Memorial Hermann-Texas Medical Center

Annual Report | 2026

UTHealth Houston

MEMORIAL HERMANN Texas Medical Center

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A Year of Progress & Partnership

Welcome to the Memorial Hermann–Texas Medical Center (TMC) Annual Report, celebrating our 100-year anniversary. What began as Hermann Hospital in 1925 is now Memorial Hermann-TMC–the flagship hospital of one of the nation's preeminent integrated health systems. Memorial Hermann-TMC serves as a central hub for advanced, high-acuity care in one of the most dynamic and demanding medical environments in the country. This report reflects our commitment to clinical excellence, academic leadership and the collaborative partnerships that shape the care we deliver every day.

Located in the heart of the Texas Medical Center, the world's largest concentration of medical expertise, Memorial Hermann-TMC continues to evolve as a quaternary referral destination for the most complex and critically ill patients. Our teams manage some of the highest acuity cases in the region, providing comprehensive, multidisciplinary care supported by state-of-the-art technology, nationally recognized programs and a culture that prioritizes safety, innovation and outcomes.

As an academic medical center in collaboration with UTHealth Houston and its medical school, we take pride not only in delivering advanced care but also in advancing the field of medicine. Our faculty physicians, fellows, residents and researchers are engaged in leading-edge investigations, novel therapies and evidence-based approaches that elevate standards of care locally and nationally. This foundation of academic rigor strengthens every Service Line across the hospital and allows for patients to benefit from the latest knowledge and practices.

The past year brought continued recognition of our strengths, including sustained performance in *U.S. News & World Report* rankings across key specialties, with additional recognition for our achievements in specific procedures. We were also honored by Vizient with the Bernard A. Birnbaum, MD, Quality Leadership Award, ranking 7th nationally among other comprehensive academic medical centers for excellence in safety, mortality, effectiveness, efficiency, patient-centered care and equity of care.

These honors reflect the dedication of our teams and the trust placed in us by referring physicians, community partners and health care professionals throughout the region. In the pages ahead, you'll find high-level highlights from programs that had exceptional impact this year: Heart and Vascular, Neuroscience, Orthopedics, Gastroenterology, Geriatrics, Pulmonology, Obstetrics and Rheumatology. Each represents areas where Memorial Hermann-TMC is advancing care, expanding access and setting new benchmarks for quality.

This report reflects our belief that the best outcomes emerge from strong collaboration–within our own system and across the broader medical community. Whether you practice within Memorial Hermann or partner with us in caring for patients, your insight and engagement help strengthen the work we do.

As we look ahead, our focus remains on driving the next era of high-acuity care in Houston and beyond. We will continue investing in our people, our infrastructure and our academic partnership with UTHealth Houston to support innovation, expand clinical capabilities and offer high-quality, compassionate care to the patients we serve.

Thank you for your continued partnership and for entrusting us with your most complex cases. We look forward to working together in the year ahead to advance care, elevate outcomes and continue building a stronger, healthier future for the communities we serve.

Year in Review

Advancing Excellence Across Every Dimension

Throughout the past year, our work was defined by a shared commitment to excellence, innovation and the pursuit of better outcomes for every patient we serve.

A Growing Community of Internationally Recognized Physicians

Memorial Hermann-TMC continues to strengthen its position as a premier academic referral center through our experienced physicians with access to exciting clinical trials. Across specialties, our physicians drive groundbreaking work in advanced therapeutics, surgical innovation and translational research:

- Access to cutting-edge clinical trials, including first-in-human and first-in-Texas innovations
- Leadership in novel device development and evaluation, with many physicians serving as national principal investigators
- Rapid adoption of new technologies that give patients access to the latest treatment options
- Groundbreaking presentations at many national and international conferences, including Vizient and the Institute for Healthcare Improvement
- A culture that brings together academic rigor and high-acuity experience to elevate care for the most complex patients

Research That Accelerates Discovery

Research at Memorial Hermann–TMC spans all Service Lines, powering breakthroughs that advance how we diagnose, treat and manage disease.

- National leaders in research with access to thousands of clinical trials, giving patients early access to promising therapies
- Advancing medical knowledge in neurology and neurosurgery, cardiovascular medicine and surgery, oncology, trauma, orthopedics and more
- Ongoing research partnerships strengthen our impact across the Texas Medical Center and elevate the quality of care we provide
- Four affiliated UTHealth Houston departments that rank in the top 20 nationally for research grants: Anesthesiology, Neurology, Neurosurgery and Physical Medicine

Training the Next Generation of Leaders

As the primary teaching hospital of McGovern Medical School at UTHealth Houston, Memorial Hermann–TMC plays a central role in shaping the future of medicine.

- Home to 100+ fellowship programs with more than 1,300 residents and fellows on campus
- Robust exposure to high-acuity environments across trauma, cardiology, neurology, critical care, surgery and other specialties
- A training culture rooted in mentorship, academic inquiry and hands-on experience with complex cases

Nursing Excellence: A Decade of Magnet® Recognition

With more than 3,300 nurses, Memorial Hermann–TMC continues to build one of the most experienced and academically prepared nursing teams in the region.

- Nearly 10% of nurses have more than 20 years of experience
- Nearly 92% of nurses hold a bachelor's degree or higher in Nursing
- Achieved Magnet® designation for the fourth consecutive cycle, reflecting over a decade of nationally recognized leadership in nursing practice, safety and patient experience
- Continuous contributions to professional practice through evidence-based research, poster presentations, podium sessions, conference participation and implementation of innovations that directly improve patient care

Memorial Hermann-TMC at a Glance

Recognition & Awards

U.S. News & World Report

The past year brought national acclaim for quality, expertise and outcomes:

Nationally Ranked Specialties:

NO. **40** **Nationally in Orthopedics**

NO. **48** **Nationally in Neurology & Neurosurgery**

NO. **50** **Nationally in Gastroenterology & GI Surgery**

VIZIENT
Ranked No. 7 among Comprehensive Academic Medical Centers; Memorial Hermann TMC has sustained top-decile performance for 10 of the last 12 years.

BECKER'S HOSPITAL REVIEW
Great Innovation Programs recognition, Top 100 Hospitals

LOWN INSTITUTE
"A" ranking for social responsibility

AMERICAN NURSES CREDENTIALING CENTER
Fourth consecutive Magnet designation
2025 Nursing Innovation Fund Award for excellence in clinical advancement

AMERICAN ASSOCIATION OF CRITICAL CARE NURSES
Beacon Award for Excellence

EMERGENCY NURSES ASSOCIATION
Lantern Award, 2024–2027

AMERICAN COLLEGE OF SURGEONS NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM
Beacon Award for Excellence

1.8 million patient encounters over 115 years of service

BY THE NUMBERS

Medical staff **2,100+**	Employees **8,800+**
Residents & fellows **1,300+**	Nurses **4,100+**
Licensed beds **1,261**	Surgeries performed annually **34,300+**
Emergency visits **92,500+**	Memorial Hermann Life Flight® flights **4,100+**

A National Leader in Cardiovascular Excellence

By combining experienced physicians with cutting-edge resources and research, we are raising the bar for cardiovascular care.

The Larry D. Johnson Heart & Vascular Institute at Memorial Hermann-TMC provides innovative therapies and access to clinical trials while achieving recognition for outstanding outcomes in cardiovascular care. Dedication to improving patient care permeates all our cardiovascular specialty centers, garnering recognition from national subspecialty organizations such as the Society for Thoracic Surgeons (STS) and the American College of Cardiology (ACC).

We welcome patients with a broad spectrum of cardiovascular disease, from essential hypertension to combined heart failure and coronary artery disease. Our patient care is backed by our UTHealth Houston Heart & Vascular affiliated physicians who regularly participate in national conferences, lead clinical trials and teach the next generation of cardiologists and cardiothoracic surgeons. Their access to new technologies combined with significant bedside experience has made the Larry D. Johnson Heart & Vascular Institute an international leader in cardiovascular care.

TAVR That Consistently Outperforms National Benchmarks

For three consecutive years, the Institute has maintained a 3-star rating, the highest distinction possible, for transcatheter aortic valve replacement (TAVR), awarded by the STS and ACC TVT Registry. We are the only hospital in Texas and one of only 22 other centers in the nation to achieve this honor. The 3-star designation confirms our program consistently outperforms national safety and outcome averages in key metrics like mortality, stroke, bleeding and kidney injury within 30 days of the procedure.

The program's continued excellence stems from precision and collaboration. Every case is meticulously planned through a weekly Virtual Valve Conference. This multidisciplinary meeting brings together UTHealth Houston Heart & Vascular interventional cardiologists, surgeons, radiologists and structural heart coordinators to review and plan upcoming procedures, often including additional specialists for high-risk patients. The team uses advanced tools, such as image guidance software and 3D

AWARD WINNING CARE

Newsweek
America's Best Cardiac Hospitals 2025

American College of Cardiology
Heart CARE Center of National Distinction of Excellence

Transcatheter Valve Registry 3-Star Rating
3-star TAVR rating, among 5% of hospitals in the country, for the third year in a row

National Cardiovascular Data Registry (NCDR) Chest Pain - MI Registry®
Platinum Performance Achievement Award

NCDR CathPCI Registry®
4-star rating

Society of Thoracic Surgeons National Database
2-star rating overall for isolated CABG

Extracorporeal Life Support Organization
Platinum status as ECMO Center of Excellence

Society for Vascular Surgery® Vascular Quality Initiative®
2-star Rating

transesophageal echocardiography, to analyze CT scans, refine patient selection and determine the optimal device and access route. This meticulous, data-driven approach allows the team to anticipate patient needs, creating optimal conditions for technical and procedural success.

Platinum Status Awarded by the ACC Chest Pain - MI Registry®

Our advanced technologies and experienced affiliated interventional cardiologists and surgeons have streamlined access to lifesaving therapies for acute coronary syndrome patients and garnered Platinum status recognition from the ACC Chest Pain - MI Registry®. This dedication to quality is also reflected by our 4-star rating for ACC CathPCI Registry® Metrics.

Achieving optimal MI care is a team effort. Affiliated cardiologists and surgeons offer advanced procedural techniques and comprehensive care plans for every patient with coronary disease, specializing in high-acuity cases. Other specialties, such as emergency medicine and radiology, work closely with the Institute to coordinate care. Our chest pain coordinators act as architects of Platinum-level care, making daily, real-time suggestions to practice based on data review.

Our robust quality improvement programs have led to effective use of advanced technology and key process improvements:

- Communication technology: Consulting with paramedics on suspected MI cases reduces unnecessary delays, ensuring patients quickly reach a facility equipped for PCI.
- Advanced imaging: 4D intracardiac echocardiography provides high-resolution detail, allowing physicians to precisely adjust the intra-operative plan in real time, often leading to safer procedures with better results.
- Clinical support: Nurse practitioners in the cath lab facilitate collaboration with hospitalists, streamlining discharge medications and ensuring a smooth transition to home.

The core of these initiatives is a focus on patient-centered outcomes, ensuring each patient's treatment pathway aligns with their diagnosis and deploying cardiac rehabilitation early to support long-term cardiovascular health.

EXPERIENCE MATTERS FOR OUR HEART TRANSPLANT PATIENTS

Center for Advanced Heart Failure in affiliation with UTHealth Houston Heart & Vascular

Heart transplants	**420**
Ventricular assist device (VAD) implantations	**700**
Memorial Hermann one-year transplant survival:	**94.6%**
National average 1-year transplant survival:	**92.4%**
Memorial Hermann 1-year transplant survival for high-risk patients (INTERMACS groups 1 & 2)	**88.9%**
National average 1-year transplant survival for high-risk patients (INTERMACS groups 1 & 2)	**83.0%**

Improving Options for Heart Transplant Candidates

Since its founding in 2012, our Center for Advanced Heart Failure (CAHF), in affiliation with UTHealth Houston Heart & Vascular, has grown into a high-volume transplant center, offering extensive experience and achieving some of the best outcomes in the nation.

This success is powered by a team of UTHealth Houston Heart & Vascular physicians who work together to support heart health until a transplant is available: national leaders in cardiothoracic surgery, advanced heart failure and mechanical circulatory support. VADs are used as a bridge to transplant or as destination therapy, providing prolonged survival and improved quality of life for patients. Our team not only provides expert care but also drives research, holding leadership roles in national and international clinical trials.

We take pride in caring for high-acuity patients who benefit from the latest research and clinical trials. Our affiliated teams regularly review data from registries like INTERMACS, ELSO and SRTR, allowing for clinical pathways to incorporate the latest advancements. To further enhance survival and quality of life, the program is integrating the American Heart Association's Get With The Guidelines® – Heart Failure program, an evidence-based initiative shown to reduce hospital readmissions and improve long-term outcomes. This proactive, multidisciplinary approach is central to the Institute's identity as a referral center for complex cases.

SOLUTIONS FOR HEART RHYTHM DISORDERS

The Complex Arrhythmia Center at Memorial Hermann-TMC offers patients novel therapeutic options to improve quality of life and decrease risk of serious rhythm abnormalities. We are a destination center for ventricular tachycardia ablation, resynchronization therapy and implantable rhythm management devices. Our dedication to providing advanced treatment options for common and rare conditions is seen in our robust pulsed field ablation program, left atrial appendage occlusion procedures and lead extraction. Our collaborative team offers individualized treatment plans to patients with any rhythm abnormality.

Expertise in Vascular Surgery

Affiliated UTHealth Houston vascular and endovascular surgeons at Memorial Hermann-TMC specialize in treating patients with circulatory disorders using a range of medical therapies, minimally invasive procedures and reconstructive surgical techniques. Our vascular surgeons diagnose and treat vascular health conditions and develop long-term relationships with their patients, focusing on individualized care. When medication and noninvasive therapies are ineffective, our surgeons utilize modern vascular surgical procedures employing advanced technology and innovative approaches.

UTHealth Houston Heart & Vascular physicians affiliated with the Aortic Center of Excellence were the first in the world to perform robotic reconstructive aortic surgery, and are world leaders in the reconstruction of aortic aneurysms. Their groundbreaking techniques have resulted in critical advancements in the repair of these ballooning blood vessels, helping to prevent ruptures and significantly improving outcomes.

Memorial Hermann-TMC houses one of the world's largest aortic surgical practices, and as such is a major center for innovation and device development research. The clinical research team at UTHealth Houston Heart & Vascular has been a leader in the field of complex aortic surgery research, with over 200 peer-reviewed publications. Research studies and clinical trials are underway to continue exploring new treatment options for individuals with aortic aneurysms.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- Access to clinical trials and new technologies
- American College of Cardiology recognition for excellent cardiac surgery outcomes
- Experienced heart failure and heart transplant center
- Collaborative approach to complex heart disease

> "Our culture is built on providing world-class quality care to improve patients' lives. Everything we do has that goal in mind."

Anthony Estrera, MD FACS
Professor and Chair, Cardiothoracic and Vascular Surgery, McGovern Medical School at UTHealth Houston; Co-Chair, UTHealth Houston Heart & Vascular; Medical Director, Heart & Vascular Service Line, Memorial Hermann Health System

Where Complex Neurological Conditions Meet Innovation

Our program integrates unmatched expertise, pioneering technologies and seamless multidisciplinary collaboration to deliver excellent outcomes for patients with complex neurological conditions.

The Neuroscience Program at Memorial Hermann–Texas Medical Center (TMC) continues to stand out as a national leader in the diagnosis, treatment and long-term management of stroke, skull base tumors, epilepsy, movement disorders, complex spine conditions and myriad neurological conditions. As an academic quaternary referral center with NIH-funded research, internationally recognized faculty and multiple programs for complex conditions, we provide comprehensive care for patients across the continuum–from acute intervention to comprehensive follow-up care.

Our goal is to deliver evidence-based, compassionate care for patients with the most challenging neurological conditions.

AWARD WINNING CARE

National Association of Epilepsy Centers

US News & World Report
Ranked #48 nationally in Neurology & Neurosurgery

American Heart Association (AHA)
Get With The Guidelines® Stroke Gold Plus Target: Stroke℠ Honor Roll Elite Plus

North American Skull Base Society (NASBS)
Multidisciplinary Team of Distinction

First in Houston to receive The Joint Commission™ **Comprehensive Stroke Center** designation

Among a handful of select practices in Walmart's elite Centers of Excellence Program for spine surgery

A Referral Center for the Most Complex Neurological Diseases

Through its collaboration with UTHealth Houston Neurosciences, Memorial Hermann-TMC is one of the few programs nationwide to fully integrate neurology, neurosurgery and neurorehabilitation. This model has established a dedicated onsite stroke team, the region's leading epilepsy program and advanced innovations in multiple sclerosis, neurotrauma, skull base tumors and more. It also manages more neurotrauma cases than any other center in the Southwestern United States.

Pioneering Advancements in Stroke Care

Memorial Hermann-TMC continues to establish itself as a leader in stroke care as a high-volume Comprehensive Stroke Center. Comprehensive Stroke Centers are recognized industry leaders responsible for setting the national agenda in highly specialized stroke care.

Our scale and expertise enable rapid intervention and standardized inpatient management. The Center treats over 2,000 stroke patients annually, making it one of the busiest programs in the region.

Memorial Hermann-TMC's Mobile Stroke Unit (MSU)–an ambulance complete with CT scanner and thrombolytic therapy–recently earned MSU Certification by DNV Healthcare, an approved health care accreditation organization through the Centers for Medicare & Medicaid Services (CMS). Memorial Hermann is the first in the world to receive this accreditation. To earn the certification, an MSU must meet rigorous standards based on guidelines from the American Heart Association and American Stroke Association. These standards include immediate non-contrast CT imaging to differentiate ischemic from hemorrhagic stroke, timely administration of IV thrombolysis and the use of National Institutes of Health Stroke Scale (NIHSS) and other scales to assess severity.

UTHealth Houston neurologists and neurosurgeons provide coordinated care for patients with a variety

of conditions, including aneurysms, carotid occlusive disease, and intracranial vascular malformations. Open surgical treatments include microvascular clipping of aneurysms using the most advanced skull base approaches to minimize brain manipulation, extracranial-intracranial bypass procedures, carotid endarterectomy, and hemicraniectomy for severe strokes. Minimally invasive expertise includes the latest endovascular treatment options, including intracranial angioplasty, stenting, embolization, flow-diverting stents, and intrasaccular aneurysm occlusion devices, aimed at reducing procedure times and maximizing safety.

Patient-centered, Multidisciplinary Care for Brain Tumors

Our affiliated physicians specialize in the diagnosis and treatment of a wide range of primary and metastatic tumors, from the simple to the most complex.

Memorial Hermann-TMC's integrated care model brings together affiliated neuro-oncologists, neurosurgeons, neurologists and neuro-radiologists. Patients benefit from two dedicated neuro-oncologists focused exclusively on brain tumors. The team offers the full spectrum of contemporary therapies, including immunotherapy, placement of intracavitary chemotherapy, motor and language mapping, functional imaging for localizing sensitive brain regions, awake craniotomies under reduced anesthesia, laser ablation and minimally invasive procedures such as neuroendoscopy and stereotactic radiosurgery.

> "Through our Mobile Stroke Unit, 30% more patients were treated in the 'golden hour,' which translates to about a 30% improvement in outcomes."

Louise D. McCullough, MD
Professor and Chair, Department of Neurology,
McGovern Medical School at UTHealth Houston

In addition, Memorial Hermann-TMC, alongside our affiliated providers with UTHealth Houston Neurosciences, offers a strong, supportive patient and family education glioblastoma program. Along with individualized treatment plans, this program has extended the average lifespan of glioblastoma patients from the national average of 11 months to 18.2 months.

Our high-volume Gamma Knife brain surgery program treats more than 450 patients annually and supports both malignant and complex benign tumors, including atypical meningiomas that require coordinated oncologic management.

Innovation in Skull Base Surgery for Cancer and Cerebrovascular Disease

Pituitary adenomas and meningiomas are common, benign and notoriously challenging to treat due to their proximity to critical nerves, blood vessels and the brainstem. It's a challenge that affiliated physicians at Memorial Hermann-TMC have met by expanding the use of minimally invasive endonasal and orbital approaches. These minimally invasive techniques–performed through the nose, orbit or small cranial incisions–have reduced patient pain and scarring, shortened hospital stays and lowered readmission rates.

These and other novel skull base surgical techniques have also enhanced the management of complex cerebrovascular disease. Skull base approaches allow surgeons to reach deep-seated aneurysms, arteriovenous malformations and cavernous sinus vascular lesions that are otherwise difficult to expose using traditional craniotomies.

The North American Skull Base Society (NASBS) recently named the skull base surgery team at Memorial Hermann-TMC a Multidisciplinary Team of Distinction, a designation reserved for centers demonstrating cutting-edge work and multidisciplinary depth.

Additionally, the department joined the Registry for Adenomas of the Pituitary and Related Disorders (RAPID) national consortium, a registry dedicated to advancing pituitary tumor treatment, thereby positioning Memorial Hermann-TMC alongside other high-volume, high-expertise centers.

Education remains at the heart of Memorial Hermann-TMC's mission. This year, McGovern Medical School at UTHealth Houston introduced a new skull base tumor fellowship program, offering advanced training in minimally invasive techniques, multidisciplinary case management and combined skull base–cerebrovascular approaches.

Epilepsy Expertise

Memorial Hermann-TMC is also home to one of the largest and most comprehensive Epilepsy Monitoring Units (EMU) in the region. The EMU is central to providing thorough evaluation and care for patients with seizures. It is particularly vital for children with intractable or drug-resistant epilepsy, a condition marked by ongoing seizures that continue despite treatment with multiple antiseizure medications.

The Texas Comprehensive Epilepsy Program (TCEP) at Memorial Hermann-TMC, affiliated with UTHealth Houston Neurosciences, is accredited by the National Association of Epilepsy Centers as a Level 4 epilepsy center, underscoring our ability to manage refractory epilepsy with cutting-edge technology and multidisciplinary expertise. Patients referred for complex seizure disorders receive individualized treatment plans that integrate advanced diagnostics, surgical options and device-based therapies, including stereo EEG for simultaneous exploration of electrical activity while a patient is experiencing a seizure and MR-guided laser interstitial thermal therapy for treatment of focal epilepsies.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- High case volumes and consistently strong patient outcomes
- Highly integrative approach to multidisciplinary patient care
- Life-saving and life-extending treatment for brain tumors
- Long-standing expertise in cerebrovascular care
- Designated a Level 4 Epilepsy Center by NAEC
- Landmark national clinical trials offering patients access to innovative treatments
- Expertise in minimally invasive and complex spine procedures

We Offer Patients Robust Experience in Therapeutic Procedures, including:

- Adaptive Deep Brain Stimulation (aDBS) for movement disorders
- Dentato-rubro-thalamic tract (DRT) stimulation for tremor control
- Magnetoencephalography (MEG) to locate the source of seizures and minimize operative risk in patients with epilepsy
- Integrated skull base and cerebrovascular surgery, including Gamma Knife radiosurgery for pituitary tumors
- Advanced, minimally invasive interventions for stroke and aneurysm such as thrombectomy and aneurysm coiling
- Laser ablation, stereo EEG, and Responsive Neurostimulation for drug-resistant epilepsy

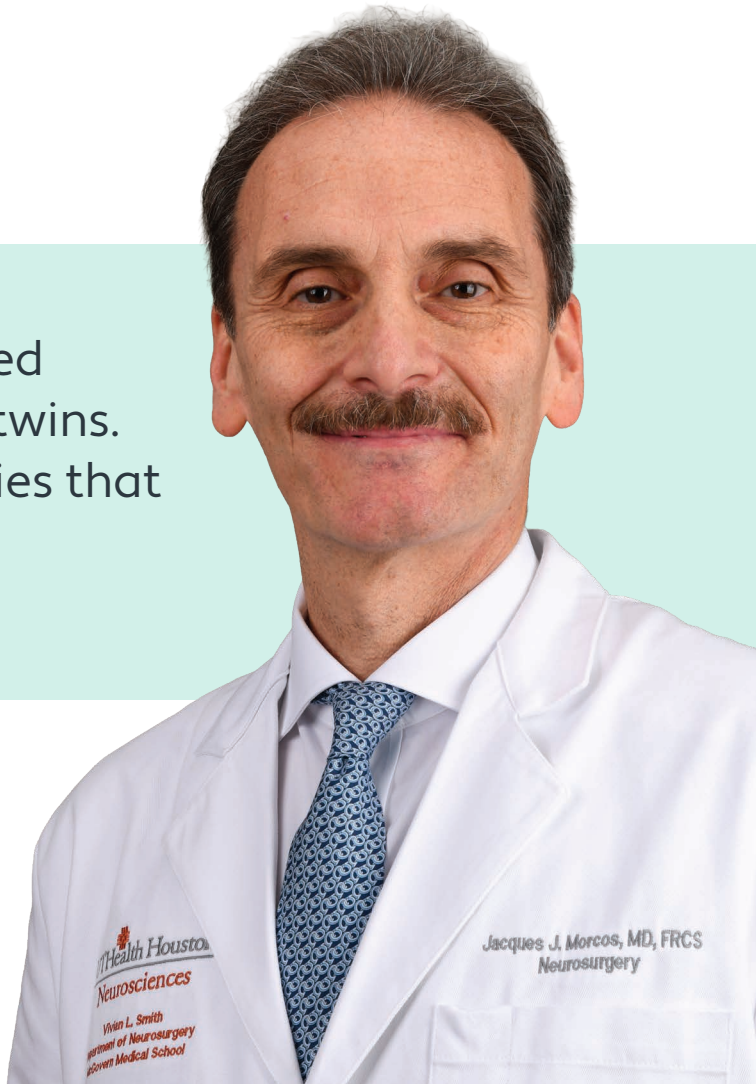
At the Forefront of Adaptive Deep Brain Stimulation

The NeuroRecovery Research Center (NRRC) at Memorial Hermann-TMC is one of the nation's leading centers for deep brain stimulation (DBS). DBS stimulation uses electrodes implanted in the brain to emit carefully placed and timed electrical impulses that address neurologic conditions.

When used for Parkinson's disease, DBS can improve the quality of life for many patients but carries the risk of dyskinesia if the pulses are too potent or stiffness if they aren't stimulating enough. To address these symptoms, our Neuromodulation Laboratory recently began using adaptive DBS (aDBS), a closed-loop system that monitors brain signals associated with Parkinson's symptoms in real time and automatically adjusts stimulation. Our movement disorders DBS program is among the largest programs in the nation and uses all FDA-approved available devices. In addition, our DBS program has dramatically improved the quality of life and function of hundreds of patients with disabling tremor states or dystonia.

> "Cerebrovascular and skull-based surgery are really inseparable twins. We've merged two subspecialties that were traditionally thought of as separate."

Jacques Morcos, MD
Professor and Chair, Vivian L. Smith Department of Neurosurgery, McGovern Medical School at UTHealth Houston; Neurosurgeon, Memorial Hermann-TMC



Section 4
Orthopedics

Where Complex Injury, Advanced Research and Elite Performance Converge

Bringing together unmatched trauma experience, research-backed care models and elite athletic partnerships, we're setting the standard for orthopedic excellence.

At Memorial Hermann–Texas Medical Center (TMC), the Memorial Hermann | Rockets Orthopedics program combines the expertise of a high-volume trauma center with a rapidly expanding portfolio of Advanced Interdisciplinary Programs (AIPs) and industry-leading sports partnerships. The result is a robust, high-acuity, research-driven Service Line that treats patients across the full spectrum of need–from polytrauma to professional sports–and delivers consistently exceptional outcomes.

For referring physicians, Memorial Hermann-TMC represents a quaternary destination where orthopedic innovation, multispecialty coordination and data-backed clinical decision-making are the driving forces behind patient care.

Orthopedic Trauma: High Volume, High Acuity, Unmatched Expertise

Memorial Hermann-TMC is home to the busiest orthopedic trauma center in the United States, with affiliated physicians performing more than 5,200 surgeries annually and caring for some of the most complex trauma cases in the country, with outcomes among the best in the nation. Of all trauma patients at Memorial Hermann, 75% to 80% present with orthopedic injuries, reflecting the depth of expertise built across decades of high-acuity care.

A hallmark of the program is its 100% fellowship-trained orthopedic trauma call coverage, 365 days a year. Houston boasts 19 orthopedic traumatologists, 13 of whom are affiliated with Memorial Hermann-TMC, concentrating a level of expertise rarely seen elsewhere.

This deep bench has helped establish the program as an international referral center for complex fractures, malunions, nonunions, pelvic and acetabular trauma and revision surgeries, including cases involving prior implants that require novel fixation strategies. Referrals include community orthopedists, national academic programs and professional athletes who seek the institution's specialized capabilities.

A Model Built for Complexity

Trauma care at Memorial Hermann-TMC is inherently multidisciplinary. Nearly every case requires coordination with specialties such as plastic surgery, urology, vascular and critical care, as well as specialized nursing and therapy teams. Shared protocols guide sequencing for high-complexity injuries, yet surgeons remain adept at adapting intraoperatively to address evolving needs.

Dedicated resources reinforce this approach, including:

- Seven orthopedic trauma ORs (five general orthopedic trauma, one hand, one spine)
- Highly experienced orthopedic trauma nurses and surgical techs
- Robust residency and fellowship programs through McGovern Medical School at UTHealth Houston that attract national and international trainees
- Significant involvement in device design and technique innovation

Driving National Standards Through Research

Memorial Hermann-TMC is an active contributor to the Major Extremity Trauma Research Consortium (METRC), a network of more than

80 trauma centers conducting real-world studies that shape national standards of care. Supported by over $150 million in federal and foundation funding, METRC has completed or launched more than 35 studies, with many changing clinical guidelines. Memorial Hermann-TMC is frequently the highest enroller in ongoing trials.

Across the program, research remains clinically grounded and designed to improve outcomes, inform protocols and advance trauma care.

Advanced Interdisciplinary Programs: Data-Driven Care

In addition to its trauma expertise, Memorial Hermann-TMC has built a growing suite of Advanced Interdisciplinary Programs (AIPs)–structured care models that integrate research and clinical care into a unified patient pathway. Current AIPs include:

- Knee
- Upper extremity
- Hip
- Spine
- Total joint

Patients are enrolled in structured research protocols that gather performance and recovery data at multiple points before, during and after their treatment. These data inform individualized care plans and have already produced notable changes in systemwide protocols to improve patient outcomes. For example, aggregated data from ACL patients led to adjustments in early ACL rehabilitation to address measurable dips in quadriceps strength that were seen at six months. Results are also shared with the wider medical community. In 2025 alone, the AIPs contributed 17 peer-reviewed publications and more than 100 national and international presentations.

Patients travel from across Texas and the United States for specialized AIP care, particularly high-level athletes in baseball, golf, gymnastics and other sports. Virtual follow-up options support long-distance recovery, enabling patients to return for in-person visits only when needed.

The Knee AIP illustrates the model's success: launched just over a year ago, it surpassed 1,000 patients enrolled in 13 months, significantly outperforming internal projections. The team has plans to expand AIP offerings through 2028, in alignment with Memorial Hermann's 10-year research roadmap.

Sports Partnerships: Caring for Athletes at Every Level

Memorial Hermann's leadership in sports medicine is strengthened by a wide portfolio of partnerships that span youth, collegiate, professional, elite and endurance athletes. These collaborations bring thousands of athletes into the health system each year, reflecting the depth and breadth of orthopedic and sports medicine expertise across Memorial Hermann-TMC.

Memorial Hermann also supports thousands of competitive athletes through long-standing team partnerships, including:

- **Houston Rockets**: A first-of-its-kind collaboration with the organization, with a rebrand of the entire Service Line as Memorial Hermann | Rockets Orthopedics, including the Sports Medicine Institute and Orthopedic Hospital. Memorial Hermann has served as the Rockets' official health care provider since 2005.
- **Texas A&M Athletics**: Memorial Hermann is the official health care provider for more than 600 student-athletes and supports the Junior Aggie Club.
- **University of Houston**: The health system serves as the lead supporter of the new Memorial Hermann Football Operations Center, opened in 2025.

Memorial Hermann has established a multi-year collaboration with IRONMAN®, in which Memorial Hermann serves as the title partner and medical provider for the Memorial Hermann IRONMAN® Texas, one of the premier endurance competitions in North America.

Through these partnerships, Memorial Hermann-TMC regularly cares for competitive and elite athletes while maintaining the same evidence-based, hands-on approach for every patient–whether a Division I football player, IRONMAN® triathlete or active adult with overuse injury.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- High-volume orthopedic trauma center serving high-acuity patients
- Fellowship-trained affiliated orthopedic trauma surgeons available 24/7
- Standardized, integrated research and clinical care pathways
- Strong outcomes supported by continuous clinical research and innovation
- Trusted provider for athletes at every level–from recreational to elite and endurance

> "Whether we're getting a grandparent back to the playground or an athlete back to the field, we offer advanced, personalized treatment pathways and a coordinated team of experts. Every patient is a superstar to us."

Walt Lowe, MD
Chair and Professor, Department of Orthopedic Surgery, McGovern Medical School at UTHealth Houston; Chief of Orthopedic Surgery, Memorial Hermann-TMC

Section 5
Gastroenterology & GI Surgery

Pioneering Minimally Invasive Treatments for Aggressive Gastrointestinal Disease

In partnership with UTHealth Houston, physicians at the Memorial Hermann Ertan Digestive Disease Center have made it easier for patients to receive lifesaving care.

Two exciting technologies are improving the way affiliated Memorial Hermann-TMC gastroenterologists and gastrointestinal surgeons manage disease. For patients with liver cancer, our recent work with histotripsy has revolutionized the way we address liver tumors. New developments in endoscopy are enabling affiliated physicians to provide minimally invasive endoscopic procedures to manage complex gastrointestinal disease. Both histotripsy and endoscopic advances showcase our team's dedication to patient safety and overall recovery when caring for gastrointestinal disease.

Better Liver Cancer Care Through Histotripsy

Histotripsy is a powerful tool to treat liver lesions, and Memorial Hermann was one of the first 50 hospitals in the nation to offer the procedure. By causing gasses within cancer cells to expand and retract with low-intensity ultrasound pulses, histotripsy breaks up liver tumors without incisions or risk of thermal injury, integrating seamlessly with other treatment options such as chemotherapy, resection or transplant.

Histotripsy fills the need for effective, targeted treatment of difficult-to-treat cancers, including masses next to delicate anatomy and cancer recurrence after resection. Unlike radiofrequency ablation, histotripsy will not damage collagen structures, so bile ducts and vessels are preserved and, in some cases, when the mass recedes from these areas after treatment, their function is restored or improved. Because of the intricate mapping software and its unique mechanism of action, histotripsy is effective when used after other treatment modalities, such as radiation, chemotherapy, radiofrequency ablation and resection, and can be repeated to treat new or recalcitrant lesions.

The adverse effect profile of histotripsy is minimal. Following the procedure, patients benefit from a minimal risk of bleeding, quicker return to activity, no scarring and decreased pain compared to other treatment options.

Memorial Hermann physicians are actively looking for patients who would benefit from this procedure and investigating its use in nonresectable metastatic colon cancer. Referrals can be made online at **memorialhermann.org/histotripsy** or through a dedicated phone number: **713.70HISTO (713.704.4786)**.

Expanding the Therapeutic Capabilities of Endoscopy

The Center for Interventional Gastroenterology at UTHealth Houston, a collaboration between UTHealth Houston and Memorial Hermann-affiliated physicians, is leveraging advancements in endoscopic technologies to treat complex gastrointestinal disease. Memorial Hermann-TMC serves as an academic, research and educational homebase, enabling implementation of innovative procedures and multidisciplinary patient care pathways. Innovations from this program are now available across Greater Houston at 16 Houston-area institutions through our extensive physician training programs. Affiliated physicians at the Center have led many clinical trials in therapeutic endoscopy and are currently leading landmark clinical trials in treatment of pancreatic cancer.

The Center's gastroenterologists are successfully treating precancerous lesions, including both Barrett's esophagus and large colon polyps, endoscopically. Early gastrointestinal cancerous lesions can also be removed with these landmark endoscopic procedures. Endoscopic ablation and advanced tissue resection procedures allow for treatment of precancerous and cancerous gastrointestinal tract lesions without a laparoscopic procedure and with minimal disruption to the intestinal wall. Patients benefit from a much lower risk of intestinal leak and quicker recovery time while still getting the diagnostic and therapeutic care they need.

Gastroenterologists at the Center for Interventional Gastroenterology are currently conducting multiple landmark clinical trials. In collaboration with minimally invasive surgeons, physicians are currently leading an endoscopic fundoplication clinical trial to treat gastroesophageal reflux disease. The team is also evaluating endoscopic ultrasound guided radiofrequency ablation (EUS-RFA) to treat pancreatic cancer. This minimally invasive procedure, when performed in conjunction with standard of care chemotherapy, not only shrinks tumors, but may also activate the immune system against the cancer. Research suggests that the immune system acts against not only the primary cancer, but also metastases through its interaction with dead tumor particles that result from endoscopic ablation of carcinogenic cells. Physicians at the Center have pioneered this procedure, with higher volumes than any other institution in the world, and now teach these techniques internationally.

Islet Cell Transplant for Chronic Pancreatitis

Chronic pancreatitis can be a debilitating, life-changing disease without effective, lasting treatment options. However, new therapy with autologous islet cell transplantation has changed the landscape for patients with chronic pancreatitis. The treatment works

by removing the damaged pancreas while resecting and preserving islet cell tissue to be reimplanted on the liver. In this way, the source of the patient's pain is removed, but the transplanted islet cells produce adequate insulin to spare patients a life of type 1 diabetes. Our physicians are currently vetting and preparing patients to bring this landmark procedure to Memorial Hermann-TMC.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC

- Experience treating high-acuity patients with innovative approaches
- Access to histotripsy therapy for liver cancer
- Endoscopic treatment of large polyps without colon resection
- Leading-edge therapies such as EUS-RFA for treatment of pancreatic cancer
- World-renowned research and clinical trials

> "The key to providing high quality care to the complex patients we see at the Ertan Digestive Disease Center is our combination of multidisciplinary collaboration and cutting-edge technology."

Nirav Thosani, MD, MHA
Professor, Department of Internal Medicine, McGovern Medical School at UTHealth Houston, Director; Center for Interventional Gastroenterology at UTHealth Houston; Gastroenterologist, Memorial Hermann-TMC

Section 6
Pulmonary &
Lung Surgery

Where Complex Lung Disease Meets Comprehensive Expertise

Our program integrates subspecialty expertise, leading-edge interventions and seamless transplant access for patients with the most challenging lung conditions.

The Pulmonology Program at Memorial Hermann-TMC continues to distinguish itself as a regional and national leader in the diagnosis, treatment and long-term management of complex pulmonary disease. As an academic tertiary referral center with multiple Centers of Excellence and an experienced lung transplant program, we provide comprehensive care for all patients–from initial evaluation through advanced interventions and, when needed, transplant and lifelong follow-up.

Our goal is simple: deliver evidence-based, compassionate and coordinated care for patients with the most challenging pulmonary conditions, while partnering closely with referring physicians to provide patients with the right treatment at the right time.

A Referral Center for the Most Complex Pulmonary Disease

In collaboration with UTHealth Houston physicians, the Pulmonary Program at Memorial Hermann-TMC is set apart by the acuity of the patients it serves. The program routinely cares for individuals with end-stage lung disease caused by a variety of conditions, including pulmonary fibrosis, advanced COPD, complex pulmonary hypertension (PH) and chronic thromboembolic disease. Many arrive after prolonged journeys through fragmented care systems. Our role is to bring clarity, coordination and expertise.

Our World Association for Sarcoidosis and Other Granulomatous Disorders (WASOG)-recognized Sarcoidosis Clinic and LAM Foundation-approved Clinic for LAM & Rare Diseases reflect this commitment. Sarcoidosis, a rare inflammatory disease capable of affecting any organ system, is frequently misdiagnosed or overlooked. As a Center of Excellence, we provide patients with expedited access to coordinated affiliated multispecialty evaluation, monthly multidisciplinary conferences and timely communication with referring providers. Our goal is to diagnose systemic inflammation early, intervene before irreversible damage occurs and help patients find a medical home.

We see similar needs in our LAM and Rare Lung Disease Clinic, which draws referrals from across Texas and beyond. We collaborate rigorously with community pulmonologists to provide patients with evidence-based care and access to investigational therapies through research partnerships.

Our accreditation as a Care Center Network for pulmonary fibrosis reflects our commitment to providing evidence-based, multidisciplinary care and a network of support and resources to pulmonary fibrosis patients in our community.

Advanced Therapies and Lung Transplant

Memorial Hermann–TMC is one of the most comprehensive destinations for advanced pulmonary care in the region. Patients with progressive or end-stage lung disease receive expert evaluation and management for advanced disease, including lung transplant. This continuity is especially important for those with rapidly evolving disease trajectories, where time-sensitive decisions can change outcomes.

With a multidisciplinary team of transplant surgeons, pulmonologists, cardiologists, coordinators, anesthesiologists, social workers and dietitians, we provide a cohesive approach from assessment to long-term follow-up.

Excellence in Pulmonary Hypertension and Pulmonary Embolism

Our expertise in PH, including chronic thromboembolic pulmonary hypertension (CTEPH), continues to be a defining strength of the Memorial Hermann-TMC Pulmonology Program. We offer comprehensive diagnostic evaluation, genetic testing, individualized medication regimens and pulmonary rehabilitation, all grounded in national guideline–driven care.

Collaboration is central to our work. In partnership with the hospital's cardiovascular and surgical teams, our affiliated physicians provide advanced therapies, including mechanical thrombectomy and lung transplantation, for carefully selected PH patients. Our approach is built on the philosophy that improving function and quality of life must be prioritized alongside slowing disease progression.

The impact of this approach is particularly evident in our care for pulmonary embolism (PE), which remains fatal in 25% of untreated cases. Our affiliated multidisciplinary PE team's use of mechanical thrombectomy–a minimally invasive catheter-based procedure that removes clots, often without an ICU stay or thrombolytics–has resulted in immediate symptom relief and lifesaving care for many patients, including those who previously had few viable treatment options. Outcomes in this population are particularly strong, despite the advanced disease burden for many patients.

Care doesn't stop at hospital discharge. Memorial Hermann-TMC is deeply committed to PE and PH follow-up and prevention of long-term complications, including:

- Structured PE follow-up clinics
- Early identification of post-PE syndrome
- Systematic screening for CTEPH
- Seamless transition into PH care when indicated

Specialized PH Surgery at our CTEPH Program

Even a small PE noted on a ventilation/perfusion study can lead to significant PH without the necessary surgical intervention. The multidisciplinary CTEPH team at Memorial Hermann-TMC brings together the unique expertise and perspectives of affiliated cardiac surgeons, pulmonary critical care physicians, cardiac anesthesiologists and perfusionists to offer effective therapy to these patients.

PH caused by CTEPH is the only type of PH that has a potential for cure. Removal of these chronic clots, however, requires either endarterectomy or balloon pulmonary angioplasty to essential blood vessels that exist amidst complex organ structures. Through concerted training efforts and cross-specialty collaboration, our dedicated team of affiliated physicians, surgeons and medical staff has successfully integrated these procedures into the pulmonary program and improved the quality of life for patients who would otherwise struggle with lifelong PH.

A Growing Interventional Pulmonology Program

This year brought notable growth in our interventional pulmonology capabilities, marking continued expansion of this program. Using state-of-the-art navigation systems, advanced bronchoscopy, endobronchial ultrasound and airway therapies, we diagnose and treat airway and lung disease with a minimally invasive approach that aims to reduce patient risk and improve recovery.

Procedures routinely performed at Memorial Hermann-TMC include:

- Rigid and flexible bronchoscopy
- Electromagnetic navigation bronchoscopy
- Endobronchial ultrasound (linear and radial)
- Stent placement
- Endobronchial valve placement and Zephyr valve therapy for severe emphysema
- Laser, cryotherapy and APC tumor debulking
- Bronchial thermoplasty for severe asthma
- Percutaneous tracheostomy
- Pleural interventions, including chest tube and PleurX catheter placement

We also expanded our capabilities in interventional bronchoscopy for diagnosis, staging and airway management–an area that continues to see strong referral growth.

Creating a Bright Future for Lung and Circulatory Care

As an academic center, and through our collaboration with McGovern Medical School at UTHealth Houston, we participate in major national and international trials in pulmonary fibrosis, PH and rare lung diseases. We are consistently among the highest enrollers in multiple multicenter studies, reflecting a patient population eager for options and a team dedicated to advancing care. Our research infrastructure provides referring physicians with access to investigational therapies that would otherwise be unavailable to their patients.

For example, our affiliated pulmonology and critical care

physicians recently participated as investigators in the multicenter SAFE MRI ECMO study, helping to validate an emerging neuromonitoring tool that supports earlier detection of neurologic complications in our population on extracorporeal membrane oxygenation (ECMO).

Published in *Circulation*, the study evaluated the safety and clinical utility of an ultra–low-field portable brain MRI system used at the bedside to detect acute brain injury (ABI) in patients supported on ECMO. Findings showed that bedside portable MRI identified ABI in 44% of patients–most commonly ischemic stroke–with greater sensitivity for ischemic injury than head CT when both modalities were obtained within 24 hours.

Mobile ECMO: A First in Care

A defining advancement in our care for patients with acute, life-threatening cardiopulmonary failure is the development of our Mobile ECMO program, a joint initiative between the Emergency Department and Pulmonology that represents a first-of-its-kind model nationally. Designed to address the narrow window in which extracorporeal support can meaningfully alter outcomes, the program enables ECMO cannulation to occur earlier than has traditionally been possible–in the field, before arrival at Memorial Hermann-TMC. This approach is especially critical for patients in cardiac or respiratory arrest, where delays beyond 60 minutes are historically associated with extremely poor survival.

By mobilizing a highly specialized, multidisciplinary ECMO team to initiate support sooner, in coordination with first responders, our affiliated providers are fundamentally changing the trajectory for patients who previously had few or no viable options. This unique model directly overcomes the limitations of conventional transport for profoundly unstable patients, allowing earlier stabilization and preservation of end-organ and neurologic function. Integrated within our broader infrastructure, Mobile ECMO extends the reach of Memorial Hermann-TMC's expertise across the region, reinforcing our role as a destination center for the most complex pulmonary and cardiopulmonary failure cases, demonstrating how innovation at the intersection of emergency medicine and pulmonology critical care can redefine what is possible when minutes matter most.

Strong Partnerships with Community Hospitals

Our relationships with community hospitals remain a cornerstone of our referral strategy. Patients can be evaluated for second opinions, subspecialty care, complex procedures or transplant at Memorial Hermann–TMC, then transition back to their local providers for ongoing management. This model gives community hospitals access to academic-level clinical trials and specialty resources while keeping patient care close to home whenever possible.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- Multiple Centers of Excellence including sarcoidosis, LAM and pulmonary fibrosis
- Patient access to national pulmonary trials
- High-performing lung transplant program
- Multidisciplinary thrombectomy program

> "We see the entire depth and breadth of complexity of patients with advanced lung disease, providing comprehensive treatment from medication therapy to transplant."

Bela Patel, MD
Professor, Department of Internal Medicine, McGovern Medical School at UTHealth Houston, Regional Chief Medical Officer and Executive Medical Director of Pulmonary and Critical Care for Memorial Hermann-TMC

Prioritizing Older Adults in Every Aspect of Care

Our health care providers address the unique needs and concerns of older adults, regardless of their reason for admission, by using the age-friendly framework developed through the Institute for Healthcare Improvement and the John A. Hartford Foundation.

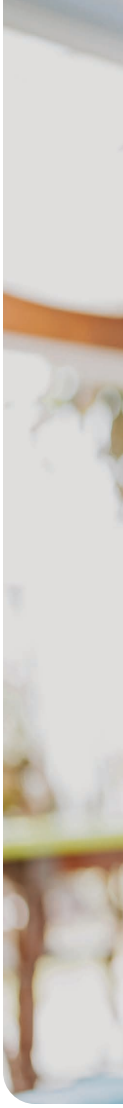
To best care for older adults admitted to Memorial Hermann-TMC, we allow for the 4Ms (medication, mentation, mobility and what matters most) to be incorporated in the treatment plan, whether at our Acute Care for Elders Unit, our Silver Trauma Unit for geriatric trauma or any other hospital floor. Our Age Friendly Task Force will soon make this information easier to access for consulting specialists after admission. Keeping the 4Ms at the forefront of care for every team member ensures that medical decision making occurs within the context of a patient's goals and medical history.

The Age Friendly Task Force

Our Age Friendly Task Force brings together quality specialists, administrators, nursing leaders, advanced practice providers, physical and occupational therapists, hospitalists, surgeons and geriatricians to create meaningful improvements for older adults hospitalized at Memorial Hermann-TMC.

Improving sleep hygiene has been a feature initiative for the Task Force. Their Sleep Friendly Guidelines were updated in 2025 and have created a standardized, actionable process to improve the sleep of older adults throughout the hospital. Following best sleep practices, the guidelines start with daytime recommendations to improve wakefulness, such as social interaction, natural lighting and physical activity where appropriate. At night, patients are provided a sleep hygiene kit, complete with ear plugs and aroma therapy. Overhead announcements, blood draws and medication administration are all limited as much as possible to promote rest.

Now that the Sleep Friendly Guidelines are part of routine elder care, the Task Force will begin collecting data to see how patient recovery is affected. They are also looking into the use of artificial intelligence to review patient data in a safe, ethical manner and flag patients at increased risk of delirium so that prevention measures are deployed appropriately



Acute Care for Elders Unit: Safety & Compassion Together

Memorial Hermann-TMC is proud to offer hospitalized older adults a space that is tailored to their unique needs. Our Acute Care for Elders (ACE) Unit is staffed by nurses, social workers and case managers with significant geriatric experience who receive ongoing updates to their elder care training.

Preventing hospital-acquired delirium is a focus for this unit. Acute delirium intervention protocols provide a structured and effective way for the medical team to assess any immediate, reversible causes of delirium and intervene with compassion and effectiveness.

We apply the latest research and recommendations that support longer, healthier lives by preventing delirium and thereby helping patients stay engaged in decisions about their care understand their treatment, and maintain independence.

Recognizing delirium as a medical emergency that should be prevented and quickly addressed when present has made a significant difference in the recovery of our older adults. Interventions such as hearing amplifiers, brain health kits and sleep hygiene recommendations are now spreading beyond the ACE Unit to benefit older adults throughout our hospital.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- Dedicated Acute Care for Elders and Silver Trauma Units
- Comprehensive delirium prevention bundle with special emphasis on the importance of sleep
- Active Age Friendly Task Force keeping older adult concerns top of mind
- Specialized trauma care with dedicated geriatric resuscitation and management pathways built by a multidisciplinary group of experts
- Seamless integration of the 4Ms into every aspect of care

Unique Needs of Older Adults Following Injury: The Silver Trauma Unit

Older adults make up 31% of all trauma patients, but their response to injury and road to recovery is dramatically different than for younger patients. Memorial Hermann-TMC geriatricians, now aided by the Age Friendly Task Force, work with emergency medicine providers, trauma surgeons and hospitalists to increase awareness of the needs of elderly patients and foster a successful recovery on the Silver Trauma Unit.

Approaching trauma surgery in a person with diminished reserve requires attention to detail and consideration of a wide range of information. For example, signs of shock in older adults are subtle; shock may be present with normal vital signs, so attention to other details of the admission is critical. Likewise, blood transfusions may be required at a lower threshold in a geriatric population to preserve kidney function and optimal perfusion.

Providing safe and adequate mobility for older patients following a fracture can be a particular challenge. Data repeatedly show that early and frequent mobility in older adults decreases delirium and muscle wasting. On the ACE Unit, in the Silver Trauma Unit and throughout the hospital, close collaboration with at-home caregivers in conjunction with staffing adjustments are helping to strike this balance and keep older adults as active as they are safely able following a traumatic injury.

> “It takes everyone coming together, looking at the data and establishing new priorities to care for older adults. That’s how we make a difference.”

Cristina Murdock, MD
Associate Professor, Interim Division Director of the Joan and Stanford Alexander Division of Geriatric and Palliative Medicine, McGovern Medical School at UTHealth Houston; Geriatrician, Memorial Hermann-TMC

Section 8
Surgical Innovation & Robotics Institute

Training for the Future of Advanced Surgical Technology

We offer surgeons, nurses and support staff from across the nation and the world hands-on experience with robotic surgery.

For over twenty years, the Surgical Innovation and Robotics Institute (SIRI), in partnership with UTHealth Houston, has trained the next generation of surgeons in robotic procedures. Experiential and didactic learning combine to prepare medical professionals to harness the precision power of robotic surgery, improving outcomes and increasing patient satisfaction.

The Institute currently offers five active robotic lab spaces across 4,071 sq. ft. to meet a variety of needs, from teaching scrub techs to developing new medical devices. Our labs are equipped to validate new products and techniques with technical experts and experienced clinicians, many of whom are faculty members at McGovern Medical School at UTHealth Houston.

Robotic surgery offers the benefits of minimally invasive surgery, including faster recovery and decreased risk of complications, while allowing the surgeon greater dexterity, exemplary precision and high-definition 3D visualization during the operation.

Increasingly, operations traditionally performed with large, open incisions are now accomplished as minimally invasive robotic surgeries, and SIRI offers the space and expertise to develop new approaches and novel operations.

SIRI training labs offer:

- Cadaver
- Wet tissue
- Saw bone
- Dry
- Tailored labs to meet customer needs

Early access to robotic surgery technology has allowed our affiliated surgeons to integrate advanced techniques into several practices, including bariatric surgery, cardiology, general surgery, gynecology, oncology and urology. Affiliated surgeons at Memorial Hermann-TMC have performed over 4,500 robotic surgeries.

Placenta Accreta Program: Innovation in Maternal-Fetal Care

A national leader in hemorrhage control and fertility-sparing approaches to placenta accreta, advancing positive outcomes for high-risk pregnancies.

The affiliated multidisciplinary team at Memorial Hermann-TMC provides the full spectrum of care for placenta accreta spectrum (PAS) disorder, including prenatal testing, diagnostic imaging and highly specialized maternal-fetal care.

Our program continues to distinguish itself as one of the most advanced in the United States, integrating maternal-fetal medicine, imaging, trauma surgery and gynecologic oncology to deliver coordinated care. With the unique ability to coordinate multiple specialists to see a patient on the same day, the program draws referrals from across Texas and beyond.

We are proud to offer placenta in situ management, also known as leaving the placenta in situ. This conservative approach avoids hysterectomy when feasible, protecting future fertility, a strategy in line with our efforts to preserve fertility whenever possible while ensuring maternal safety.

A Leader in PAS Hemorrhage Control

PAS is a complex condition in which the placenta does not entirely detach after birth and cannot be removed without causing significant risks to the mother. Hemorrhage associated with PAS is widely recognized as a leading cause of maternal morbidity and mortality. Memorial Hermann-TMC delivers highly specialized care for mothers experiencing PAS with the implementation of trauma-derived techniques for obstetric emergencies. We are one of only a few hospitals to offer Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) to rapidly control catastrophic bleeding, providing a minimally invasive alternative to thoracotomy. REBOA works through insertion of a balloon catheter via the femoral artery into the aorta and catheter inflation to temporarily block blood flow below the balloon, which rapidly reduces bleeding while maintaining circulation to vital organs.

Whole blood transfusion is increasingly recognized as superior to single-component therapy when it comes to treating PAS-related hemorrhage because it delivers red cells, plasma and platelets in balanced ratios immediately, which reduces transfusion volume and improves efficiency in critical moments. Memorial Hermann-TMC is among the few obstetric hospitals nationwide to implement whole blood transfusion for massive hemorrhage. This protocol consistently accelerates stabilization and improves outcomes.

Leveraging Research and New Technology for Postpartum Hemorrhage

In 2025, Memorial Hermann-TMC, in conjunction with UTHealth Houston, participated in multiple clinical trials to test and refine medical devices reinforcing our role as a hub for research and clinical innovation.

The Bakri intrauterine balloon is an effective tool for refractory postpartum hemorrhage because it provides rapid, targeted tamponade pressure inside the uterus, directly compressing bleeding vessels while allowing continuous drainage and monitoring. This minimally invasive approach quickly stabilizes patients, reduces the need for hysterectomy and preserves fertility.

The KOKO system represents a new generation of uterine tamponade devices, shifting from pressure-based (balloon) to vacuum-based hemostasis. Early studies and ongoing trials suggest it could become a major tool in managing life-threatening postpartum hemorrhage.

In 2025, Memorial Hermann-TMC-affiliated physicians co-authored multiple studies on the conservative management and fertility-sparing strategies, reinforcing our leadership in the uterine preservation space.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- Largest program in the nation for fertility-sparing placenta accreta care
- Pioneering use of REBOA in obstetrics
- Whole blood transfusion protocols for massive hemorrhage
- Robust clinical and device trials

> “At Memorial Hermann, we’ve adapted trauma innovations like REBOA and whole blood transfusion to obstetrics, transforming how we control hemorrhage and preserve fertility in placenta accreta cases.”

Sean Blackwell, MD
Professor and Chair, Department of Obstetrics, Gynecology and Reproductive Sciences, McGovern Medical School at UTHealth Houston; Medical Director, Placenta Accreta Program, Memorial Hermann-TMC

Rheumatology

Pioneering Care for Scleroderma

Memorial Hermann-TMC, with its academic partner UTHealth Houston integrates subspecialty expertise, pioneering microsurgical interventions and landmark clinical trials to redefine scleroderma care.

Memorial Hermann-TMC is a national leader in the diagnosis, treatment and long-term management of scleroderma. As the largest specialized program in Texas, our affiliated physicians combine advanced clinical care with internationally recognized research, ensuring patients benefit from current best practices and breakthrough innovation.

We routinely care for individuals with scleroderma sequelae, including systemic scleroderma-related interstitial lung disease (ILD), pulmonary arterial hypertension (PAH) and severe vascular complications. Our coordinated teams and access to research enable us to deliver evidence-based, coordinated care for patients with scleroderma, while partnering closely with referring physicians to allow patients to receive the most comprehensive care possible.

Innovative Therapies and Procedures

Scleroderma is a rare connective tissue autoimmune disease that can affect multiple organs and systems. About 100,000 people in the United States suffer from scleroderma. In the more serious form of the disease, scar tissue involving the skin and internal organs can lead to life-threatening complications.

The fingers, hands and feet are usually the first parts of the body to be affected by scleroderma.

Memorial Hermann-TMC, with its academic partner UTHealth Houston, is one of only a few centers worldwide that offers revascularization for refractory ischemic digital tip ulcers caused by scleroderma. This complex microsurgical technique restores blood flow

> “We translate molecular discoveries into therapies with the goal of improving the lives of people with scleroderma.”

Shervin Assassi, MD, MS
Professor and Director, Division of Rheumatology, Department of Internal Medicine, McGovern Medical School at UTHealth Houston

to the hand and fingers, preventing amputation and preserving the patient's quality of life.

Scleroderma can also impact both the heart and lungs, leading to pulmonary fibrosis, pulmonary hypertension, irregular heart rhythms and even heart failure. Our rheumatologists collaborate closely with pulmonary and cardiology teams, including the Lung Transplant Team and Heart Transplant Team, to provide advanced care for ILD and PAH, two of the most serious complications of scleroderma. Taking a multidisciplinary approach to scleroderma care allows for earlier interventions and better outcomes for patients.

Patients with gastrointestinal involvement benefit from the specialized evaluation and treatment they receive at Memorial Hermann-TMC. Scleroderma can cause dysphagia, severe heartburn, regurgitation and weight loss. Diagnosis may involve upper endoscopy, high-resolution manometry and videoesophagram. Treatment includes immunomodulators, proton pump inhibitors and prokinetic agents to improve motility.

Procedures routinely performed at Memorial Hermann-TMC include:

- Pulmonary function tests to monitor lung capacity and detect interstitial lung disease
- Endoscopy (EGD) and high-resolution esophageal manometry
- Capillaroscopy and skin biopsies to assess vascular changes and confirm localized disease
- Videoesophagram to examine the anatomy of the pharynx, esophagus and stomach

Landmark Clinical Trials and Research Leadership

In 2025, physicians at Memorial Hermann-TMC and UTHealth Houston co-authored a *New England Journal of Medicine* (NEJM) paper on the Phase III FIBRONEER-ILD trial of nerandomilast, the first therapy to demonstrate survival benefit in progressive pulmonary fibrosis, including scleroderma-related ILD.

Memorial Hermann-TMC, in coordination with McGovern Medical School at UTHealth Houston, serves as an RNA, DNA and serum collection hospital for the CONQUER Registry, a national scleroderma patient registry and biosample repository aimed at improving care and developing more effective, personalized therapies for scleroderma patients.

National Recognition for Excellence in Scleroderma Care

Shervin Assassi, MD, MS, Professor and Director of the Division of Rheumatology at McGovern Medical School and Memorial Hermann-TMC, was named 2025 Doctor of the Year by the National Scleroderma Foundation for his outstanding dedication to improving the lives of people living with scleroderma. With over 200 peer-reviewed publications and leadership roles in international consortia, his recognition underscores Memorial Hermann-TMC's role as a hub of excellence in scleroderma care.

WHY REFERRING PHYSICIANS CHOOSE MEMORIAL HERMANN-TMC:

- Leading clinical and research center for scleroderma
- Access to survival-improving clinical trials
- Advanced microsurgical revascularization procedures
- Expertise in pulmonary, gastrointestinal and cardiac manifestations of scleroderma


Life Flight
MEMORIAL HERMANN
N414MH
TX101025

Memorial Hermann Life Flight®

is a nonprofit critical care air ambulance service. This community resource serves Greater Houston and Southeast Texas, providing prehospital care for patients with high-acuity illnesses and injuries.

Memorial Hermann's uniquely integrated network of Life Flight, Red Duke Trauma Institute at Memorial Hermann-Texas Medical Center, Children's Memorial Hermann Hospital and TIRR Memorial Hermann provide the full continuum of trauma care.

Life Flight is:

One of the busiest air ambulance services in the country and the first in Texas.

Prehospital care staffed with a highly trained team including pilot, flight nurse and paramedic providing trauma, diagnostic and interventional care in flight to patients of all ages, from newborn babies to seniors.

The first to provide lifesaving blood products to patients in transport.

Sought after by other programs around the nation for pioneering protocols and safety standards, such as highly infectious patients with ECMO transports.

BY THE NUMBERS

2-3 min.
Average time between landing and surgery

4,200+
Missions flown annually

150-mi. radius
Covered by Memorial Hermann Life Flight®

Hospital Leadership

MICHAEL ROUSSOS

Senior Vice President, President of Academic Hospitals & Chief Executive Officer, Memorial Hermann-Texas Medical Center Campus

MICHELLE MCNUTT, MD

Professor, General Surgery, McGovern Medical School at UTHealth Houston

Chief Medical Officer, Memorial Hermann-TMC

JASON GLOVER

Chief Executive Officer, Memorial Hermann-TMC Adult Services

BELA PATEL, MD

Vice Dean, Healthcare Quality, McGovern Medical School at UTHealth Houston

Regional Chief Medical Officer, Memorial Hermann-TMC

NICOLE HARRISON

Interim Vice President & Chief Nursing Officer for Memorial Hermann-TMC

LANCE FERGUSON

Vice President of Operations, Memorial Hermann-Texas Medical Center

As we look ahead, our focus remains on driving the next era of high-acuity care in Houston and beyond. We will continue investing in our people, our infrastructure and our academic partnership with UTHealth Houston to support innovation, expand clinical capabilities and offer high-quality, compassionate care to the patients we serve.

For more information please visit
Memorialhermann.org/TMC

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