Minimally Invasive Brain Surgery

Program Overview & Treatment Options

FloridaHospitalNeuro.com

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Welcome

On behalf of our entire care team, I would like to welcome you to Florida Hospital. Officially formed in 1998, the Florida Hospital Neuroscience Institute is a recognized leader in neurological and neurosurgical care and treatment in Florida. Our multidisciplinary team of experts ensures excellence in treatment, research, and care. Florida Hospital's mission — to extend the healing ministry of Christ — has inspired us to build a unique health network dedicated to providing comfort, healing and the discovery of new treatments and cures.

We're honored that you have entrusted us with your health. We look forward to caring for you.

Sincerely,

Wendy Elliott
Assistant Vice President
Florida Hospital Neuroscience Institute

Program Overview

The Minimally Invasive Brain Surgery program (MIBS) at the Florida Hospital Neuroscience Institute features a multidisciplinary team of physicians — along with clinicians and support staff — who work together to achieve excellent patient care and outcomes. Our nationally renowned neurosurgeons are committed to exceeding clinical and quality measures, maximizing the use of research and improving the patient experience to achieve the best possible outcome for our patients.

We understand that patients suffering from brain disease and injury are faced with many options regarding treatment. That's why our team creates an individualized plan of care for every patient that provides maximum benefit through the utilization of the most technologically advanced facilities and equipment .

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Conditions Treated

- Acoustic neuromas
- Aneurysms
- Arachnoid cysts
- Arteriovenous fistula
- Arteriovenous malformations (AVMs)
- Astrocytomas
- Carotid dissection
- Carotid stenosis
- Cavernous malformations
- Cerebellopontine angle tumors
- Chordomas
- Choroid plexus tumors
- Colloid cysts
- Craniopharyngiomas
- Epidermoid tumors
- Hemifacial spasm
- Intracranial dissection
- Intracranial stenosis
- Intraparenchymal masses
- Intraventricular meningiomas
- Intraventricular tumors
- Malignant gliomas
- Meningiomas
- Metastatic brain tumors
- Obstructive hydrocephalus
- Paragangliomas
- Pineal region tumors
- Pituitary tumors
- Skull base tumors
- Teratomas
- Trigeminal neuralgia
- Vertebral stenosis
- Vestibular schwannomas

Advanced Technology

In our innovative state-of-the-art operating suites, we can perform 3-Tesla magnetic resonance imaging (MRI) scans before, after and during the procedure. This allows us to confirm the success of a brain surgery before the patient ever leaves the room. Combined with other advanced technologies, these operating suites provide our nationally recognized neurosurgeons the best tools in the country to perform surgery with the highest levels of precision.

We also utilize the InnovatOR Suite — enabling surgeons from all specialties to team up with industry leaders to develop the future of patient care and medicine. This is where new surgical techniques, products, equipment and efficiencies will be discovered.

Treatment Options

The Florida Hospital Neuroscience Institute's MIBS program provides the most advanced minimally invasive options available to achieve the best possible outcomes.

Gamma Knife Radiosurgery

Radiosurgery is a non-invasive procedure that utilizes powerful doses of radiation to treat diseased brain tissue while leaving surrounding tissue unharmed — accurate to within one millimeter of the targeted area. The Leksell Gamma Knife® Perfexion™ radiosurgery system produces finely focused beams of gamma radiation, maximizing accuracy, safety and patient comfort. This procedure is commonly used to treat patients with brain tumors, vascular malformations and functional disorders. It often takes less than one hour, with patients resuming their regular activities the next day. Patients do not need to stop their routine medications to undergo radiosurgery.

Endoscopic Endonasal Skull-Base Surgery

Endoscopic endonasal skull-base surgery is a minimally invasive surgical technique performed through the nose in order to remove brain tumors, pituitary tumors and other lesions at the base of skull. An endoscopic camera — along with surgical equipment — is inserted through the nose, allowing the surgeon to navigate to the tumor safely and remove it without any large incisions. This procedure often takes less than four hours to complete, and patients typically go home in one to three days. Patients who have this procedure done usually have shorter anesthesia times, improved outcomes, faster recovery, less pain and no scars compared to traditional open brain surgery.

Endoscopic Brain Surgery

Endoscopic brain surgery is a minimally invasive surgical technique utilizing a high-definition lighting instrument connected to a camera for visualizing different regions of the brain. The endoscope can be used in virtually any part of the brain through minimally invasive routes, with accuracy of less than a few millimeters. The result is improved outcomes for the patient. This technology is now allowing surgeons to treat lesions of the skull base, pituitary, pineal gland and ventricles with smaller incisions, increased success and lower risk.

Brain Port Surgery

Brain port surgery is a minimally invasive surgical technique performed through a specially designed tube about the size of a dime. The neuro-endoport is inserted into the brain with millimeter accuracy and is used as a channel to guide the surgeon and their instruments to various regions of the brain. During the procedure, an endoscope is inserted into the tube, providing a powerful light source and high-definition imagery of the lesion and its surrounding structures. Since the entire procedure is done through the neuro-endoport, it minimizes trauma to the brain and surrounding tissue. This technique is used often for tumors within the substance of the brain as well as those within the fluid-filled spaces of the brain such as the ventricles. Patients who have this procedure typically have a faster recovery, less pain and minimal scars compared to patients who undergo traditional open approaches.

Endoscopic Microvascular Decompression

Endoscopic microvascular decompression is a minimally invasive surgical technique done through a small incision behind the ear to treat conditions like trigeminal neuralgia, hemifacial spasm and other forms of neurovascular compression syndromes. The neurosurgeon uses an endoscope to identify where a blood vessel is compressing the nerve of interest as it leaves the brainstem. The surgeon then delicately separates the blood vessel away from the nerve with a small piece of Teflon felt, leaving a space in between. By doing this, the abnormal compression of the cranial nerve is relieved. The result is a higher percentage of patients with symptomatic relief when awakening from the procedure and a lower complication rate due to less retraction, better visualization and improved illumination.

Neuroendovascular Surgery

Neuroendovascular surgery is a specialty within the fields of radiology and neurosurgery. It is a minimally invasive technique performed by threading catheters through an artery or vein, allowing the surgeon to diagnose and treat the problem without an incision. This procedure is commonly used to treat neurological disorders such as stroke, malformed blood vessels, aneurysms and pseudotumor cerebri. By using this technique, patients experience more positive outcomes, the movement of sensitive tissues is reduced, recovery time is faster and there are fewer complications than conventional surgery.

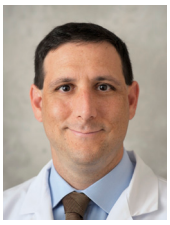
Laser Interstitial Thermal Therapy

Laser Interstitial Thermal Therapy (LITT) is a minimally invasive surgical technique often used for tumors within the substance of the brain unresponsive to traditional treatments, including surgery, radiation therapy, radiosurgery, and chemotherapy. LITT is a diode-laser technology that uses light energy via a laser probe to irreversibly and precisely destroy tumor tissue and tissue damaged by radiation necrosis. A relatively new technology only being offered at a handful of centers around the United States, LITT is not usually an upfront treatment in the management of intracranial disease, but rather is a tool currently being used for patients for whom no other reasonable option exists. Studies suggest it provides benefit for patients with unresectable intracranial neoplastic disease and in patients with symptomatic radiation necrosis.

Traditional Open Surgery

In addition to minimally invasive surgical approaches, our team is trained and experienced in all traditional approaches to the brain. This expertise allows our neurosurgeons to develop the best treatment plan for each patient, utilizing the technique or combination of techniques that offers the best opportunity for returning the patient to normal life. Although some lesions can be treated by a MIBS approach, individual characteristics of the problem relative to each patient's anatomy may make an open approach safer or more successful.

Our Team



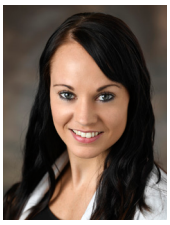
Melvin Field, MD
Director of Minimally Invasive Brain Surgery
Co-director of Gamma Knife and Neuro-Oncology Programs

Dr. Field is an associate professor of neurosurgery at University of Central Florida's College of Medicine, and is a practicing partner at Orlando Neurosurgery. Dr. Field is the past president of the Caribbean Association of Neurological Surgeons. He completed his undergraduate and medical school training at the University of Florida, where he was a Florida Academic Scholar and graduated with the highest honors. Dr. Field then completed his internship in general surgery and residency in neurological surgery at the University of Pittsburgh Medical Center.

Dr. Field has been performing endoscopic skull-base surgery in Central Florida since 2003, and has evaluated more than 2,500 patients for these minimally invasive procedures. He has taught endoscopic skull-base techniques at meetings and courses throughout the world during the past decade, and he routinely lectures on this topic.

He is one of the first surgeons in the country to integrate neuro-endoscopy into the management of various forms of neurovascular compression syndromes, such as trigeminal neuralgia and hemifacial spasm, and has both lectured and taught nationally on endoscopic microvascular decompression (eMVD) for these disorders.

Dr. Field also brought intraoperative MRI (iMRI) and laser interstitial thermal therapy (LITT) to the Central Florida region in order to improve care and expand the treatment options for patients with brain tumors. He has authored multiple publications in peer-reviewed journals and given more than 100 presentations at both national and international neurosurgical meetings.



Denal Wilson BSN, RN, OCN
Minimally Invasive Brain Surgery and Gamma Knife Care Coordinator

Denal Wilson received her nursing degree from Keiser University in Sarasota, Florida. She began her nursing career at Florida Hospital in 2007. She has previous experience in oncology leadership, and now specializes in minimally invasive brain surgery and Gamma Knife radiosurgery.

Case Conference

Through a process called case conference, our multidisciplinary team of physicians discuss each patient's condition and together determines the best treatment option for the patient. Once you contact the nursing coordinator, all meaningful medical records, scans and any other diagnostic tests that have been used to that point in your clinical workup are compiled. You will then be scheduled to meet with different physicians depending on the diagnosis. You could also be scheduled for additional tests that will help our team determine the best possible treatment options for your brain disorder.

Test results will be sent to the specialist for utilization during your evaluation appointment. At the conclusion of your evaluation, all of the specialists who have seen you will meet to discuss the best treatment option. You will then be notified by the MIBS team about the results of the case conference and the physicians' recommendations for treatment. If you wish to proceed with the recommended treatments, we will expedite scheduling of the procedure.

For more information and to schedule an appointment, call (407) 303-7944 or visit FloridaHospitalNeuro.com.

About the Florida Hospital Neuroscience Institute

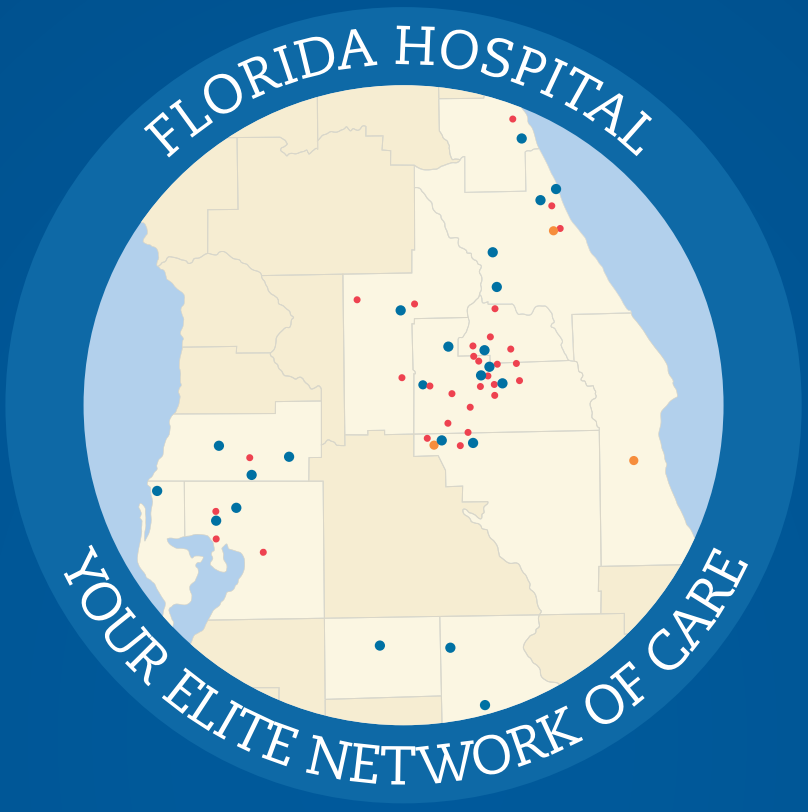
The Florida Hospital Neuroscience Institute is one of the most comprehensive facilities for adults and children, specializing in minimally invasive brain surgery, epilepsy, spine, stroke, sleep disorders, and interventional neuroradiology.

Our integrated, interdisciplinary, team approach combines state-of-the-art, minimally invasive technology with innovative research to provide patients with an exceptional, multifaceted level of care. From detection and treatment to rehabilitation, the Institute is dedicated to achieving superior patient outcomes in a compassionate environment for both adult and pediatric patients.

FLORIDA HOSPITAL: THEN AND NOW

Established 1908:	*Today:*
1 DOCTOR	MORE THAN 2,400 PHYSICIANS
20 BEDS	MORE THAN 2,800 BEDS
LESS THAN 10 EMPLOYEES	MORE THAN 22,000 EMPLOYEES
SERVING LOCAL ORLANDO RESIDENTS	SERVING PATIENTS AROUND THE WORLD

Notes



The Florida Hospital Neuroscience Institute
is a trusted member of one of America's
largest, not-for-profit healthcare systems.

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