



HEADACHE PAIN CAN lead a person to become fully incapacitated. Imagine a headache attack so debilitating that you are sensitive to light and sound and have blurred vision, slurred speech, nausea, and fatigue. This can severely impact your quality of life and make it difficult to hold a job, be present for family activities, and maintain connections with friends.

The Lewis Headache Center at Barrow Neurological Institute, led by Kerry Knievel, DO, aims to be the premier global destination for comprehensive headache patient care. This includes providing cutting-edge medications and therapies, in addition to a multidisciplinary wellness program with physical therapy, yoga, dietary consultations, and social work. While providing care to patients, Barrow headache specialists are also conducting innovative research to find better ways to diagnose, prevent, and treat headache disorders.



6,817

overall clinic
visits in 2022



679

new patients
in 2022



677

headache physical
therapy visits in 2022

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



CLINICAL IMPACT

91,800+

total number of
patient visits

20,900+

telemedicine visits

5,500+

brain and spine surgeries



GLOBAL IMPACT

78

international
research fellows and
visiting scholars

RESEARCH ADVANCEMENTS

The Lewis Headache Center has continued to expand its research program with four active clinical trials:

- A year-long extension study that evaluates the long-term safety and tolerability of an oral drug for the prevention of migraine in patients with chronic or episodic migraine.
- A study that tracks the standard of care for migraine patients and compares treatment responses from specific patient subpopulations.
- An interventional study that evaluates the efficacy and safety of the drug Vyepti in patients with episodic cluster headache.
- An observational study of headache patients' three-month response to external combined occipital and trigeminal nerve stimulation.

Headache neurologist Shane Root, MD, is also developing a study to examine the efficacy and tolerability of nerve block injections for the acute treatment of migraine, as well as their preventive effect over an extended period of time. This pilot study has never been tested before in migraine and has the potential to significantly improve insurance coverage for nerve block injections.

PROGRAM ACCOMPLISHMENTS

Last year, Jan and Tom Lewis committed an additional \$3 million in support of headache care at Barrow. In honor of their generosity, the Institute and Foundation renamed the Jan and Tom Lewis Migraine Treatment Program as the Lewis Headache Center to reflect a broadening of patient care and research for headache conditions.

The Lewis Headache Center welcomed several new team members last year. In August 2021, licensed physical therapist and certified yoga therapist Juliana Kroese joined the headache team. Since her arrival, more patients have been utilizing headache-specific physical therapy services, and the Center has enlisted Barrow outpatient rehabilitation physical therapists Mindy Holleran and Kitty Minor to see the overflow of patients. The team also welcomed a new physician assistant, Nicholaus Scarfo, MPAS, PA-C, and a new headache fellow, Mustafa Yehya, MD.

The Center has seen an increase in headache patients utilizing social work services. Social worker Sadie Kleiman provides headache patients with important resources and information, including how to navigate benefits and FMLA at work, medication costs, and issues with transportation to appointments. The Center also launched a quarterly newsletter, which

covers topics such as lifestyle changes to better manage headache pain, tips to reduce stress, yoga updates, clinical trial updates, headache resources, and more.

EDUCATION AND OUTREACH



The Lewis Headache Center is dedicated to raising awareness and elevating the topic of migraine in the community. In March 2022, Barrow headache specialists, team members, and supporters gathered at Kiwanis Park in Tempe, Arizona,

to participate in the sixth annual Miles for Migraine 5K run, walk, or relax event. Funds raised through this event went toward migraine research at the Lewis Headache Center and other local medical centers.

In October 2022, the Center held its first Headache Education Symposium for Patients. The daylong, in-person event covered topics such as approaches to migraine and headache treatment, physical therapy and wellness, headache and nutrition, and pain psychology, followed by a yoga class and meditation. Those in attendance appreciated the diversity of speakers, learning about new medications and therapies, and connecting with other headache patients.



“With having several professional perspectives presented, I felt that Barrow had a holistic approach to finding all aspects of migraine that can help each one of us individually.”

Symposium attendee

ON THE HORIZON

The Lewis Headache Center plans to continue expanding patient care and research by recruiting for the following positions:

- A translational research scientist, who will design and execute headache-specific trials, allowing the Center to grow its clinical trial portfolio.
- A headache psychologist, who will play a critical role in the wellness program, as anxiety and depression commonly occur with migraine and can hinder patients in managing their headache.
- A second headache physical therapist, who will see the additional overflow of patients.

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



RESEARCH

397

active research studies

791

patients enrolled in clinical trials

\$14 MILLION

in federal research grant support



DONOR IMPACT

\$20 MILLION

total distributed to Barrow Neurological Institute, including:

\$3.5 MILLION

designated to specific centers/programs

\$15.4 MILLION

for basic, clinical, and translational research

\$1.5 MILLION

in endowments



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

THANK YOU FOR YOUR SUPPORT

Thank you for your support of the Lewis Headache Center and our world-class team of headache specialists. We aim to make the Center a premier destination for comprehensive patient care by offering individualized, multifaceted treatment that includes not only traditional therapies and medications, but also a wellness program that addresses comorbidities that can worsen or hinder the management of headache pain. We will also continue accelerating research to develop new modalities for treating headache disorders while training the next generation of leading headache specialists.

Your support will have a profound impact on millions of headache sufferers across the country. On behalf of the entire headache team, thank you for your generosity and dedication.

With gratitude,

Kerry Knievel, 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 by educating the next generation of the world's leading neuroclinicians.

Barrow
Neurological Foundation

Barrow Neurological Foundation
2910 N. Third Ave., Ste. 450, Phoenix, AZ 85013
www.SupportBarrow.org