2014 Outcomes Report

Baptist Health Neuroscience Center

BAPTIST HEALTH SOUTH FLORIDA
# Our Mission

Baptist Health Neuroscience Center’s mission is to provide our community with high-quality, cost-effective and compassionate neurological and neurosurgical care. Our program is committed to fostering a multidisciplinary approach to patient- and family-centered care that is founded on evidence-based medicine, research, education and advanced technology.

# Our Vision

Baptist Health Neuroscience Center will be the premier provider of comprehensive, state-of-the-art neuroscience services both nationally and internationally. As we expand our services, we will continue to achieve the highest level of patient safety, clinical outcomes and patient satisfaction.

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Outcomes Report

We are pleased to share with you our first Baptist Health Neuroscience Center Outcomes Report. It provides an overview of our mission, an explanation of our programs and services and detailed outcomes data.

Baptist Health Neuroscience Center — one of Baptist Health South Florida’s Centers of Excellence — leverages innovation and technology to offer the most advanced care to patients who live in our community and travel here from other parts of the country and world.

Because our mission ultimately is about providing the patient with high-quality and compassionate healthcare for often complex and severe conditions of the brain and spine, this report includes the words and experiences of some of our patients, who describe in human terms their experiences at our Center.

Like other world-class organizations, we believe in transparency, which includes openly sharing data about our results. We are extremely proud of our achievements and are always focused on making process and quality improvements based on medical evidence and national best practices.

Baptist Hospital, in partnership with Baptist Health Neuroscience Center, is certified as a Comprehensive Stroke Center from The Joint Commission and the American Heart Association/American Stroke Association. We are the first hospital in South Florida, the second in the state and one of only a few nationwide to receive this esteemed distinction. Comprehensive Stroke Center status is the nation’s highest level of accreditation. It is earned only by those facilities that have state-of-the-art infrastructure, staff and training necessary to treat patients with the most complex strokes. We also are part of a countywide Stroke Network aimed at getting the quickest and best treatment for stroke patients. Under this collaboration with the Fire Officers Association of Miami-Dade, Baptist Hospital also is designated as a Comprehensive Stroke Center.

This is a particularly exciting time for us as we undertake a multimillion-dollar renovation and expansion that will support innovation through technology (see Building for the Future, at right).

In the end, our buildings, equipment and technology are tools — and tools are only as effective as the people using them. We owe our success to an acclaimed multidisciplinary team of physician specialists, highly trained nurses and an incomparable support staff.

Our mission will remain focused on serving our community by providing the best care the field of neuroscience can offer.

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What Is Neuroscience?

Neuroscience is the study of the structure and function of the body's nervous system, which includes the brain and spine. At Baptist Health Neuroscience Center, a multidisciplinary team provides comprehensive care using the latest technology to diagnose and treat patients with a wide range of neurological disorders, including stroke, brain tumors, epilepsy, cerebral aneurysms, brain and spinal vascular malformations, brain and spine conditions and injuries, and sleep disorders. The Center's treatment plans encompass a full scope of options, from conservative and noninvasive approaches to minimally invasive procedures and very complex surgeries. Many components make up the Center and all are essential and interdependent to meeting our goal of delivering the highest quality of care to our patients. As a Baptist Health Center of Excellence, the Neuroscience Center is committed to innovation and acquiring the latest technology to support the most advanced care.

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<td>Concussion Program</td>
<td>Physiatrists (spine and rehabilitation)</td>
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Baptist Health Neuroscience Center offers comprehensive and compassionate treatment for neurological conditions affecting the brain, spinal cord and peripheral nervous system. Established in 2001, the Neuroscience Center embraces a multidisciplinary approach to care for patients, which is a hallmark of Baptist Health’s Centers of Excellence. Each morning, every patient in the Neuroscience Center is evaluated by a team of neurointensivists, neurosurgeons, neurologists, neuroradiologists, nurses and other healthcare professionals, who review the case together. This rounding initiative — a national best practice — reflects our belief that face-to-face communication among physicians is essential to providing the best and most efficient care.

The Neuroscience Center has 56 beds dedicated to the neurosciences. The inpatient unit, which is located on the second floor of the Victor E. Clarke Pavilion at Baptist Hospital, has 36 regular inpatient beds and 12 progressive care beds. In addition, there are eight designated neuroscience critical care beds in the hospital’s Intensive Care Unit, where patients are under the supervision of neuro critical care-trained physicians. Patients in the progressive and critical care units have an extra level of care, 24 hours a day, called eICU LifeGuard. This electronic monitoring uses state-of-the-art technology that enables our intensivists and neuro critical care nurses to note subtle changes in patients’ conditions and to quickly intervene to prevent potentially life-threatening situations.

Many of our neuroscience team physicians are acclaimed for their clinical and educational expertise and hold appointments at Florida International University’s Herbert Wertheim College of Medicine. The Center has neuroscience-certified registered nurses and has pioneered the use of hospital unit-based practitioners, including neurohospitalists, neurointensivists, nurse practitioners and patient outcome facilitators, who focus on streamlining high-quality care in a safe and efficient manner.
Baptist Hospital is certified by The Joint Commission as a Comprehensive Stroke Center, which means we are equipped with the specialists and technology to treat the most complex stroke cases and provide the highest level of care. The hospital also is one of five hospitals designated as a Comprehensive Stroke Center in Miami-Dade County’s Stroke Network. We treat more stroke patients than any other facility in South Florida. The Center, staffed by a multidisciplinary stroke team that is available 24/7, offers the administration of thrombolytics, neurosurgery and neurointerventional procedures and a full range of rehabilitation services. Our mission is to return the patient to quick and optimal function through comprehensive, technologically advanced neurological and neurosurgical care.

The Baptist Emergency Stroke Team, known as B.E.S.T., launches into action when contacted by Fire Rescue that a stroke patient is en route to the hospital. Driven by the knowledge that “time is brain,” a B.E.S.T. responder nurse evaluates the patient upon arrival to expedite diagnosis and treatment.

Our program received the Gold Seal of Approval from The Joint Commission for meeting consistently high national standards of stroke care, as well as the Get With the Guidelines Stroke Gold Plus Achievement Award from the American Heart/Stroke Association for two consecutive years. In addition, Baptist Hospital was one of 13 hospitals in Florida to earn the 2013 Target: Stroke Honor Roll Award, a national quality initiative of the American Heart/Stroke Association with the goal of improving stroke care.

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<th>Stroke National Quality Measures</th>
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<th>FY 2013</th>
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<td>STK-1: VTE prophylaxis</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>STK-2: Discharged on antithrombotic therapy</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>STK-3: Patients with atrial fibrillation discharged on anticoagulant therapy</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>STK-4: Thrombolytic therapy administered</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>STK-5: Antithrombotic therapy administered by end of day 2</td>
<td>98%</td>
<td>99%</td>
</tr>
<tr>
<td>STK-6: Discharged on statin medication</td>
<td>100%</td>
<td>98%</td>
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<tr>
<td>STK-7: Stroke education</td>
<td>98%</td>
<td>100%</td>
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<tr>
<td>STK-10: Assessed for rehabilitation</td>
<td>100%</td>
<td>100%</td>
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<th>Stroke Turnaround-time Indicators</th>
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<th>FY 2013 Results</th>
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<td>Time from patient arrival to assessment by B.E.S.T. member.</td>
<td>&gt;80%</td>
<td>99%</td>
<td>100%</td>
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<td>Time from notification of B.E.S.T. Responder R.N. to arrival at bedside.</td>
<td>&gt;80%</td>
<td>97%</td>
<td>99%</td>
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<td>Time from order of labs to results reported to B.E.S.T. member.</td>
<td>&gt;80%</td>
<td>95%</td>
<td>94%</td>
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<td>Time from order of a diagnostic brain image to results reported to a B.E.S.T. member.</td>
<td>&gt;80%</td>
<td>97%</td>
<td>98%</td>
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<td>Time from order of ECG to results reviewed by a B.E.S.T. member.</td>
<td>&gt;80%</td>
<td>99%</td>
<td>100%</td>
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<td>Time from patient arrival to administration of IV thrombolytic (t-PA) treatment (door to needle time).</td>
<td>60 min.</td>
<td>1 hr. 23 min.</td>
<td>60 min.</td>
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<tr>
<td>Time from neurosurgical consult ordered to evaluation by phone.</td>
<td>&gt;80%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Time from neurosurgical consult ordered to evaluation at patient bedside.</td>
<td>&gt;80%</td>
<td>100%</td>
<td>100%</td>
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Hank Klein, a well-known South Florida business and civic leader, suffered a devastating stroke behind the wheel of his car, causing a minor accident and leaving him paralyzed and semiconscious.

At Baptist Hospital, a diagnostic brain scan revealed severe damage: a blocked carotid artery, which had shut down the left side of his brain. He needed intervention to save his life.

In a minimally invasive procedure, accessing the blockage through an artery in the groin, an interventional neuroradiologist was able to reconstruct Mr. Klein’s carotid artery and remove the clot, restoring blood flow to the brain and initiating his recovery.

Mr. Klein spent 17 days at Baptist Hospital, followed by intensive physical and speech therapy. He was later able to return to work. Mr. Klein and his wife, Lisa Sloat, were so grateful for the high-quality treatment he received, and the compassionate manner in which it was given, that they joined Baptist Health Foundation’s Founders Society. “There’s an attitude of caring at Baptist,” Mr. Klein said. “So much caring.”
Offering one of South Florida’s most unique comprehensive back and neck care programs, Baptist Center for Spine Care provides patients access to a vast range of medical expertise and advanced technology. The Center is staffed by two Baptist Health Medical Group physiatrists — nonsurgical experts in physical medicine — who take a conservative, holistic approach to spine care, including hands-on manual medicine, injections and medication management. Our physiatrists meet with patients first to develop an individualized plan designed to restore function and mobility. Noninvasive treatment options include physical therapy, massage, spinal bracing, nutritional management, alternative treatments and behavior modifications. Consultations with neurologists, physical therapists, nutritionists, pain medicine specialists, psychologists and neurosurgeons may be ordered. In some cases, surgery is recommended. For those who need surgery, expedited surgical consultation is often available.

Severe back pain had diminished the quality of life of Miami-Dade teacher Larry Moss, 67. On his first visit to the Baptist Center for Spine Care, he spent 1½ hours with the medical director, who ordered a workup of tests leading to the diagnosis of degenerative arthritis of the lumbar spine, including two herniated disks. “I told the doctor I needed to get some relief from all this pain that affects me mentally and emotionally,” Mr. Moss said. “He was very, very thorough.”

The conservative treatment plan included therapeutic exercises, a walking routine and a weight-loss program. Mr. Moss met several times with the Center’s dietitian, who educated him about nutrition and offered meal choices, such as Greek yogurt and peanut butter on whole-wheat toast for breakfast and unsalted almonds or fruit for a snack.

He embraced the new eating style and started walking around his Cutler Bay neighborhood, working his way up to 3.5 miles. Within a few months, he had lost 19 pounds — and was nearly pain-free. “I’m eating good foods that give me energy,” Mr. Moss said. “I don’t have one-tenth of the back pain I had, largely because of the nutritional meal plan and the exercise.”

FAST FACTS

About **80 percent** of people experience back pain in their lifetime.

Back pain is the **leading cause** of disability worldwide.

Most cases of **back pain** are not caused by serious conditions.
Our neurosurgeons have years of experience in minimally invasive and traditional spinal surgeries and our program maintains some of the lowest complication rates in the region. Many patients are able to return home the same day as their surgery.

Sophisticated technology such as the O-arm Surgical Imaging System increases accuracy and safety during complex spinal surgeries, and intraoperative CT imaging allows for the advanced management of such cases.

Minimally invasive techniques for back surgery use smaller incisions, causing less damage to surrounding tissues and reducing pain, recovery time and hospital stay.
A brain tumor diagnosis is devastating news. The Brain Tumor Program team understands this and supports patients and their families from diagnosis to recovery. Our team is committed to the highest standards of scientifically advanced treatment, delivered with a warm human touch. Our neurosurgeons routinely perform complex, innovative procedures using the most advanced technology, including neuronavigational equipment that integrates MRI or CT scanning to approach tumors in a more precise and less invasive way. The addition of an intraoperative MRI in the near future will give neurosurgeons the ability to see detailed, real-time images as they operate on the brain and confirm the removal of an entire tumor mass prior to completing the procedure.

Surgical options include “awake” craniotomies with brain stimulation and cortical mapping. These technological tools make it possible to safely remove tumors from areas of the brain that were previously believed to be inoperable.

We use a multidisciplinary approach for patients with complex lesions located at the base of the skull. These patients benefit from the expertise not only of neurosurgeons, but also ear, nose and throat specialists and plastic surgeons. Patients with spinal tumors may be treated with minimally invasive kyphoplasty for vertebral compression fractures or may need more complex “separation surgeries” to decompress the spinal cord and stabilize the spinal column with instrumentation.

Our patients also have less invasive options to treat tumors. Baptist Hospital is the only facility in Miami-Dade and Monroe counties to acquire groundbreaking radiation therapy technology called TrueBeam STx. The technology, which maximizes radiation to the tumor and minimizes exposure to healthy, surrounding tissue, gives doctors the ability to treat many cancers that were previously difficult to treat. TrueBeam has the capability to treat brain tumors using standard external radiation and stereotactic radiosurgery.

The Gamma Knife Program at Doctors Hospital offers a noninvasive form of radiosurgery that uses gamma rays to treat certain brain tumors, including metastases. All tumor cases are regularly presented to the Tumor Board, a panel of specialists including surgeons, cancer specialists, pathologists, radiologists and allied healthcare professionals who customize treatment recommendations for each patient.

There are an estimated 141,553 people currently living with brain and other nervous system cancers in the U.S.
Bill McQueen found out on his 50th birthday that his headaches, blurred vision and weak right leg were caused by a meningioma, a benign tumor that develops in the membrane surrounding the brain and spinal cord. Imaging tests also revealed a brain aneurysm, a dangerous bulge in an artery. First, a Neuroscience Center interventional neuroradiologist performed a noninvasive, catheter-based procedure to cut off the blood supply to the aneurysm so it wouldn’t burst. Then a neurosurgeon at the Center successfully removed the lemon-size tumor.

A few years later, another tumor appeared, this time behind Mr. McQueen’s nose. His neurosurgeon was joined by an otolaryngologist in the operating room; together, they removed the tumor without an incision by accessing the area through the nose and sinuses. Mr. McQueen later experienced a fairly common complication that required further surgery.

Today, at 54, the Florida Keys welder is doing well and credits his medical team at the Neuroscience Center. “I feel fine,” Mr. McQueen said. “Not only are these doctors able to perform very complicated surgeries, but they are always careful to plan incisions where there won’t be a lot of scars. They care how I’ll look after surgery.”

Primary malignant brain tumors affect more men than women, while benign brain tumors affect more women.

More than 120 types of brain tumors exist, but nearly two-thirds are meningiomas or gliomas.
Working closely with the Epilepsy Program, our Neurophysiology Department is one of the few full-service labs in Florida offering advanced neurodiagnostic testing. Our team performs electroencephalograms (EEG), video EEG, ambulatory EEG, critical-care EEG monitoring, evoked potentials, Wada, electrocorticography, cortical brain mapping, spike 3D source localization and nerve conduction studies. Our team provides neurophysiologic monitoring during spine and epilepsy surgeries, as well as for the surgical treatment of tumors and vascular malformations. Intraoperative monitoring helps protect vital brain and spinal cord function and provides continuous feedback to the surgeons as they operate.

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<th>Intraoperative Monitoring</th>
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<tbody>
<tr>
<td>Cases Monitored</td>
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<td>FY 2010</td>
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<td>493</td>
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Intraoperative monitoring ensures that nerves are protected from possible damage during neurosurgery.

This monitor is showing EEG waveforms performed on a patient.

**FAST FACT**

A 30-minute electroencephalogram (EEG) can record 180 million chemical reactions.
Diagnostic Neuroradiology

Diagnostic neuroradiology is a crucial component of diagnosing and treating any neurologic condition. Our team includes 12 neuroradiologists who are fellowship-trained in the imaging and diagnosis of brain, spine, and head and neck diseases. The department is one of the only nonacademic centers in South Florida where exams are interpreted only by Certificate of Added Qualification (CAQ) neuroradiologists.

Magnetic resonance imaging procedures offered include MRI, MR angiography, MR spectroscopy, MR perfusion, functional MRI, diffusion tensor imaging (DTI) and diffusion tensor tractography (DTT), as well as quantitative and qualitative cerebral spinal fluid (CSF) flow analysis. All MR imaging is performed on state-of-the-art systems. Computed tomographic imaging is performed on the latest high-definition, dual-energy, multislice CT scanners using protocols tailored for each body part and clinical diagnosis to ensure the highest-quality imaging at the lowest possible radiation dose. Our CT services include CT imaging, CT angiography and CT perfusion. Our neuroradiologists were among the first in the nation to perform CT angiography and CT perfusion on acute-stroke patients. These procedures can quickly pinpoint brain injury details and reveal lifesaving treatment options.

Our imaging department also participates in initiatives such as “Image Gently” for pediatric patients and “Image Wisely” for adults, to reduce the amount of ionizing radiation used during imaging exams.

**FAST FACTS**

In 2013, **23,286** neurologic CT exams and **11,255** neurologic MRI exams were performed at Baptist Hospital.

Baptist Hospital has two **3-Tesla MRI machines** which provides neuroradiologists a more detailed look at the brain.
Neurovascular Surgery

Our neurovascular team members are experts in diagnosing and treating neurovascular diseases of the brain and spinal cord, including stroke, atherosclerosis, aneurysms, arteriovenous malformations (AVMs), arteriovenous fistulas and intracerebral hemorrhages. While the minimally invasive, endovascular approach is always preferred, sometimes open surgery is required to address these conditions. Our neurovascular specialists and neurointerventional radiologists team up to offer patients the latest technology and most advanced techniques.

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<th>Neurosurgical Mortality</th>
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<td>2010 (n=182)</td>
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<td>1.2%</td>
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Source: The American College of Surgeons National Surgical Quality Improvement Program (NSQIP)

A decade ago, at age 23, Central Florida resident Noemi Spears had a stroke, leaving her numb on the left side. This was the first sign that she had a rare condition characterized by dangerous tangles of fragile blood vessels known as arteriovenous malformations, or AVMs. Her first brain surgery in Tampa was not a success. Over the years, her crushing headaches grew worse and she started losing her vision. Ms. Spears came to the Neuroscience Center for a second opinion after her Tampa doctors concluded her sight could not be saved because the AVM was located within the brain’s visual cortex. “The doctors at Baptist gave me hope,” Ms. Spears said.

An interventional neuroradiologist threaded a catheter from a blood vessel in her thigh up into her brain and inserted a substance that stopped the blood flow to the AVM. After that, a neurovascular surgeon opened her skull and safely removed the AVM. Ms. Spears left Baptist Hospital the next day. Within weeks, her vision returned to normal. And, although it wasn’t expected, she regained the feeling on her left side that she had lost years before.

Today, Ms. Spears envisions a bright future. “I wake up without headaches. I’m able to see. I feel completely healed, so alive.”

FAST FACTS

Approximately 6 million Americans have silent, unruptured aneurysms, or bulges in blood vessels that usually cause no symptoms but can be life-threatening.

Arteriovenous malformations, or AVMs, are tangles of abnormal blood vessels that can occur in the brain, spine, lungs, kidneys and skin, but are most common in the brain.
Interventional Neuroradiology

Interventional neuroradiology is an emerging field of expertise that uses a minimally invasive, endovascular approach to treating vascular problems in the brain and spinal cord. Teaming up with Miami Cardiac & Vascular Institute, the Neuroscience Center is equipped with two technologically sophisticated neurointerventional biplane suites. Through a small incision in the groin, our two interventional neuroradiologists can treat ruptured and unruptured aneurysms, AVMs of the brain and spine, blocked arteries and acute strokes. They use catheters to thread tiny instruments through the blood vessels to access the brain or spine and correct the problem. They often care for patients with complex conditions that other facilities were unable to treat. Our team also offers the most advanced clinical trials for treatments of brain aneurysms, vascular malformations and acute stroke. In 2013, more than 100 aneurysms, including 27 that had ruptured, were treated without any complications.

When an aneurysm ruptures and bleeds into the area surrounding the brain, it is called a subarachnoid hemorrhage and often causes a sudden and severe headache.

Baby boomers Mignon Gordon and Martin Israel plan to be married soon. But they already have much to celebrate. Both suffered life-threatening brain aneurysms less than nine months apart that were successfully treated with minimally invasive procedures at Baptist Health Neuroscience Center.

After passing out with her eyes open, Ms. Gordon was diagnosed with six aneurysms. Because her mother had died of a ruptured brain aneurysm, she needed urgent treatment. In two separate procedures, Ms. Gordon’s intracranial aneurysms were repaired with stent-assisted coil embolizations. Through an incision in her leg, a catheter was guided through her aorta and into her brain. Stents were placed and platinum coils were inserted into the aneurysms’ bulge to seal them off while preserving the artery’s normal blood flow.

When Mr. Israel complained of a severe headache a year later, Ms. Gordon rushed him to the ER. A CT scan revealed his ruptured aneurysm — and the blood that had flooded his brain. Nearly 40 percent of patients with aneurysms that rupture die or are left with permanent neurological damage. Mr. Israel is one of the lucky ones. During his minimally invasive coil embolization, a metal coil was inserted into the ruptured vessel, causing a clot to form, which stopped the brain bleed.

The couple will always be grateful. “These are the greatest doctors in the world,” Mr. Israel said. “As bad as it was, it was wonderful. We were both given second chances in life.”
Epilepsy Program

Between 2 and 3 million Americans are affected by epilepsy and seizures, which are caused by a disruption in the brain’s electrical activity. Our Epilepsy Program, one of a handful in Florida, brings together Neuroscience Center experts in a Level 3 Epilepsy Center designated by the National Association of Epilepsy Centers. Our specialized neurologists, known as epileptologists, have comprehensive training in epilepsy treatment and neuro-physiological procedures. Our team suggests conservative options first, such as medication optimization and a ketogenic diet. The program also was developed to take on challenging cases, including the 20 percent of people with drug-resistant epilepsy. Those patients receive a weeklong, multidisciplinary evaluation, including a battery of sophisticated brain imaging tests to pinpoint the source of the seizures.

Our physicians collaborate with neurophysiology and imaging experts and with Florida International University’s Biomedical Engineering Department, using video EEG, MRI, ictal or interictal SPECT scans, functional MRI, spike 3D source localization and Wada testing, to determine the location of the seizure foci.

Each case is presented at an Epilepsy Conference, at which a multidisciplinary team including an epileptologist, neurologist, neurosurgeon, neuroradiologist, neuropsychologist and social workers collaborate to recommend the best treatment options.

Patients whose seizures can’t be controlled with conservative treatment are offered surgical options, such as vagus nerve stimulation or resective surgery.

Max Jaitt had his first seizure at age 7. The grand mal lasted close to seven hours, marking the beginning of a debilitating cycle of unpredictable episodes.

For nearly three decades, the seizures continued, likely caused by several factors, including neurofibromitosis, a genetic disorder of the nervous system. Medications helped only for short periods of three weeks or less.

Mr. Jaitt underwent the Epilepsy Program’s weeklong evaluation for people with drug-resistant seizures, including sophisticated tests to better understand their location in the brain. Doctors were targeting one lesion for surgery but decided first to try a new anti-seizure medication, clobazam, which had been successful in Europe and Canada. Since he started the medication, Mr. Jaitt has been seizure-free.

“Never in his life has he been without a seizure for this long,” said his grateful father, Miguel Jaitt.

Max Jaitt is now looking forward to realizing his life’s dream — to have a job. “I’m going to be relaxing, and he’s going to be working,” Miguel Jaitt said, smiling at his son.

The annual economic cost of epilepsy is an estimated $15.5 billion in healthcare costs and losses in employment, wages and productivity.
Neuroscience Critical Care Unit

Our critically ill patients are in excellent hands. Inside Baptist Hospital’s 32-bed Critical Care Unit is an eight-bed Neuroscience Critical Care Unit. This unit offers advanced technology and services to provide rapid, multidisciplinary medical and nursing care to our most ill patients. Neuroscience Critical Care coordinates resources and provides patients with strict observation, specialized physiologic monitoring, extraordinary measures and mechanical aids to support life. Our Critical Care Unit received the American Association of Critical-Care Nurses’ Beacon Award for Excellence, which signifies exceptional care through improved outcomes and greater overall satisfaction.

We also are one of the few hospitals in South Florida with a dedicated critical care EEG (cEEG) monitoring service. cEEG monitors patients’ brain activity in an effort to prevent or correct potentially lethal neurologic conditions, such as nonconvulsive seizures. The unit also is equipped with advanced monitoring systems, such as brain perfusion monitoring, pupilometer and component neuromonitoring. These systems detect pupil size, vasospasms, blood flow and brain-tissue oxygenation, alerting neurointensivists to changes in the patients’ condition.

The eICU’s electronic monitoring has resulted in 1,503 interventions to support advanced care for patients in Baptist Hospital’s Neuroscience Critical Care and Neuroscience Progressive Care Units.
Pain Management Center

Our Pain Management Center is staffed by two Board-certified pain management specialists and two nurse practitioners. The only hospital-based program of this kind in a private community hospital in South Florida, the Pain Center manages an average of 4,000 office visits, 2,000 pain-specific procedures and more than 5,000 hospitalized patient visits per year. We tackle all types of painful conditions, including acute and chronic spine pain, arthritic and cancer-related pain, and upper- and lower-extremity pain. Using a variety of advanced treatment options, which include interventional pain procedures, medication therapy and rehabilitation programs, we achieve a higher than 85 percent success rate in improving our patients’ function and quality of life.

David Moore was driving from Chicago to Miami to take care of his ailing mother when he was run off the road on Interstate 95. “The next thing I knew I was in a helicopter,” Mr. Moore recalled. His arms and legs were crushed, requiring 18 operations. When the pain in his legs remained severe and unremitting, his mother suggested he visit the Pain Management Center. “It was the best thing I ever did,” Mr. Moore said. After conservative treatments alone did not quell his pain, he had a pump surgically implanted under the skin of his abdomen. It automatically delivers a constant rate of pain medicine directly to his spinal cord, bypassing the bloodstream. “The pump gave me so much more freedom. If I had to take the drugs orally, I wouldn’t feel good about driving or doing anything that required concentration.” Every two months or so, Mr. Moore returns to the Center for his pump to be refilled with medication, which is done with a simple injection. “It’s very convenient,” he said. Though at 61 he is on disability, he lives independently and comfortably. He is grateful for the time he got to spend with his mother and for her referral to the Center. “There aren’t words to describe how happy I am with the ongoing care I get there,” Mr. Moore said.

FAST FACTS

An estimated 100 million Americans suffer from chronic pain — that’s more than those who have diabetes, heart disease and cancer combined.

At least several nights a week, pain disrupts the sleep of about 20 percent of American adults.
Baptist Hospital is the recipient of the prestigious Magnet designation for excellence in nursing practices and quality patient care. Magnet designation is the highest honor given by the American Nurses Credentialing Center and is accepted nationally as the gold standard in nursing excellence. Less than 7 percent of the hospitals in the nation have achieved Magnet recognition.

Baptist Hospital’s Critical Care Center also was awarded a Gold Level Beacon Award by the American Association of Critical-Care Nurses. For patients and families, this award signifies exceptional nursing care through improved outcomes and greater overall satisfaction.

**FAST FACT**

Baptist Health Neuroscience Center’s *specialized nursing staff* includes Certified Neuroscience Registered Nurses and Stroke Certified Registered Nurses.
The nervous system can be damaged by trauma, structural defects and degenerative diseases such as Parkinson’s, tumors, aneurysms and stroke. The Baptist Neurological Rehabilitation Program provides inpatient and outpatient physical, occupational, speech and therapeutic recreation therapy to help patients achieve their optimum recovery. Our program is accredited by The Joint Commission and the Commission on Accreditation of Rehabilitation Facilities. We have earned accreditation in six areas, including inpatient and outpatient stroke and brain injury, as well as general inpatient and outpatient rehabilitation.

Patients in the inpatient stroke rehabilitation program receive a minimum of three hours a day of individualized intensive therapy. Once graduated to the outpatient setting, our stroke patients can access additional specialty programs, including driving evaluations.

A brain injury can result from a trauma, such as a fall or accident, or a nontraumatic incident. Our brain injury program team understands that no two injuries are exactly the same. Our neuropsychologist focuses on helping patients and their family cope with changes in thinking and behavior after a brain injury while recognizing incremental improvements. Our post-concussion program helps people with mild traumatic brain injury understand the need to “cognitively rest” and guides athletes of all ages toward a safe and graduated return to play.

The Outpatient Rehabilitation department implemented ImPACT testing for patients and athletes who have suffered a concussion. This internationally recognized software allows a patient to be tested prior to an injury, establishing a baseline, as well as post-injury. Cognitive scores are then assessed and compared to a person’s baseline and national norms. This test is a good indicator of the severity of the brain injury and the recommendations needed to ensure full brain recovery. Sports-related concussions continue to receive a great deal of media attention. The Concussion Program has provided injury- and concussion-prevention education to athletes, parents and coaches throughout the community.

**FAST FACTS**

More than 600 neurological disorders and conditions affect the human nervous system.

Our program, which is part of a nationwide database, surpassed the national average in all metrics for inpatient and outpatient rehabilitation.
Our Sleep Diagnostic Center is a six-bed lab fully accredited by the American Academy of Sleep Medicine and equipped to treat such disorders as obstructive sleep apnea, parasomnias, insomnia and REM-behavior disorders. Our sleep medicine physicians represent the fields of neurology, pulmonology and otolaryngology. Treatments include behavior modifications, medications, the use of oral appliances, continuous positive airway pressure (CPAP), bi-level positive airway pressure (BiPAP) and surgery. We also sponsor a quarterly community outreach program called AWAKE (Alert, Well And Keeping Energetic). Free and open to the public, AWAKE meetings present information about sleep disorders, CPAP usage and the importance of compliance, among other educational issues.

FAST FACTS

Before television, **75 percent** of people dreamed in black and white. Now, only 12 percent report black-and-white dreams.

More than **two in 10** people suffer from a significant sleep disorder.

Sleep disorders can cause an **increased risk** of diabetes and heart disease.
The Neuroscience Center believes in the importance of continuing education — not only for medical professionals, but for the community we serve. Our medical professionals are offered neuroscience-related conferences and can participate in our annual regional meeting known as the Miami Neuro Symposium.

Part of being a comprehensive stroke center in the Miami-Dade County Stroke Network includes educating our community about risk factors, signs and symptoms and preventive measures for neurologic diseases. We present free programs, webcasts and radio addresses, and offer information through social media, about the spine, stroke and other neurological conditions and topics. We also offer the Life After Stroke Support Group, where stroke survivors and their families or caregivers are given the educational tools and emotional support needed to get them through this difficult time. The goal of the support group is to help alleviate fears and concerns through education and group discussions.

Physicians from Baptist Health Neuroscience Center participate in clinical trials on ischemic stroke and brain aneurysms. They also publish articles in medical journals and lecture at scientific meetings worldwide each year.
Baptist Health Neuroscience Center and Baptist Hospital accreditations:
The Joint Commission, Baptist Hospital
The Joint Commission, Comprehensive Stroke Center
American Nurses Credentialing Center Magnet Designation
The Joint Commission and the Commission on Accreditation of Rehabilitation Facilities, Stroke and Brain Injury Neurorehabilitation Programs
Intersocietal Commission for the Accreditation of Vascular Laboratories, Peripheral Vascular Laboratory
American College of Radiology, MRI and CT
Accreditation Council for Graduate Medical Education, Fellowship in Vascular and Interventional Radiology
The Neuroscience Center also adheres to quality standards suggested by the Society of Interventional Radiology, American College of Radiology, Society for Vascular Surgery, the American College of Surgery, the American Heart/Stroke Association and the National Association of Epilepsy Centers.

U.S. News & World Report, high-performing in Neurology and Neurosurgery

About Baptist Health

Baptist Health Neuroscience Center is located on the campus of Baptist Hospital of Miami, one of the region’s most preferred and recognized medical centers. It is part of Baptist Health South Florida, the largest faith-based, not-for-profit healthcare organization in the region. Baptist Health also includes Miami Cardiac & Vascular Institute, Baptist Children’s Hospital, South Miami Hospital, Doctors Hospital, Homestead Hospital, Mariners Hospital, West Kendall Baptist Hospital, Baptist Outpatient Services and Baptist Health Enterprises. Baptist Health Foundation, the organization’s fundraising arm, supports services at all hospitals and facilities affiliated with Baptist Health. In the U.S. News & World Report’s Best Hospitals in 2014, eligible Baptist Health hospitals received a total of 24 national high-performing medals, more than any other regional healthcare system. In addition, Baptist Health has been recognized each year for the past decade as one of Fortune magazine’s 100 Best Companies to Work For and, since 2011, has been named one of the World’s Most Ethical Companies by the Ethisphere Institute.