to help survivors of brain injury, their families, and caregivers. We also provide free programs and resources promoting brain health for everyone.

## Here's how it works —

	INDIVIDUAL	JOINT
AZ STATE TAXES OWED	\$421	\$841
YOUR GIFT TO BIAAZ	\$421	\$841
<b>TOTAL DUE TO AZ</b>	<b>\$0</b>	<b>\$0</b>

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## Can any Arizona taxpayer do this?

Yes, and it comes right off the top of your Arizona state taxes, with no itemization required. See how this works? **You take care of your brain; your brain takes care of you.**



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**TODAY!**





**Brain Injury  
Alliance**  
ARIZONA

PRESENTS

With more than 600,000 veterans in Arizona, there is a growing need to help those in various stages of recovery from brain injury, PTSD, trauma, or suicidal ideation. Founded in Tucson in 1983, the Brain Injury Alliance of Arizona (BIAAZ) has successfully answered the call to action.

Today, BIAAZ serves 9,000+ veterans and military families annually across Arizona, helping them to adapt, recover, and connect to their peers and community for an improved quality of life.

We invite you to join the **2023 Salute Our Vets 10K/5K/1-Mile Fun Run**. Proceeds from this event will support **Brain Injury Alliance of Arizona's Veteran & Military Emergency Relief Fund** — *so no veteran walks alone in their time of need.*

**Saturday, October 14, 2023 7:00–9:30 am**

BRANDI FENTON  
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