#### A PUBLICATION FOR THE FRIENDS OF MEMORIAL HERMANN

Memorial Hermann Foundation FALL 2023

### **ADVANCING THE**

To health. TOMORROW'S PROMISE.



# DEAR FRIENDS,

T can't imagine a better way to escape our Houston heat than to join our Foundation friends and board members for our "Elevated Connections" summer retreat in Aspen.



Starting with a cocktail reception hosted by two of our longtime friends in their beautiful mountain home and ending with a lovely brunch hosted by Melissa Juneau and Leticia Trauber, this year's event was

a lively and meaningful experience. I sincerely appreciate you all, including Lexi Trauber who stood in for her mom.

Once again, the group focused on Memorial Hermann Life Flight® and trauma services with Drs. Callender and McCarthy sharing the latest on this amazing and vital community resource.

In this issue, we're featuring trauma care, which includes Life Flight's pre-hospital medical air ambulance services, of course, but also the full scope of care Memorial Hermann provides, from the ER to the operating rooms to rehabilitation.

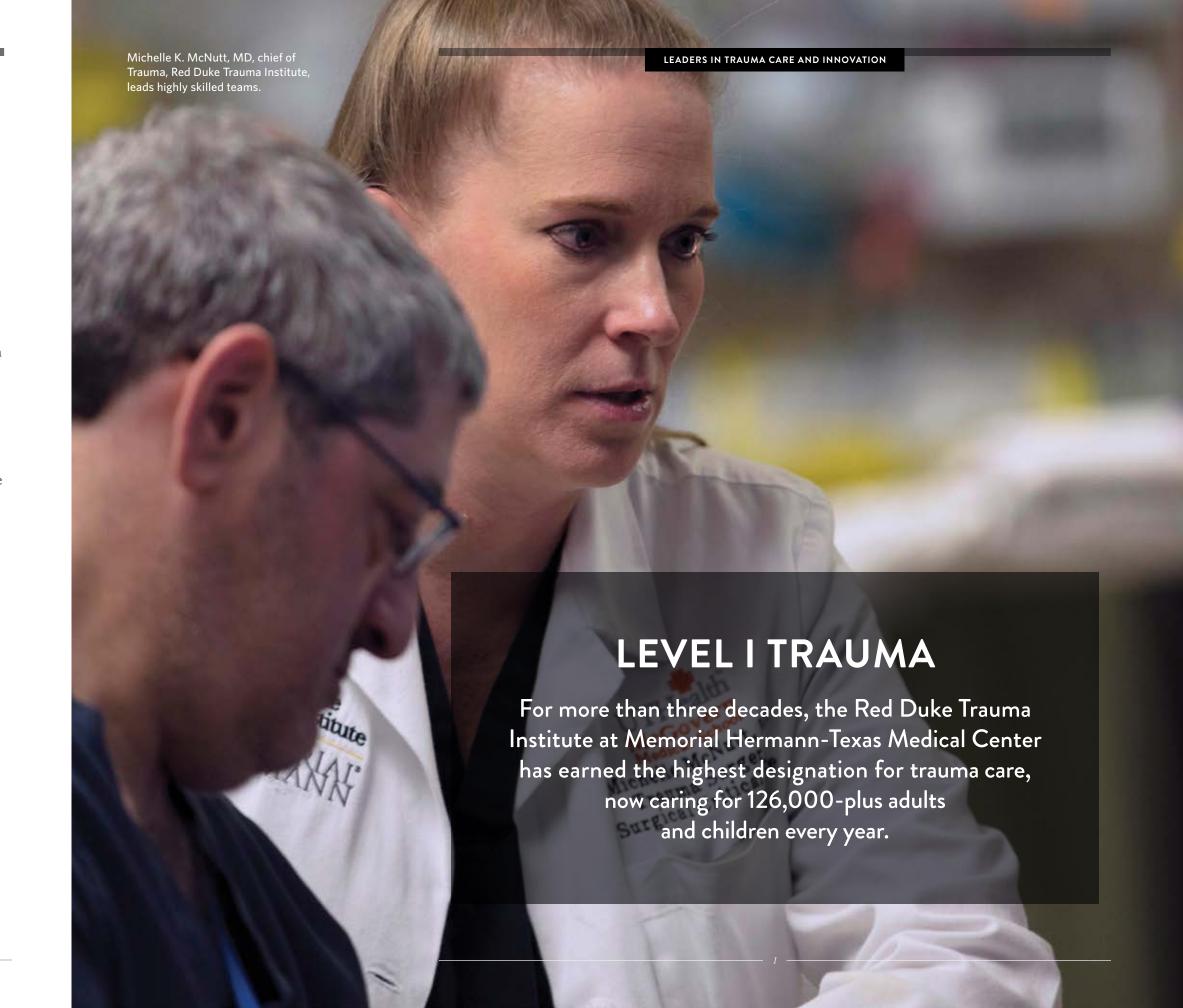
As always, we are showcasing some of the patient experiences that so eloquently demonstrate why Memorial Hermann deserves our gratitude and support.

Thank you all for your continuing friendship and involvement.

Have a healthy, happy fall.

Anne E. Neeson

Executive Vice President & CEO Memorial Hermann Foundation





# **Seamless Medical Expertise** when Every Second Counts

y definition, a Level I trauma center must serve as a comprehensive regional trauma resource, capable of providing 24-hour care for every aspect of injury, from prevention to rehabilitation. In Texas, the state identifies the criteria for Level I designation. The American College of Surgeons verifies the presence of the resources required to meet those criteria.

The Red Duke Trauma Institute more than meets these Level I designation qualifications and was one of the first in the nation to do so. Serving a population of 5+ million people, it is now one of only two Level I trauma centers in Houston and the only one with medical air ambulance services and a burn center verified by the American Burn Association. It also houses adult and pediatric trauma centers, verified by the American College of Surgeons, under one roof. As such, it is a vital safety net for the entire Southeast Texas region. It is also an important teaching and research institution, known for innovations in trauma and critical care.

With these high-level qualifications, the Red Duke Trauma Institute sees more severely injured patients than any other trauma center in the country. It also has one of the nation's lowest mortality rates.

#### Memorial Hermann Life Flight

Playing an essential role in the circle of care, the Life Flight fleet is strategically located across the region to ensure patients' in-flight critical care and speedy transport to Memorial Hermann-TMC. Onboard capabilities include lifesaving blood products, extracorporeal membrane oxygenation (ECMO) and ultrasound imaging. Life Flight operates out of the John S. Dunn Helistop, one of the world's busiest helipads, atop Memorial Hermann's Susan & Fayez Sarofim Pavilion.

#### TIRR Memorial Hermann

One of the top rehabilitation hospitals in the nation and recognized as a national rehabilitation innovation center, TIRR Memorial Hermann offers comprehensive inpatient and outpatient care to meet the individual needs of patients experiencing life-altering injuries and illnesses. Some of the world's leading physicians in rehabilitative medicine provide care here on their mission to transform lives and inspire hope.

#### Unique to the Red Duke Trauma Institute

Verified John S. Dunn Burn Center

Verified pediatric and adult trauma centers

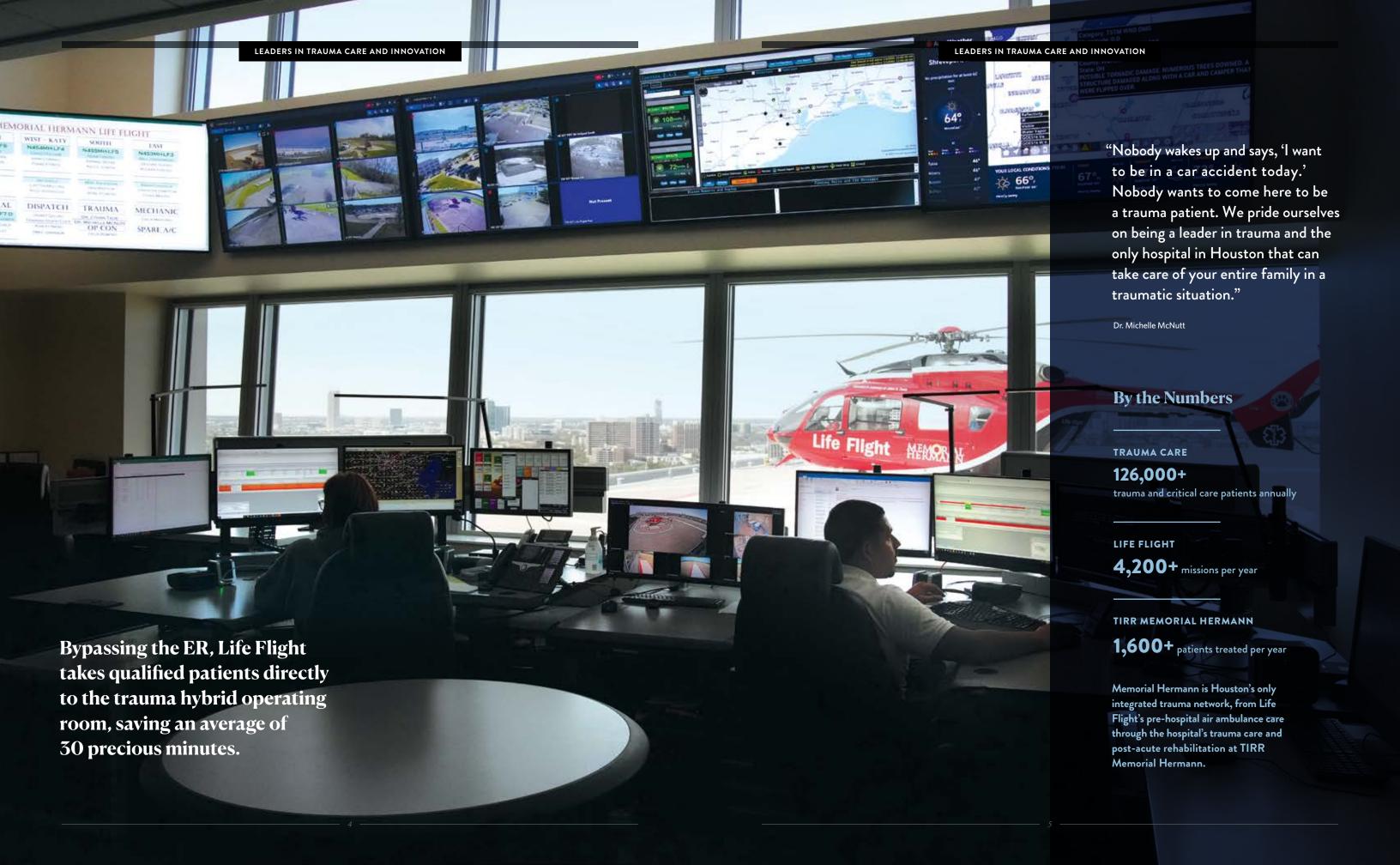
Among the region's highest volumes and the nation's lowest mortality rates

Life Flight medical air ambulance services

Nationally recognized TIRR Memorial Hermann rehabilitation center Two trauma surgeons on call every night

Trauma survivorship program

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While volumes and outcomes are only part of the impressive story, they play a starring role. A busy, successful trauma center attracts the best and brightest talent: people dedicated to the cause and to participating in a collaborative, research-based environment focused on doing what's right for patients and their families.

# A busy, successful trauma center attracts the best and brightest talent.



As the Red Duke Trauma Institute's trauma chief, affiliated physician Michelle K. McNutt, MD, appreciates the need for speed, especially in the collaborative efforts between

the hospital and Life Flight for critically ill and injured patients. "Our new scene-to-OR pathway has decreased the time from the hospital arrival to the operating room by an average of 30 minutes," she says.

The special trauma hybrid operating room is another time-saving innovation that combines the benefits of a standard operating room suite with advanced imaging techniques such as CT scanning and angiography.

"In the hybrid OR, we can operate on a patient's neck, chest, abdomen and extremities, and also image their brain and do angiography to identify internal bleeding, all in the same place."



Tony Herrera, CFRN, is a Life Flight crew member. The team's skills are tested every day as they use advanced onboard resources to keep patients stable and the Red Duke Trauma

Institute's trauma team up to speed on their injuries and status.

"We're an extension of the hospital," Tony says. "We're constantly reassessing, making sure we're doing everything we can to improve survivability." The work is stressful, challenging and unpredictable. "You play a vital role in survivability of these patients. That's somebody's daughter, somebody's son. You want to do everything you can to make sure they survive."



James McCarthy, MD, Memorial Hermann's chief executive physician, previously served as the chief of Memorial Hermann-TMC emergency services. He knew he wanted to work

in a "giant, crazy-busy trauma center," and he certainly got his wish.

Trauma care starts with medics, another area where the Red Duke Trauma Institute shines. Dr. McCarthy helped train Life Flight nurses and paramedics who performed in-flight wonders for patients before hospital teams ever saw them. Once patients arrived, he saw his emergency department's teamwork as uniquely collaborative, with no time for the "silliness and posturing" he'd seen elsewhere. "You're shoulder to shoulder all night long, so you have to be a great team."



The Red Duke Trauma Institute is one of only two Level I trauma centers in Houston, serving a population of 5+ million people.

## COMPREHENSIVE SERVICES PRE-HOSPITAL TO REHABILITATION

SPEED OF CARE • Life Flight's process, which bypasses the ER, takes qualified patients directly to the trauma hybrid operating room, saving an average of 30 precious minutes.

HIGHLY TRAINED PHYSICIANS • Memorial Hermann proudly partners with esteemed medical schools, providing the latest innovations and advanced treatments in collaboration with highly trained physicians and specialists.

FAMILIES STAY TOGETHER • Having both adult and pediatric verified Level I trauma centers under one roof means families can be treated at the same time in the same facility.

ONGOING TRAINING • Each year, Memorial Hermann completes drills to ensure that everyone, from the paramedics on the scene to the surgeons in the operating rooms, is equipped and trained to respond the moment disaster strikes.

#### **ACCLAIMED REHABILITATION CENTER** •

Continually recognized as one of the top five rehabilitation hospitals in the nation by U.S. News & World Report, TIRR Memorial Hermann is a national leader in medical rehabilitation and research.

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Patel and her family in Sugar Land, Texas. Kavya was home for the winter break from her first year at Texas A&M University. That holiday is one she and her family will always remember as the one when they very nearly lost Kavya.

It began when Kavya experienced stomach pains so severe she went to the emergency room. Doctors diagnosed an inflammatory disease and put her on steroids. She spent several days in intensive care before being discharged.

That was that. Or so she thought.

Back at home, she and her best friend were in Kavya's kitchen, chatting and having fun when Kavya blacked out and collapsed on the floor. From that moment on, a string of serendipitous events unfolded that many would later call divine intervention.

Her brother, Shlok Patel, and her aunt, Sweta Patel, were there, too, and everyone sprang into action. Kavya's friend dialed 911. Shlok ran next door to get help from their neighbor. Sweta, a nurse, began CPR, which she continued until the EMS team arrived.

Kavya's father, Manish Patel, MD, is a cardiothoracic and vascular surgeon affiliated with Memorial Hermann. He was consulting with Biswajit Kar, MD, when Kavya's mother, Prerana Patel, called to tell him about Kavya's collapse. Dr. Kar is an interventional cardiologist affiliated with Memorial Hermann. He immediately understood the gravity of the emergency and was instrumental in helping Kavya receive the critical care she needed to survive.

As Dr. Patel rushed home, Dr. Kar rushed to Memorial Hermann Sugar Land Hospital, arriving just as Kavya was being wheeled in, still receiving CPR from the EMS team. When he saw the flatline, Dr. Kar and the care team began defibrillation.

#### One critical decision leads to another

"I knew that restoring her heartbeat was critical," he said, knowing that doing so also meant she'd have to be placed on extracorporeal membrane oxygenation (ECMO), an advanced form of life support. Kavya's heartbeat came back to normal, but she was still unconscious. This was the first of three cardiac arrests she would have that day.

# "At this point, Kavya had only a 5% chance of survival."

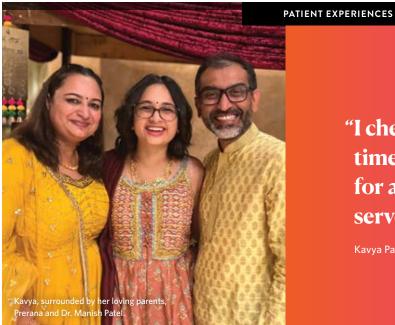
**Biswajit Kar, MD,** Chief, Medical Division, Center for Advanced Heart Failure, Memorial Hermann Heart & Vascular Institute-Texas Medical Center

The team was worried about Kavya's brain. "It only takes three minutes without adequate blood flow for the brain to be gone," says Dr. Kar.

A CT scan confirmed their concerns. Dr. Kar asked Nitin Tandon, MD, a neurosurgeon affiliated with Memorial Hermann-Texas Medical Center, to prepare to perform a craniectomy, a surgery to remove part of her skull. This is a rare option for a patient on ECMO.

"That's how dire the situation was," Dr. Kar explains. "At this point, Kavya had only a 5% chance of survival."

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"I cheated death three times, so I must be here for a reason. I want to serve as hope for others."

Kavya Patel



Kavya desperately needed a higher level of care. The hospital team in Sugar Land summoned Memorial Hermann Life Flight to provide medical air transport to the Red Duke Trauma Institute at Memorial Hermann-Texas Medical Center.

Repeat CT scans showed that the bleeding had progressed. Time was of the essence. "She had blood all over the right side of her brain," Dr. Tandon recalls.

#### Two craniectomies, half her skull

Dr. Tandon and his hospital team removed a 5-inch portion of Kavya's skull to relieve the swelling in her brain, but she began bleeding profusely. The team methodically worked to control it. While they were at it, Kavya's heart stopped again-and then again-each time receiving defibrillating shocks to bring her back as Dr. Tandon did his work.

Kavya's pressure stabilized but not for long. As other parts of her brain started bleeding, the pressure in her head began to climb, requiring a return trip to the operating room for another craniectomy. Finally, the bleeding stopped. And yet there came another complicated decision to be made.

Staying on ECMO required continuing blood thinners, which was not an option for someone in Kavya's condition. After much debate and careful consideration, the team decided to stop the ECMO machine, a risky proposition but Kavya's only real hope for recovery. "We knew that a life without a brain is of no use," Dr. Kar explains. "I believed Kavya's heart could take it. But you never know for sure."

The team held their breaths as they stopped the machine. When her blood pressure plummeted, they feared it was all over. And then, Kavya suddenly came back, this time for good. She awoke a couple of days later and began realizing the effects of her ordeal.

"I wasn't paralyzed," she recalls, "but it was hard to move the left side of my body."

#### "Miracle Girl" works to inspire others

Kavya spent three weeks recovering in the hospital and then transferred to TIRR Memorial Hermann for inpatient therapy, overseen by affiliated attending physician Prathap Joseph, MD. Her brain injuries presented several difficult challenges.

"She could recognize her family, but she had obvious cognitive dysfunction," says Dr. Joseph. "Our team of occupational and speech therapists was determined to help her regain cognitive function."

Kavya spent two weeks at TIRR Memorial Hermann and then continued outpatient therapy there for another three months. Understanding that recovery from a brain injury can take years didn't stop her from going back to school and making plans for her future.

### "Kavya could recognize her family, but she had obvious cognitive dysfunction."

Prathap Joseph, MD, Attending Physician at TIRR Memorial Hermann

Kavya transferred to the University of Houston where she is now in her senior year, studying public health and thinking about life in a whole new light.

"They called me Miracle Girl," she says, laughing. "I cheated death three times, so I must be here for a reason. I want to serve as hope for others. To show them what I know—that anything is possible."

Your gifts to Memorial Hermann Foundation support Life Flight, trauma care and TIRR Memorial Hermann.





#### ASPEN GATHERING





Memorial Hermann Foundation recently presented this annual special event highlighting the state of health care, Memorial Hermann's role in improving the health of Greater Houston and The Fetal Center. David L. Callender, MD, moderated a fascinating discussion with affiliated physicians and thought leaders Anthony Johnson, DO, and Ramesha Papanna, MD, MPH, about their latest work and innovations in the field of maternal-fetal medicine.



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# PAIN WARRIOR

In honor of their son, Pam and Jimmy Erwin founded the Will Erwin Headache Research Foundation to fund vital research to uncover the mysteries of debilitating headaches and bring an end to the pain they cause.

ew experiences rival the helpless torment of losing a child. Unfortunately, this is an experience Pam and Jimmy Erwin know all too well. Their 24-year-old son, Will, took his own life in 2010 after living with the unbearable pain of debilitating migraine and cluster headaches for years.

For those who have never suffered these types of headaches, the pain is hard to fathom. They are commonly referred to as suicide headaches.

"Doctors say it's the worst pain a person can have," says Jimmy. "Even though debilitating headaches affect 12% of the world's population, nobody was doing anything about it."

Pam Erwin has lived with migraines since she was a child, but the pain her son endured was something quite different. "There's a physical change with cluster headaches," she says. "His whole face would droop, almost as if he were having a stroke." Will told them it felt like having a knife jammed into his eye that turned around and around for hours on end.



"No one loved life more than Will, but he lost hope." Jimmy Erwin remembers a son full of spark and ingenuity.

The Erwins tried every doctor and treatment they could find for their son. Eventually, Will headed to Boston to take part in a research study that offered some promise. He spent several months there with no relief.

"No one loved life more than Will," says Jimmy. "For four long years, he was a true pain warrior, but with no cure in sight and no escape from excruciating pain, he lost hope."

The Erwins are committed to helping others avoid the agony Will and his family experienced. In June 2014,



they established the Will Erwin Headache Research Foundation, pledging to create a first-of-its-kind national research center.



Mark J. Burish, MD, PhD, a neurologist and interventional pain specialist affiliated with Memorial Hermann, serves as director of the Will Erwin Headache Research Center at the Mischer Neuroscience Institute at Memorial Hermann-Texas Medical Center.

Dr. Burish and his teams are dedicated to the study of debilitating headaches and ending the pain of millions who live with them.

The Center works with leading health care specialists in neurology, interventional pain management, physical medicine and rehabilitation, radiation oncology, research and genetic counseling in collaboration with researchers across the country. Their goal is to identify and enroll patients with intractable headaches and other rare conditions, such as cluster headaches, to better understand why these headaches occur, find interventions to help and ultimately find a cure.

# "Already there are effective treatments that weren't available to Will. We want people to know there is hope. Don't give up!"

Pam Erwin

"Already there are effective treatments that weren't available to Will," Pam says. "We want people to know there is hope. Don't give up!"

One of the Will Erwin Headache Research Foundation's main fundraisers is the annual invitation-only THE WILL Golf Tournament at The Club at Carlton Woods in The Woodlands, set for October 16 this year. Honoring Will's courageous fight, his family and friends are determined to find answers and hope for the future in his name.

"We WILL cure headaches," Jimmy says. "We WILL achieve freedom from pain."

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# **GREAT STRIDES**

After surviving a terrible plane crash, a family man gets back to the life he loves with an innovative limb replacement option.

n 2014, real-estate attorney Alex Weatherford was in his early 30s and enjoying life with his wife and 18-month-old twin daughters. Those good times came to an abrupt and shocking halt one awful day. Alex remembers regaining consciousness at Memorial Hermann-Texas Medical Center two weeks after surviving a plane crash in Shepherd, Texas, an hour north of Houston.

The pilot, a friend of a friend, was flying Alex to look at a property. He buzzed a private landing strip to announce the landing; however, the plane malfunctioned and went down in the surrounding trees. The entire front of Alex's body took the impact, and his legs were crushed. He and his wife, Nicola Dundas, were about to face one of the most dreadful decisions they could imagine.

"I had lost a lot of blood, and I remember the care teams discussing how to move forward," Alex says. "I was in bad shape but not from internal bleeding. I was losing all the blood through my legs. They wanted to remove my legs above the knee."

A month after the accident, Alex began outpatient therapy at TIRR Memorial Hermann Outpatient Rehabilitation – Kirby Glen Center three times a week to rebuild his strength and prepare for prostheses. He soon found out just how difficult that transition can be.

"You go through a lot before you get your prostheses," says Alex. "The shells that fit over your legs are big and bulky. They're hot on your skin, and when you sweat, they lose suction and come off. I tried them for a year and a half, but they weren't for me. I decided to use a wheelchair."

## "I tried the prostheses for a year and a half, but they weren't for me."

#### Coping with the loss of his legs

Alex's way of facing his painful new reality is an all-too-common scenario for patients who live through an amputation. The road to recovery is filled with physical, emotional and social challenges. For those like Alex who have lost two limbs, the impact is even more challenging.

"Many patients do well in the hospital, but returning home where they were previously independent can be difficult," says affiliated physician Vinay Vanodia, MD, director of the Amputee and Limb Loss Rehabilitation Program at TIRR Memorial Hermann.

#### Introducing a life-changing option

In 2021, the FDA approved osseointegration (OI), which aims to overcome the issues associated with traditional prosthetics. An OI prosthesis has a knee, a shin and a foot that connect directly to the thigh bone.

"OI allows people to be more mobile because they're more comfortable," explains Dr. Vanodia. "Our patients say this has been a life-changing experience."

#### Decision time for Alex and family

Alex recalls meeting with David Doherty Jr., MD, adult reconstruction specialist affiliated with Memorial Hermann | Rockets Orthopedic Hospital, to learn about this new technology.

"It's an incredible surgery and has been an amazing experience. When anyone asks me if I'd do it again, the answer is always yes."

"I liked him and his attitude immediately," Alex says. "He explained everything in terms I could understand. I had specific questions for him, and he had all the right answers."

"Alex's experience with traditional prostheses is typical," Dr. Doherty says. "Skin breakdown, pain, falls or lack of confidence are common. That's why these extremely expensive prosthetic legs so often end up in the closet.

With OI, robotic prosthetic legs would be directly attached to his thighs.

Alex enthusiastically became an early OI patient and the first with both legs affected at Memorial Hermann | Rockets Orthopedic Hospital. In April 2021, Dr. Doherty performed surgery to insert titanium rods into Alex's femurs and stage 2 procedures shortly thereafter. Rehabilitation takes time. Patients progress slowly, using shorter prostheses and working through a gradual weight-loading program to regain their balance before switching to the final prostheses they learn to walk with.

"Alex never complained," Dr. Doherty says. "Instead, he said, 'I know you're going to make it work.' He was a calming force for me, his therapy team and his wife."

#### Moving forward on robotic legs

Alex is also known for his sense of humor. "He's always in the best mood," says Dr. Doherty. "And he has great family support. His wife is amazing."

Alex appreciates his family and his Memorial Hermann and TIRR Memorial Hermann care teams for the progress he has made. After seven years in a wheelchair, Alex, now 43, enjoys an even fuller life with his wife, their twins and two new kids, all grateful he's able to go wherever he wants again.

Your gifts to Memorial Hermann Foundation support innovative treatments and rehabilitation.

## "Our patients say OI has been a life-changing experience."

**Vinay Vanodia, MD,** Director of the Amputee and Limb Loss Rehabilitation Program at TIRR Memorial Hermann.



# LEADING THE WAY IN GAME-CHANGING OI TECHNOLOGY



Memorial Hermann is dedicated not only to saving lives but to returning people to a full and vibrant life.

Osseointegration (OI) is an amazing technological advance in prosthetics that changes everything for patients who have lost one or both legs above the knee.

Memorial Hermann is at the forefront of this revolutionary technology. It is also one of the nation's only medical institutions to combine this highly specialized implant surgery with an award-winning, long-term rehabilitation program through Memorial Hermann | Rockets Orthopedic Hospital and TIRR Memorial Hermann to help provide the best possible outcomes.

This unique approach to OI provides highly coordinated care to address physical and mental health challenges.

As a result, patients experience a wide range of benefits including better walking, comfort, range of motion and stability; improved safety with fewer falls; fewer complications and a better quality of life.



Memorial Hermann Foundation

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## VISION

Memorial Hermann Foundation

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# CONNIE BRITTON

ACTRESS & ACTIVIST, FRIDAY NIGHT LIGHTS AND THE WHITE LOTUS

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AMY PIERCE, KRISTINA SOMERVILLE
AND STEPHANIE TSURU

Benefitting breast cancer early detection and outreach programs at Memorial Hermann

razzledazzlepink.org

