Barrow Neurological Institute at Dignity Health St. Joseph’s Hospital and Medical Center in Phoenix, Arizona is an international leader in the treatment, research, and education of brain and spinal diseases, conditions, and injuries. Led by Barrow President and CEO Michael T. Lawton, MD, one of the world’s top neurosurgeons, the Institute performs more neurosurgical procedures annually than any other facility in the United States.

Accreditations & Recognitions

Newsweek lists Barrow as one of the best specialty hospitals in the world for neurosurgery and US News & World Report ranks Barrow as a top destination for neuro-rehabilitation in the country. Additionally, Barrow has met the rigorous standards for Comprehensive Stroke Certification by The Joint Commission. This certification is given in partnership with the American Heart Association/American Stroke Association, which has separately awarded Barrow the Get With The Guidelines® Stroke Gold Plus Achievement Award with Target: Stroke Honor Roll and Target: Type 2 Diabetes Honor Roll. The Institute also boasts a Level 1 trauma center, CARF-accredited neuro-rehabilitation programs, and more certified neuroscience registered nurses (CNRN) than any other hospital in the world. Highly regarded for neuroscience education for decades, Barrow is ranked by Doximity as second in the nation for its neurosurgery residency program and 45th for neurology.

Barrow has contributed to many breakthroughs in neuroscience and neurosurgery, including refining the cardiac standstill procedure, isolating the gene for the inherited form of cerebral cavernous malformations, and pioneering thoracoscopic spinal surgery. The Institute is a leader in harnessing innovative technologies and procedures, such as minimally invasive spine surgery, microscopic techniques, and robotic spine surgery.

Designated Centers of Excellence

- ALS – ALS Association Certified Treatment Center of Excellence
- Alzheimer’s Disease & Cognitive Disorders – Lewy Body Dementia Association Center of Excellence
- Brain and Spinal Cord Injury – The Joint Commission Disease-Specific Care Certification for Traumatic Brain Injury and Spinal Cord Injury
- Cavernous Malformation – Angioma Alliance Center of Excellence
- Epilepsy – National Association of Epilepsy Centers – Level 4 Comprehensive Epilepsy Center
- Hereditary Hemorrhagic Telangiectasia – Cure HHT Center of Excellence
- Hereditary Neuropathy – Hereditary Neuropathy Foundation CMT Center of Excellence
- Huntington’s Disease – Huntington’s Disease Society of America Center of Excellence
- Multiple Sclerosis – National Multiple Sclerosis Society Center for Comprehensive Care
- Muscular Dystrophy – Muscular Dystrophy Association Care Center
- Neuro-Rehabilitation – Ekso Bionics Center of Excellence
- Parkinson’s Disease – Parkinson Foundation Center of Excellence
- Skull Base Surgery – North American Skull Base Society Multidisciplinary Team of Distinction
- Stroke – Joint Commission and American Heart Association/American Stroke Association Certified Comprehensive Stroke Center; American Heart Association/American Stroke Association 2023 Get With The Guidelines Stroke Gold Plus Quality Achievement Award; Target: Stroke Honor Roll Elite; and Target: Type 2 Diabetes Honor Roll
Barrow Neurological Institute is located on the Dignity Health St. Joseph’s Hospital and Medical Center campus in the heart of Phoenix, Arizona. It’s approximately seven miles from the Phoenix Sky Harbor Airport, in a “top metropolitan market.”

The Institute’s 430,300-square-foot, 176-bed Robert F. Spetzler Neuroscience Tower is the largest neuroscience center in the nation. It features 11 of the most advanced dedicated neurosurgical operating rooms in the world, a 64-bed designated Neuro-Intensive Care Unit, and a 32-bed state-of-the art neuro-telemetry unit. All rooms in the neuroscience tower are private and spacious with ample room for an adult guest to stay overnight with the patient.

Additionally, Barrow is home to 46 Inpatient Neuro-Rehabilitation beds.

Departments
Each department at Barrow emphasizes clinical care, research, and education.

- Clinical Neuropsychology
- ENT and Skull Base Surgery
- Neurology
- Neuropathology
- Neuro-Rehabilitation
- Neuroradiology
- Neuroscience Nursing
- Neurosurgery
- Radiation Oncology
- Translational Neuroscience

Centers and Programs
Barrow is committed to clinical excellence, outreach, and support for patients and families affected by neurological conditions and diseases. It is home to the following:

- Acoustic Neuroma Program
- Alzheimer’s and Memory Disorders Program
- Aneurysms and Cerebrovascular Program
- Auditory Brainstem Implant Program
- Brain Injury & Sports Neurology Center
  - Domestic Violence Brain Injury Program
- Brain Tumor Program
  - Ivy Brain Tumor Center
- Center for Transitional Neuro-Rehabilitation (CTN)
- Cochlear Implant Program
- Deep Brain Stimulation (DBS) Program
- Epilepsy Program
  - Magnetoencephalography (MEG)
  - Visual Monitoring Unit
  - Electroencephalography (EEG)
- Facial Reanimation Program
- Gamma Knife & Radiosurgery Center
- Gregory W. Fulton ALS and Neuromuscular Disease Center
- Hereditary Hemorrhagic Telangiectasia Program
- Hypothalamic Hamartoma Program
- Lateral Skull Base Program
- Lewis Headache Center
- Muhammad Ali Parkinson Center
  - Lonnie and Muhammad Ali Legacy Care Program
- Multiple Sclerosis Program
- Neuro-Ophthalmology Program
- Neuro-Otology and Balance Disorders Program
- Neurosurgery Program
- Neuro-Rehabilitation Center
  - Inpatient Neuro-Rehabilitation Unit
  - Outpatient Neuro-Rehabilitation Center
- Neuro-Epidemiology and Data Science
- Neuroinflammation and Immunity
- Neuro-Oncology
  - Head and Neck Cancer
  - Medical Oncology
  - Neuro-Oncology
  - Radiation Oncology
- Neurotrauma Program
- Petznick Stroke Center
  - Barrow Emergency Stroke Treatment Unit
- Pituitary Center
  - Neuroendocrinology Clinic
- Sinus Program
- Spine Program
  - Sonntag Spine Center

Research
Barrow is home to the Ivy Brain Tumor Center, the largest Phase 0 clinical trials program in the world.

The Institute conducts basic, translational, and clinical neuroscience research in the following areas:

- Brain Tumors
- Cerebrovascular and Stroke
- Molecular and Cellular Neuroscience
- Neurodegeneration
- Neuroimaging
- Neuro-Epidemiology and Data Science