



MORE THAN 42 MILLION Americans live with headache or migraine, which means that even if you aren't personally affected, chances are you know someone who is. Many types of headache disorders, particularly migraine, come with chronic, debilitating pain that impacts nearly every facet of an individual's life: family, career, school, hobbies, travel, and time with friends.

Led by Kerry Knievel, DO, the Lewis Headache Center at Barrow Neurological Institute aims to be a global leader in headache care, offering individualized, multifaceted treatment that focuses on each patient's overall health and well-being. This includes cutting-edge medications and therapies, innovative research, and a comprehensive wellness program.



outpatient
visits



new
patients



physical therapy
patient visits

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



CLINICAL IMPACT

117,700+

total number of
patient visits

5,800+

brain and spine surgeries

14

Centers of Excellence



GLOBAL IMPACT

59

research fellows and visiting
scholars: Argentina, Austria,
Brazil, Chile, China, Colombia,
Czech Republic, Denmark,
Finland, Germany, India, Italy,
Jordan, Mexico, Pakistan,
Peru, Portugal, South Korea,
Spain, Taiwan, Turkey,
United Kingdom

A HOLISTIC TREATMENT APPROACH

The Lewis Headache Center takes a holistic approach to headache treatment. Patients benefit greatly from its comprehensive wellness program, which includes yoga, physical therapy, mindfulness, psychology, dietary consultations, and social work.

Juliana Kroese and Mindy Holleran, both of whom are licensed physical therapists and certified yoga therapists, lead weekly yoga classes that patients can attend either in person or via Zoom.

As a headache physical therapist, Kroese also provides skilled treatment to remedy functional deficits, aiming to not only reduce patients' headache pain, but also improve their quality of life. Physical therapy is one of the Center's most sought-after services, with 1,380 patient visits last year. Due to the high volume of patients, the headache team recently welcomed a second physical therapist, Meryl Cripe.

In April 2023, the headache team welcomed clinical psychologist Jennifer Gray, PhD, to lead the psychological component of the wellness program. Dr. Gray takes a collaborative approach to treatment, incorporating strategies such as cognitive behavioral therapy (CBT), mindfulness interventions, and dialectical behavioral therapy (DBT).

The Center also held a four-week mindfulness course for headache patients. The sessions focused on meditation and awareness development, both of which can be powerful tools for headache patients.

INNOVATIVE HEADACHE RESEARCH

In addition to providing world-class patient care, Barrow headache specialists conduct novel research aimed at finding better ways to diagnose, treat, and prevent headache disorders.

Investigator-initiated studies: Headache neurologist Jennifer Robblee, MD, is leading two investigator-initiated studies, both of which were awarded funding through Barrow Neurological Foundation's competitive grant process. The first looks at headache patients' response to the Relivion external nerve stimulator, a multichannel electronic headband that targets the trigeminal and occipital nerves. The second utilizes magnetic resonance imaging (MRI) to analyze changes in the brain during status migrainosus, a relentless headache lasting more than 72 hours that does not respond to medication.

Industry-sponsored studies: The Center currently has three studies that are open and enrolling patients:

- A study testing standard-of-care occipital nerve block injections versus a placebo for the preventive treatment of migraine.
- A Phase 3 study of Botox for the prevention of migraine in patients with episodic migraine.
- A Phase 3, multicenter study evaluating the safety, tolerability, and efficacy of Qulipta (atogepant) when added to Botox for the preventive treatment of chronic migraine.

EDUCATION AND OUTREACH

In March 2023, Barrow headache specialists and supporters participated in the seventh annual Miles for Migraine Run/Walk/Relax event. Barrow Neurological Foundation also received a grant from Miles for Migraine in support of headache fellowship training at the Lewis Headache Center. The one-year Barrow Headache Fellowship Program provides physicians with an opportunity to work with patients in clinics, as well as contribute to ongoing research studies and clinical trials. In July 2023, the headache team welcomed its newest fellow, Olivia Kingsford, DO.

In April 2023, the Lewis Headache Center hosted its second annual Barrow Headache Education Symposium for patients. Topics covered included headache diagnosis and classification, the latest treatments and therapies, wellness strategies, and more. Patients also had the opportunity to participate in a mindful movement and meditation class. Concurrently, the team held a Provider Headache Education Symposium to educate physicians about headache treatment in the primary care and general neurology settings.

ON THE HORIZON

The Lewis Headache Center plans to recruit a translational research scientist, who will help design and execute headache-specific clinical trials, allowing it to deliver more treatments to more patients more quickly. The Center will also welcome headache neurologist Lindsay Frereichs, MD, from Washington University in February 2024. For the outreach and education component of its program, the Center plans to hold the Patient and Provider Headache Education Symposiums in February 2024. Due to the success of the spring symposiums, they will once again run simultaneously.

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



RESEARCH

327

active research studies

200+

peer-reviewed
journal publications

\$12 MILLION

in new federal research
grant support



DONOR IMPACT

3,898

total donors

\$44 MILLION

distributed to Barrow Neurological
Institute, including:

\$25.4 MILLION

designated to the
Ivy Brain Tumor Center

\$5.3 MILLION

designated to specific
centers/programs

\$11.9 MILLION

for basic, clinical, and
translational research

\$1 MILLION

in endowments



Lewis Headache Center team (left to right): Nicholaus Scarfo, Dr. Courtney Schusse, Dr. Glynnis Ziemann, Karissa Secora, Dr. Kerry Kniewel, Lauren Harvey, Dr. Jennifer Robblee, and Dr. Shane Root.

THANK YOU FOR YOUR SUPPORT

Thank you for your support of the Lewis Headache Center. Your generosity allows us to continue expanding our multidisciplinary care model, so more headache patients can receive comprehensive, individualized treatment. In particular, our wellness program has experienced significant growth. Not only did we welcome clinical psychologist Dr. Jennifer Gray, but we also held a four-week mindfulness course, launched a wellness program newsletter, and treated 144 new wellness program patients.

In addition, we have continued to grow our research program, with two new investigator-initiated studies receiving philanthropic support from Barrow Neurological Foundation. These accomplishments would not be possible without your support and dedication.

Kerry Kniewel, DO
Director, Lewis Headache Center
Barrow Neurological Institute

The mission of Barrow Neurological Foundation is simple: to be the catalyst of our donors' passion for transformation by providing the resources for Barrow Neurological Institute to achieve its mission of saving human lives through innovative treatment, groundbreaking research, and educating the next generation of the world's leading neuroclinicians.

Barrow
Neurological Foundation

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