

A woman with long dark hair, wearing a dark blue long-sleeved shirt, is seated in a black and red motorized wheelchair. She is holding a young boy with short brown hair, wearing a blue t-shirt and dark blue jeans, on her lap. They are both looking down at an open book she is holding. The setting is a living room with a white wall, a large abstract painting in shades of blue and green, a black table with a potted plant and a white ceramic container, and a black lamp. The floor is covered with a white shag rug.

Rewriting Stories.

TRANSFORMING LIVES.

TIRR
MEMORIAL
HERMANN
Rehabilitation & Research

WE SET THE BAR.

Now we're raising it.

TIRR Memorial Hermann changes lives.

Affiliated physicians, therapists, nurses and other healthcare professionals work daily to improve outcomes, offer hope and maximize independence for people whose lives have been affected by disabling illness or injury. We're not merely adhering to what's expected from a leading rehabilitation hospital, our aim is to *shatter* that perception by raising the bar that we set on rehabilitation, research and education.

Founded in 1959, TIRR Memorial Hermann is a 134-bed nonprofit rehabilitation hospital located in the Texas Medical Center in Houston. Both inpatients and outpatients benefit from the power of an integrated health system: the capability to provide all levels of care across the lifespan *seamlessly* with a consistently high level of quality.

Recognized among the leading rehabilitation hospitals in the country,

TIRR Memorial Hermann serves as a model for interdisciplinary rehabilitation services, patient care, research and education. *U.S. News & World Report* has named TIRR to its list of "America's Best Hospitals every year since 1990."

TIRR Memorial Hermann has been named among the National Institute on Disability and Rehabilitation Research Traumatic Brain Injury Model Systems since 1987 as well as designated as a Spinal Cord Injury Model System. And through the Independent Living Research Utilization program, TIRR Memorial Hermann provides the vital support system necessary to achieve an advanced level of independence after discharge.

Recognized as one of the best in the nation since 1990.

In January 2011, after being shot in the head at pointblank range outside a grocery store in Tucson, US Congresswoman Gabrielle “Gabby” Giffords was transferred from the University of Arizona Medical Center to Memorial Hermann-Texas Medical Center’s Neuroscience Intensive Care Unit. Four days later, she was transferred to TIRR Memorial Hermann. During her inpatient stay, a multidisciplinary traumatic brain injury team worked closely with Gabby to develop a combination of therapies for a return to function.

After her discharge from TIRR in July 2011, she began a program of intensive physical therapy, occupational therapy and speech therapy at TIRR Memorial Hermann Outpatient Rehabilitation. Gabby participated daily in active therapy sessions including the return to work track in The Challenge Program.

“We worked together like an orchestra, designing therapies that treat the whole person and expedite recovery,” said Chief Medical Officer Gerard Francisco, M.D., who was in charge of Gabby’s care during her inpatient stay. Through the help of continuous outpatient rehabilitation she now tours the country providing keynote speeches with her husband, Mark Kelly, retired NASA astronaut, engineer and U.S. Navy Captain. In 2016, she spoke at the Democratic National Convention.

“It was a tragic event with a huge impact on us as a family. But you keep working because you don’t want that to be the end result. The injury Gabby suffered kills 95 percent of the people who sustain it. The 5 percent who survive typically don’t recover very well, but she’s done remarkably well. Her continuous improvement motivates her to go further and do more,” said Kelly.

TIRR Memorial Hermann provides rehabilitation for all levels of brain injury, including patients suffering from traumatic brain injury (TBI), nontraumatic brain injury and brain injuries combined with spinal cord injury or multiple fractures and amputations. We are committed to seeing the potential in every person and often give opportunities to those who have no other options. Goal setting and treatment planning are creative and aggressive. Recovery continues long after they return home. Programs at our **Outpatient Medical Clinic** and **Outpatient Rehabilitation** allow patients and family to transition to the home while continuing intense therapy services and medical monitoring. Brain injury support groups, counseling, education and individualized training also prepare families and caregivers for the patient’s discharge.



*"Her continuous improvement
motivates her to go further
and do more."*

Mark Kelly, Gabby's husband

SO MUCH sets us apart

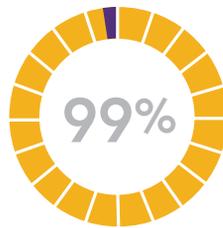
DIAGNOSES/TREATMENTS

- Spinal Cord Injury
 - Brain Injury
 - Stroke
 - Limb Loss/Amputation
 - Cancer
 - Disorder of Consciousness
 - Balance/Vestibular
 - Community Reentry
- Declining Cognition
 - Deconditioning
 - Swallowing and Voice Therapy
 - Low Vision
 - Neurodegenerative Diseases including:
Multiple Sclerosis (MS),
Parkinson's disease and other
movement disorders

TIRR MEMORIAL HERMANN BY THE NUMBERS



of staff have advanced certifications



of patients who completed the Challenge Program met their work or volunteer goals



of our patients travel internationally to access our award-winning care



outpatient therapy visits annually



devoted to research funding



Number of people working in research at TIRR



*"When I started playing,
I was right back to my
old self again."*



A Virtuoso

IN MORE WAYS THAN ONE

DANIEL STOVER – STROKE REHABILITATION

When a severe hemorrhagic stroke left Daniel Stover unable to use his left hand, focused rehabilitation and a novel toggle-key saxophone allowed him to play on.

“I fell in love with the clarinet in the sixth grade,” Stover says. “Music is my artistic outlet. I can’t draw. I can’t act. I can’t sing. Playing an instrument allows me to express my passion for life.”

In July 2008, Stover suddenly developed a severe headache and lost consciousness. He was rushed to a nearby hospital, where a CT scan revealed a hemorrhagic stroke caused by two brain tumors later diagnosed as non-Hodgkin’s lymphoma.

After inpatient treatment, he was then admitted to TIRR Memorial Hermann in September under the care of brain injury specialist Sunil Kothari, M.D.

He resumed part-time teaching in October 2009, with no functional use of his left hand. Unable to play music, Stover sank into depression. “I was desperate to be able to make music again,” he says. “A former teacher introduced me to Jeff Stelling of Kearney, Nebraska, who developed a toggle-key sax playable with one hand. I sent my sax off to be converted and taught myself how to finger through the patterns.”

Stover gave his first post-stroke recital with the one-hand sax in March 2014. “It felt wonderful,” he says. “When I started playing, I was right back to my old self again.” Today, Stover gives private lessons and is working on a new recital program. “I teach because I love music,” he says. “As Nietzsche put it, ‘Without music, life would be a mistake.’”

PROVEN STROKE RECOVERY PROGRAM

The level of rehabilitation care and amount of therapy a patient receives post-stroke dramatically affects recovery and outcomes. The guidance of both the American Heart Association and American Stroke Association is that patients who’ve suffered a stroke should be sent directly to inpatient rehabilitation after their acute hospital discharge. Our inpatient stroke programs across Greater Houston work one-on-one with patients to achieve successful rehabilitation outcomes in the areas of independence, mobility, speech and quality of life.

When compared to patients receiving care in a skilled nursing facility, patients who receive inpatient rehabilitation after a stroke have:*

3x greater improvement in self-care

5x greater improvement in mobility

8x greater improvement in cognition

*Source: Does Post-Acute Care Site Matter?, AMPR (2013)



Inpatient REHABILITATION

At TIRR Memorial Hermann, patients benefit from an integrated approach to inpatient rehabilitation. Our highly trained rehabilitation teams are committed to seeing the potential in every patient they work with, and to developing that potential to the fullest through customized goal setting and treatment planning. Our inpatient rehabilitation programs are anchored by board-certified affiliated academic physicians, neuropsychologists, rehabilitation nurses, pharmacists, social workers, case managers, and physical, occupational and

speech therapists. Our therapists are also highly trained in aquatic rehabilitation. We offer aquatic therapy programs in the inpatient and outpatient setting. We work to maximize independence, restore function and improve the quality of life for our patients. Education classes, counseling and individualized training prepare families and caregivers for caring for the patient after discharge. Patients can continue regaining skills at TIRR Memorial Hermann outpatient rehabilitation programs.

Outpatient REHABILITATION

TIRR Memorial Hermann has extended its top-notch rehabilitation to many outpatient locations throughout Greater Houston. The Outpatient Medical Clinic at TIRR Memorial Hermann is a physician-based clinic designed to meet the needs of individuals who require initial or continuing rehabilitation care with a physician. **The Challenge Program** is a comprehensive

community reintegration program for brain injury survivors, 14 years of age or older. The program assists individuals in returning to community activities. Once rehabilitation is complete, exercise plans tailored to the individual are available through TIRR Memorial Hermann's **Strength Unlimited**, a community-based wellness and recovery program.

"It was the greatest moment of my life. I'm paralyzed, and I could push my baby out."



A MOTHER'S *Wish*

MEENA OUTLAW – SPINAL CORD INJURY REHABILITATION

In 2011, Meena Outlaw, author of the *Mattie Has Wheels* children's books, celebrated the birth of her third child despite paralysis from an incomplete spinal cord injury (SCI) she suffered 11 years earlier. She attributes this in large part to Hunter Hammill, M.D., a physician affiliated with TIRR Memorial Hermann, who has been helping patients with SCI deliver for over 25 years.

"When my husband and I married in 2006, he didn't expect to have children with me and raised the two from my previous marriage as his own," Outlaw says. "Suddenly, we had the prospect of having a child together." Outlaw was then referred to Dr. Hunter Hammill at the TIRR Memorial Hermann Outpatient Medical Clinic. "When we met, he asked me what I'd heard about pregnancy and spinal cord injury. I went down my list of mostly cons. I was high-risk and would have to have a C-section. He told me to rid myself

of those thoughts and start thinking about having a baby."

When it came time to deliver, Outlaw, who has fragments of pelvic sensation, wanted to push her son out. With the first push he moved 4 centimeters. With the second push he came out. "It was the greatest moment of my life," she says. "I'm paralyzed, and I could actually push my own baby out." James Om Prakash Outlaw was born on June 29, 2011.

In addition to *Mattie Has Wheels*, Outlaw has published *A Moment in Time*, a short biography of her life after the accident, and two other books in 2014.

Outlaw typifies the fortitude of Dr. Hammill's patients, who go on with their lives despite their injuries. "My patients with spinal cord injury are some of the most interesting people I see, with the best auras," he says. "Most are told they can't get pregnant or if they are pregnant, they should abort. Then they see me and I say, yes, let's have a baby."

Spinal cord injuries affect many body systems from circulation to metabolism to temperature regulation to sexuality. Through the **TIRR Memorial Hermann Spinal Cord Injury (SCI) Program**, rehabilitation professionals provide interdisciplinary education and care, along with specialized services such as in-house urology consultation and urodynamics studies, spasticity management, obstetrics and gynecology clinic and a male and female fertility clinic. They consider their mission accomplished when patients with spinal cord injury achieve personal independence, productive functioning and maximum health.

WHERE THE LITTLEST MAKE THE
biggest comebacks

PEDIATRIC AND ADOLESCENT REHABILITATION

TIRR Memorial Hermann offers specialized pediatric therapy programs at our inpatient and outpatient locations; outpatient programs serve newborns through adolescence and inpatient programs serve children ages 10 and up. For children and adolescents newly released from intensive care and those whose recovery from neurological illness or injury is already underway, affiliated physicians and therapists have one goal: getting young people back to school and play surrounded by family and friends.

The team uses a comprehensive, integrated approach to rehabilitation, customizing treatment plans to each child's lifestyle and educational and personal needs. Family

members participate actively in the development of the rehabilitation plan, working closely with the child's team to find realistic solutions to the challenges their child faces in therapy and at home.

Children and adolescents benefit from the skills they regain in the clinical setting during the day, combined with emotional support at home.

TIRR Memorial Hermann is the only program in Houston offering therapy and other rehabilitation services for pediatric patients from birth through adolescence and adulthood.



Education

ACADEMY

“As pioneers, we provide the educational building blocks that create and sustain the foundation of rehabilitation.” — from TIRR Memorial Hermann Mission Statement

At TIRR Memorial Hermann, we’re committed to education in the areas of physical medicine & rehabilitation (PM&R), neuropsychology, spinal cord injury medicine, brain injury medicine, neurologic physical therapy, nursing, physical therapy, speech language pathology and occupational therapy. Rehabilitation professionals and students can

attend one of our many continuing education courses hosted each year, apply for a residency, fellowship, clinical rotation or internship, or participate in student observation. Annually, TIRR Memorial Hermann’s Education Academy hosted 29 courses awarding over 10,000 hours in continuing education to over 1,000 participants.

T I R R M E M O R I A L H E R M A N N

Research Center

“Research is to see what everybody else has seen, and to think what nobody else has thought.”
— Albert Szent-Györgyi, Winner of the 1937 Nobel Prize in Physiology or Medicine

TIRR Memorial Hermann is a national leader in rehabilitation. That recognition is based on a solid history of accomplishment in clinical care, backed by a 60-year legacy of innovation through research. Research has always been an integral part of TIRR Memorial Hermann’s name. Founded in 1959 as the Texas Institute for Rehabilitation and Research, the hospital

evolved from providing treatment to people who survived the polio epidemic in the 1950s to providing rehabilitation for people with spinal cord and brain injuries. Today, with over 52 researchers receiving nearly \$40 million in total research funding, we are breaking the boundaries of rehabilitation one study at a time.

CENTERS OF RESEARCH INCLUDE:

Brain Injury Research Center • Spinal Cord Injury and Disability Research
NeuroRecovery Research Center • Independent Living Resource Utilization

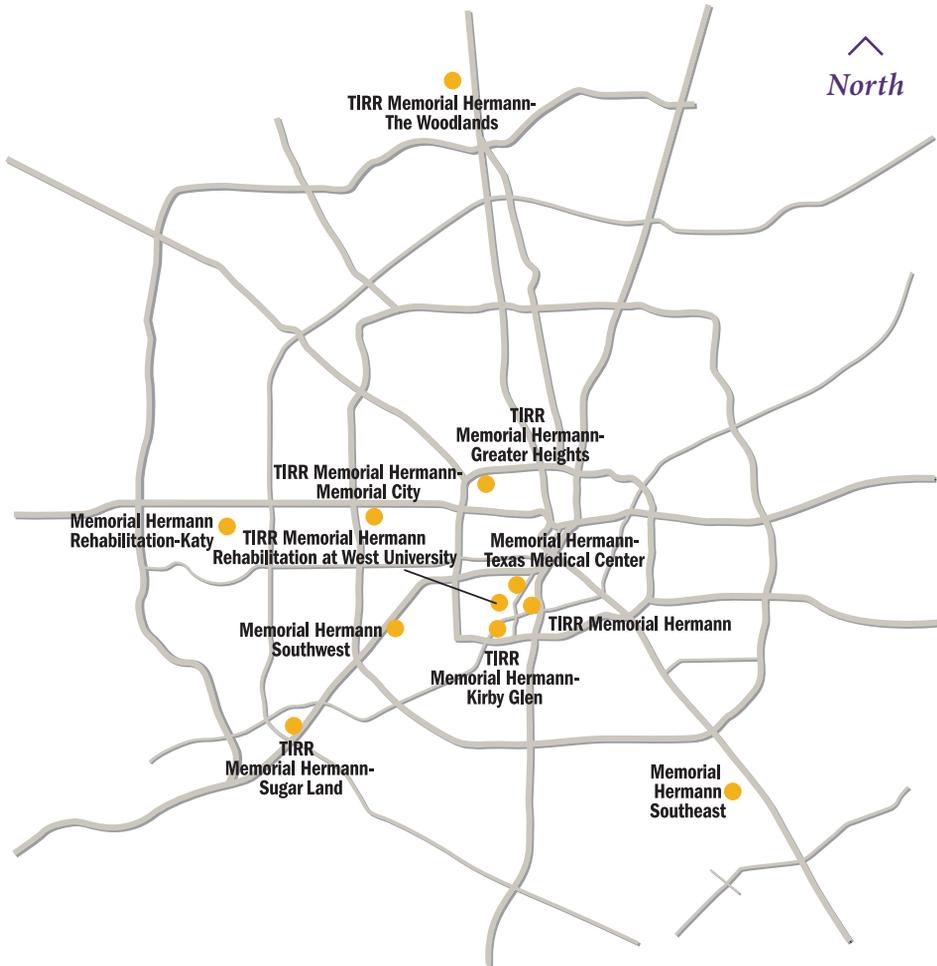
Rewriting Stories—

Lex Frieden, Director of the TIRR Memorial Hermann ILRU program, Co-architect of the Americans with Disabilities Act and former patient



LOCATIONS

TIRR Memorial Hermann has Houston covered with convenient locations across the city.



TIRR is a registered trademark of TIRR Foundation.

TIRR
MEMORIAL[®]
HERMANN
Rehabilitation & Research

The men, women and
children who pass through
our doors achieve things that
once seemed impossible.

They reach as high as they can,
and then they reach just a little higher.

TIRR.memorialhermann.org

1.800.44.REHAB

