Department of Neurosurgery





Patient Referrals

Neurosurgery (602) 406-3181

Transfer a Patient 1-844-BNI-XFER (844-264-9337)

More InformationBarrowNeuro.org

#MindingWhatMattersMost



Barrow Second Opinion

Barrow Neurological Institute offers neurosurgical second opinions.

For more information visit

BarrowNeuro.org/ SecondOpinion



2023
Newsweek







The Department of Neurosurgery at Barrow Neurological Institute epitomizes its creed of accepting challenges, rejecting norms, and pushing boundaries. With Michael T. Lawton, MD, at the helm, Barrow focuses on providing every patient with the most advanced neurosurgical care. Our highly skilled and experienced neurosurgeons represent all subspecialties within the field of neurosurgery and perform more brain surgeries than any other hospital in the United States.

Barrow neurosurgery patients have access to invaluable research and hundreds of clinical trials—enabling better treatment options, sooner. Our surgeons have pioneered neurosurgical procedures and techniques in vascular (cardiac standstill, AVM grading, and complex bypass surgery), spine (fusion and instrumentation techniques, thoracoscopic spine surgery, and robotics), and tumor (Phase 0 clinical trials, transfacial and skull base resection techniques). They've made game-changing discoveries in neuroscience, including isolating the gene that causes the inherited form of cerebral cavernous malformations.

Barrow neurosurgeons are committed to sharing the knowledge they've built over the years through a steadfast pursuit of academic excellence and resident education.

What We Treat:

- Acoustic Neuroma
- Aneurysms
- Arteriovenous Malformations
- Brachial Plexus Injuries
- Brain Tumors
- Carotid Artery Disease
- Cavernous Malformations
- Degenerative Spine Disease
- Epilepsy
- Facial Palsy
- Hydrocephalus
- Intracranial Stenosis and Moyamoya Disease

- Macro and Microvascular Decompression
- Meningioma
- Parkinson's Disease and Movement Disorders
- Peripheral Nerve Disorders
- Pituitary Tumors and Disorders
- Scoliosis and Spinal Deformities
- Spine Disorders
- Spinal Trauma
- Spinal Tumors
- Stroke
- Trigeminal Neuralgia

Brain and Cerebrovascular Procedures:

- Aneurysm Clipping
- Aneurysm Embolization
- Asleep Deep Brain Stimulation (DBS)
- AVM Resection
- Bypass Surgery
- Carotid Angioplasty and Stenting
- Carotid Endarterectomy
- Craniocervical Junction Surgery
- CyberKnife Radiosurgery

- Embolization of AVM and AV Fistula
- Endoscopic Cranial Surgery
- Endoscopic Transsphenoidal Pituitary Surgery
- Endovascular Neurosurgery
- Epilepsy Surgery
- Gamma Knife Radiosurgery
- Skull Base Surgery
- Stereotactic Laser Ablation

Spine Procedures:

- Adult and Pediatric Scoliosis Surgery
- Minimally Invasive and Hybrid Scoliosis Correction
- Custom 3-D Printed Implants for Fusion Surgery
- Less-Invasive Spine Tumor Surgery
- Mini-Open Thoracic Herniated Disc Surgery
- Minimally Invasive Lateral Surgery
- Minimally Invasive Spine Surgery
- Navigation-Guided Spinal Procedures
- Robotic-Assisted Spine Surgery

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Department of Neurosurgery



Michael T. Lawton, MD
Aneurysms and Blood
Vessel Disorders
Arteriovenous Malformation
Cavernous Malformation
Acoustic Neuroma
Skull Base Surgery



Felipe Albuquerque, MD
Aneurysms and Blood
Vessel Disorders
Endovascular Neurosurgery
Hereditary Hemorrhagic
Telangiectasia
Meningioma
Stroke / Transient Ischemic
Attacks



Kaith Almefty, MD Meningioma Acoustic Neuroma Skull Base Surgery Schwannoma Spine Surgery



F. David Barranco, MD Brain Tumors Cervical Spine Surgery Lumbar Spine Surgery Pituitary Tumors and Disorders Radiosurgery



Steve Chang, MD Brain Tumors Cervical Spine Surgery Minimally Invasive Spine Surgery Robotic Spine Surgery Spine Tumors



Tsinsue Chen, MD
Deep Brain Stimulation
Trigeminal Neuralgia
Hemifacial Spasm
Brain Tumors
Spine Tumors



Andrew Ducruet, MD
Endovascular Neurosurgery
Aneurysms and Blood
Vessel Disorders
Arteriovenous Malformation
Dural Arteriovenous Fistula
Stroke / Transient Ischemic
Attacks



Brian Fitzpatrick, MD
Brain Tumors
Hydrocephalus
Lumbar Spine Surgery
Minimally Invasive Spine
Surgery
Normal Pressure
Hydrocephalus



David Fusco, MD
Brain Tumors
Cervical Spine Surgery
Cyberknife
Lumbar Spine Surgery
Minimally Invasive Spine
Surgery



Mark Garrett, MD Brain Tumors Spine Tumors Complex Cervical and Lumbar Spine Cranial/Spinal Trauma Artificial Disc Surgery



Ashutosh Jadhav, MD Aneurysms and Blood Vessel Disorders Arteriovenous Malformation Carotid Stenosis Intracranial Stenosis Stroke



Taro Kaibara, MD
Brain Tumors
Minimally Invasive
Spine Surgery
Cervical Spine Fusion
Lumbar Spine Fusion
Spinal Navigation and
Robotics



U. Kumar Kakarla, MD Scolisois: Pediatric and Adult Cervical Spine surgery Thoracic Spine surgery Lumbar Spine surgery Disc Herniation



Bryan Lee, MD
Minimally Invasive Spine
Surgery
Complex Spinal Deformity
Correction
Cranial and Spinal Trauma
Brain and Spinal Tumors



Andrew Little, MD
Pituitary Tumors and
Disorders
Brain Tumors
Meningioma
Arnold Chiari Malformation
Radiosurgery



Frederick Marciano, MD, PhD
Brain Tumors
Cervical Spine Surgery
Lumbar Spine Surgery
Minimally Invasive Spine
Surgery
Spinal Cord Tumors



Zaman Mirzadeh, MD, PhD
Trigeminal Neuralgia
Cancer Pain
Neuropathies
Spinal Cord Stimulator
Intrathecal Baclofen/Pain
Pump



Rory Murphy, MD
Cervical Myelopathy
Cervical Spine Surgery
Brain Tumors
Spinal Cord Tumors
Spinal Cord Injury/Peripheral
Nerve Surgery



Mark E. Oppenlander, MD
Cervical Spine Surgery
Craniocervical Junction
Surgery
Herniated Thoracic Disc
Lumbar Spine Surgery
Robotic Spine Surgery
Scoliosis and Spinal Deformities
Spinal Trauma/Spine Tumors



Francisco Ponce, MD
Deep Brain Stimulation
Parkinson's Disease and
Movement Disorders
Spinal Cord Disorders
Spinal Cord Tumors
Spine Tumors



Randall Porter, MD Acoustic Neuroma Minimally Invasive Spine Surgery Robotic Spine Surgery Brain Tumors Radiosurgery



Nader Sanai, MD Brain Tumors Radiosurgery Glioblastoma Meningioma Skull Base Surgery



Kris Smith, MD Brain Tumors Cyberknife Gamma Knife Glioblastoma Multiforme Meningioma



Laura Snyder, MD Minimally Invasive Spine Surgery Spinal Stenosis Spine Tumors Artificial Disc Surgery Robotic Spine Surgery



Luis Tumialan, MD
Minimally Invasive Lumbar
and Cervical Surgeries
Artificial Disc: Lumbar and
Cervical
Robotic-Assisted Spinal Surg.
Anterior Cervical Fusions
Minimally Invasive Management of Spinal Cord Tumors



Jay Turner, MD, PhD
Scoliosis and Spinal
Deformities
Spine Tumors
Minimally Invasive Spine
Surgery
Robotic Spine Surgery
Craniocervical Junction Surgery



Juan Uribe, MD
Cervical Spine Surgery
Minimally Invasive Spine
Surgery
Robotic Spine Surgery
Scoliosis and Spinal
Deformities
Thoracic Spine Surgery



John Wanebo, MD Aneurysms and Blood Vessel Disorders Brain Tumors Cervical Spine Surgery Glioblastoma Multiforme Moyamoya Disease



David Wilson, MD
Brain Tumors
Spine Tumors
Minimally Invasive Cranial
Techniques
Degenerative Spinal Disorders