



THE NEURO-REHABILITATION CENTER at Barrow Neurological Institute provides a complete spectrum of care, including acute and inpatient services, outpatient rehabilitation, and school and work re-entry programs. Barrow is ranked as one of the nation's Best Hospitals for Rehabilitation by *U.S. News & World Report*.

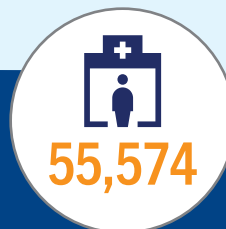
Barrow launched the Department of Physical Medicine and Neuro-Rehabilitation as part of the Neuro-Rehabilitation Center in 2023. Along with the department's opening, brain injury specialist Christina Kwasnica, MD, and spine rehabilitation specialist Matthias Linke, DO, joined Barrow as full-time faculty. The Center also recruited two additional rehabilitation specialists, Tenee Lopez, MD, and Madeline Dicks, DO.



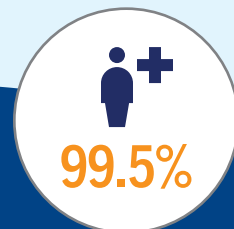
acute physical therapy patients



acute occupational & speech therapy patients



outpatient rehabilitation sessions



patient satisfaction for outpatient services

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

WORLD-CLASS PATIENT CARE

When Arturo Monroy was involved in a horrific rollover car accident, he sustained massive brain trauma and a broken neck, leaving him unable to move all four limbs. As a Deaf man, Arturo uses sign language to communicate with others. The thought of never being able to connect with his family again devastated the devoted father of nine and grandfather of 21. But Arturo's team at the Barrow Neuro-Rehabilitation Center assured him that they would fight as hard as they could to help him recover.

Every day, Arturo worked hard with his Barrow therapists on various exercises to regain strength and movement in his hands. A little over a month later, he was finally able to sign again. Arturo's therapists didn't stop there; they continued working with him until he could walk again. Today, Arturo can communicate with his children, play with his grandchildren, and do the activities he loves again. He credits all of that to the exceptional care provided by the Barrow neuro-rehabilitation team.

TECHNOLOGY AND INNOVATION

The Barrow Neuro-Rehabilitation Center is one of the only rehabilitation facilities to utilize state-of-the-art robotics across the complete continuum of care. Funded by philanthropy, these technologies allow Barrow therapists to tailor exercises to accommodate each patient's needs, helping them achieve a higher level of functioning and independence. For example, Arturo's therapists utilized technologies such as the Bioness Hand Rehabilitation System to help re-educate his muscles and improve his fine motor skills so he could sign again. They also utilized the robotic exoskeleton to help him practice the correct step patterns and weight shifts needed for walking independently.

Last year, the Center for Transitional Neuro-Rehabilitation (CTN) acquired seven new technologies to aid with a variety of patient needs, from processing speed and hand-eye coordination to upper-limb mobility. The Barrow Neuro-Rehabilitation continuum also became the first facility to clinically implement the Harmony SHR upper-body robotic exoskeleton for use with patients.

RESEARCH AND EDUCATION

Philanthropy also supports vital research and education to help rehabilitation therapists maximize patients' recovery. Barrow therapists



are working on several studies utilizing data from neuro-robotics. One such study involves analyzing data collected from the Fourier ArmMotus M2, which helps retrain the upper body, to identify trends that deliver the best results based on each patient's specific type of injury.

CTN program director Pamela Klonoff, PhD, participated in a study that evaluated the long-term outcomes of pediatric versus adult-onset acquired brain injuries. Results from the study, which was published in *Frontiers in Neurology*, indicated that there is no time nor age limit to patients benefiting from holistic rehabilitation interventions. As a whole, the CTN program generated seven research publications last year.

ON THE HORIZON

The Barrow Neuro-Rehabilitation Center plans to advance the patient experience by integrating technology into inpatient rooms. This includes using specific technology to enhance safety and communication while providing patients with a greater sense of independence. One example would be using Barrow-issued iPads for patients to access educational information and exercises assigned by their therapists, as well as to control the lights, temperature, and television in their rooms.

The Center also plans to increase its research efforts by recruiting dedicated research specialists. The CTN plans to expand its research program by recruiting a neuroscientist and plans to strengthen its psychology program for patients and families by recruiting additional rehabilitation psychologists.

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



Specialists in the Rob and Melani Walton Outpatient Neuro-Rehabilitation Gym assist a patient with strength exercises.

THANK YOU FOR YOUR SUPPORT

We are incredibly grateful for your support of the Barrow Neuro-Rehabilitation Center and its multidisciplinary team of specialists. Your generosity allows us to continue enhancing our clinical effectiveness by acquiring cutting-edge rehabilitation technologies and conducting studies to determine how to maximize their effectiveness for each patient. For example, Arturo Monroy went from thinking he would be permanently paralyzed from the neck down to regaining complete movement in all four limbs with help from our dedicated team.

His recovery highlights perfectly how world-class care combined with cutting-edge technology can allow patients to go back to living fulfilling lives after a brain or spinal cord injury. Your support helps make recovery stories like Arturo's possible.

On behalf of the entire Barrow neuro-rehabilitation team, thank you for your support and dedication to improving the lives of our patients.

With gratitude,

Luann Williams
Director, Rehabilitation Services
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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