



TBI News & Views

A publication of the Northern New Jersey Traumatic Brain Injury System

PERSONAL PERSPECTIVE

The Storm

By Grace Wells, Research Coordinator, Center for Neuropsychology and Neuroscience Research, Kessler Foundation

We often think of fate as predetermined destiny or an event occurring outside of our control. In the fall of 2012, when Superstorm Sandy battered New Jersey, fate took hold of the lives of Porfirio (Porfi) Garcia and Lee Kimble. Porfi, who was living alone on the coast, felt it was safer to travel to Manhattan to stay with his partner Lee. That was when Porfi had a stroke – and Lee immediately rushed him to St. Luke’s Roosevelt Hospital for treatment. Had he not decided to join Lee in the city, Porfi would have been stranded in the midst of a devastating hurricane, his outcome uncertain.

Upon discharge from the hospital, Porfi was transferred to Kessler Institute for Rehabilitation in West Orange, NJ, for acute rehabilitation.



He was grateful for the care and encouragement of his team of nurses, therapists, and other stroke rehabilitation specialists, led by physiatrist Mylan Lam, M.D. Although he was occasionally frustrated having to relearn daily tasks, Porfi remained positive and was buoyed by the support of friends and family.

Porfi continued his recovery through outpatient therapy at Kessler Institute and still schedules regular check-ups with Yekyung Kong, M.D.

Immediately following Porfi’s “brain attack,” Lee began researching how best to care for his partner. He also gained great insight and strategies from the rehabilitation team and came to understand how crucial it is to work toward restoring pathways in the brain as soon as possible. Lee and Porfi also participated in Kessler Institute’s support group, where they learned about a program called Opportunity Project.

Located in Millburn, NJ, Opportunity Project helps brain injury survivors explore their strengths and abilities and transition to life ahead with as much independence as possible. The program runs a wide range of individual and group activities throughout the



Porfi Garcia

day, such as work assistance, music, cooking, and general therapy to build physical, cognitive, and social skills. Porfi benefitted greatly from working with the program’s trained personnel and interacting with his peers, noting a marked improvement in function.

Today, Porfi’s daily motivation is to live life to the fullest. He relies on the practices he has learned over the years to be as independent, confident, and comfortable as possible. Both he and Lee praise New Jersey’s vast resources and accessible venues. Much like the storm that changed their lives forever, Porfi continues to be a force of nature, giving every day his best. ■

RESOURCE REFRESH

Therapy Corner: Food for Thought—Enhancing Neuroplasticity and Neurorecovery through Nutrition

By Arielle Resnick, PT, DPT, Advanced Clinical Specialist, Inpatient Brain Injury Unit, Kessler Institute for Rehabilitation

The trillions of bacteria that make up the “gut microbiome” do a lot more than help our bodies digest food. These bacteria promote healing, produce vitamins, and fight inflammation. There is growing interest in how the gut microbiome can be influenced by dietary choices.

Reducing inflammation in the body is especially important after a brain injury. Fruits like pineapple, strawberries, blueberries, oranges, and cherries as well as leafy greens like spinach, kale, and collards all help fight inflammation. Foods high in omega-3 fatty acids have been shown to improve cognition, increase neuroplasticity, and decrease risk of depression. Fatty fishes, flax seeds, walnuts, avocado, and chia seeds are all recommended sources.



Often discussed is the concept of brain foods, superfoods, and foods that promote brain health. The Mediterranean diet is a great example of a diet that is rich in antioxidants and healthy fats. This diet recommends consuming cold-pressed olive oil, vegetables (especially leafy greens), fruits, and whole grains during every meal. It also helps reduce free radicals, which can build up in cells and cause damage to other molecules, such as DNA, lipids, and protein; and enhances cognition and *neurogenesis*, the growth and development of nervous tissue.

Assisting Patients with Choices

Meanwhile, because traumatic brain injury (TBI) can trigger significant metabolic shifts, individuals with moderate-to-severe TBI may experience difficulty swallowing, a condition called dysphagia, and a subsequent inability to consume adequate nutrition by mouth.

To increase awareness of nutritional options and assist patients starting their journey back to health, the Food for Thought Initiative was born at Kessler Institute for Rehabilitation. It combines one-on-one education from a registered dietitian with the ability to order two different options of brain-healthy smoothies each day. The Green Goodness Smoothie, made with anti-inflammatory pineapple, hydrating cucumber, spinach, turmeric, and lemon juice, is available daily at lunchtime. The Berry Blast Smoothie is available daily for an afternoon snack made with Greek yogurt, antioxidant packed frozen berries, and flaxseed oil. As an additional option for patients unable to eat by mouth, a tube-feeding formula is available. It is plant-based, gluten-free, kosher, vegan, organic and non-GMO.



The final—and most exciting—component of this initiative involves participation in an occupational therapy and dietary co-led group. This group empowers patients to make their own brain-healthy smoothies while learning how each ingredient contributes to their well-being. Smoothies are an excellent choice, as the consistency can be easily modified for patients with dysphagia who require varying thicknesses. They can also be created and consumed within a 45-minute group session. These sessions are currently up and running at the Kessler Institute’s Chester campus and are coming soon to the Saddle Brook and West Orange, N.J. campuses.

Stay tuned for future offerings from this important initiative! ■

EXPERT OUTLOOK

Reclaiming Self After Brain Injury—Have a Say in Who You Become

By Tara Buggie



Tara Buggie

The mystery of “self” has historically confounded science. As recently as 2021, the understanding of self has been called a major weakness in cognitive science. As a result, the loss of self that can occur after brain injury is not well understood. Having lived my own loss of self after a severe traumatic brain injury in 1997, I have dedicated decades to the study of the topic. I am thrilled that today’s golden age of neuroscience now recognizes that people living with brain injury play a key role in helping solve the mystery.

There are two very distinct yet interrelated types of loss after brain injury. The loss of sense of self typically follows mild brain injury. It can leave individuals aware of an emotionally distressing difference between their pre- and post-injury selves. This can be so catastrophic that they fall into a cycle of denial.

The second type of loss is impaired self-awareness, also known as anosognosia. This loss usually follows severe brain injury and leaves individuals unaware of the deficits that the injury has resulted in. Both types of loss can limit the benefit of rehabilitation to individuals with brain injury. They may not even recognize their need for rehabilitation and have difficulties setting appropriate goals. Both types

of loss can lead to depression, poorer outcomes, and a lower quality of life.

To lessen the effects of either type of loss, neuroscience now recognizes the importance of understanding the individual experience of self after brain injury—renowned neurologist Oliver Sacks called “almost unimaginably remote” from anything the most sensitive observer has ever known.

Since 1998, storytelling has been used to understand the experience of living with brain injury and help rebuild identity in those without memory or with language difficulties. Author and academic Jason Tougaw wrote about “experiencing the brain” in his 2018 award-winning book, *The Elusive Brain: Literary Experiments in the Age of Neuroscience*. He noted that brain memoirs are a way to bridge the gap between the patient and doctor or scientist and that they “may have a thing or two to teach neuroscientists about the self and uncertainty.”

Individuals with brain injury are now seen as viable forces who have a say in who they become. Please join me in sharing your brain injury experience and understanding of self after brain injury with others to help more survivors move toward what I call, “new, new selves after brain injury.” Together we can play an essential role in moving science toward mastering this final frontier. ■

“I am thrilled that today’s golden age of neuroscience now recognizes that people living with brain injury play a key role in helping solve the mystery.”

– Tara Buggie

NNJTBIS

NORTHERN NEW JERSEY
TRAUMATIC BRAIN INJURY SYSTEM

Kessler Foundation
120 Eagle Rock Avenue
East Hanover, NJ 07936-3147

Non-Profit Org.
U.S. Postage
PAID
Gettysburg, PA
Permit No.28

TBI News & Views is published tri-annually by the Northern New Jersey Traumatic Brain Injury Model System (NNJTBIS) for people with traumatic brain injuries (TBI) and their families. The NNJTBIS is funded by the National Institute on Disability, Independent Living and Rehabilitation Research (grant #90DPTB0003) and is a collaborative effort of Kessler Foundation, Kessler Institute for Rehabilitation, University Hospital, Hackensack University Medical Center, St. Joseph's Regional Medical Center, Morristown Medical Center, and Jersey City Medical Center.

NNJTBIS Staff

Nancy Chiaravalloti, PhD	Anthony Lequerica, PhD
John DeLuca, PhD	Serena Payton
Andrea Trotta Gagliano, MS, CRC, LAC	Paige Rusnock
Neil Jasey, MD	Angela Smith, MA
John O'Neill, PhD	Irene Ward, PT, DPT
Bruce M. Gans, MD	Belinda Washington
Jean Lengenfelder, PhD	Erica Weber, PhD

Editorial

Carolann Murphy Gail Solomon

TRAUMATIC BRAIN INJURY FACT SHEETS

The Model Systems Knowledge Translation Center created a new fact sheet that suggests strategies caregivers can use to manage stress. This can be found by scanning the QR code on the right.



IN THIS ISSUE:

- 01** Personal Perspective: The Storm
- 02** Resource Refresh: Therapy Corner: Food for Thought—Enhancing Neuroplasticity and Neurorecovery through Nutrition
- 03** Expert Outlook: Reclaiming Self After Brain Injury—Have a Say in Who You Become

Volunteers are the heart of research.

Kessler Foundation research helps people with disabilities live better lives.

Join our research studies at [KesslerFoundation.org/join](https://www.KesslerFoundation.org/join)

