

The sound of helicopter blades beating overhead draws one's eyes instinctively to the sky. Is there a traffic problem? Is it a police chase? Or is someone being rushed to the hospital? Spying the familiar red helicopter, whether the words Life Flight are visible on the exterior or not, the viewer immediately knows someone's life hangs in the balance. Thanks to the efforts of Dr. James "Red" Duke and Memorial Hermann Hospital, now Memorial Hermann, Houston became the second U.S. city to offer an air ambulance to transport critical civilian patients to the hospital. Life Flight has saved many lives, including that of my sister, Devanshi Patel, when she was involved in a terrible accident in September of 2011. An ambulance took her to the nearby West Houston Medical Center hospital, but it lacked level one trauma care facilities to stabilize her. Unresponsive and on the brink of death, she was flown to Memorial Hermann in the Texas Medical Center and resuscitated by the Life Flight nurse in the air.¹

When Devanshi first came into the emergency room (ER) at Memorial Hermann she had little chance of survival. Her heart was out of alignment and both of her lungs had collapsed. The accident had also fractured her pelvis, scapula, six ribs, and her first and second cervical vertebrae, which put her at risk for paralysis. Duke began working on her immediately to ensure no further damage occurred. He stabilized her and moved her to the Shock and Trauma Intensive Care Unit (STICU). Fortunately she needed no surgery at that time. Today my sister works as a registered nurse on the trauma floor at Memorial Hermann Medical Center where Dr. Red Duke and the trauma team saved her life after being transported by Life Flight.

An outstanding surgeon, Duke saw the need for accessible medical services for severe cases and helped develop the helicopter service as the fastest way to care for and transport those patients, given their time and distance from the

The Legendary Dr. James "Red" Duke

By Roshni Patel



Dr. James "Red" Duke in 2007 filming one of many video programs he completed during his career.

Photo courtesy of David Almaguer.

hospital's trauma care facility. Known for his affable manner, Duke dedicated his life to furthering medical science, educating the public, and personally caring for patients, all of which contributed to Houston's reputation as a world leader in medicine.

James Duke was born in Ennis, Texas, on November 16, 1928. He acquired the nickname "Red" in adolescence because of his curly red hair. He grew up among friends, with whom he stayed in touch most of his life, and learned to love the outdoors. After graduating from Hillsboro High School, Duke obtained his bachelor of science in economics at Texas A&M in 1950. He served in the U.S. Army for two years as a first lieutenant in the Sixty-seventh Medium Tank Battalion, Second Army Division in Bavaria, Germany. In 1952 he enrolled at Southwest Baptist Theological Seminary where he received his doctor of divinity degree. Although Duke originally intended to enter the ministry, his colleague Dr. Kenneth Mattox, professor at Baylor College of Medicine and Chief of Staff and Surgeon-in-chief at Ben Taub Hospital, explains, "He could not decide if he wanted to preach or be a doctor, as both appealed to him greatly." Duke became the pastor at the First Baptist Church in Vaughn, a small town in north Texas, but after delivering just a few sermons, a tornado destroyed the church. Dr. Drew Ware notes, "Whether this was testament to his ability to preach the gospel or simply God helping him decide what path to follow will forever remain a mystery."²

In 1954 Duke enrolled at the University of Texas Southwestern Medical School in Dallas and graduated six years later. He did his internship and residency at Parkland Memorial Hospital in Dallas and was on duty November 22, 1963, when President John F. Kennedy and Governor John Connally were shot. Duke and Dr. Robert Shaw, the hospital's chief thoracic surgeon, attended to Gov. Connally. In this time before hospitals had ICUs, Duke stayed with

the governor for three days “continuing to resuscitate and care for him.” In a 2013 interview with CBS reporter Jeff Glor, Duke explained that the memory of that day, which he called a “hard painting,” was embedded in his mind: “[A]s I walked out [of] the room, I pulled my gloves off and threw them to a kick basin and those roses [Mrs. Kennedy received at the airport] were upside down in that kick basin and my gloves fell over them.” Glor asked, “You think about those roses?” To which Duke replied, “Mhmm...did this morning.”³

In 1970 Shaw asked Duke to help him start a surgical program at Nangarhar University in Jalalabad, Afghanistan, and Duke spent the next two years training the local physicians there. He returned to Texas in 1972 at the request of Dr. Stanley Dudrick, chairman of the new University of Texas Medical Branch at Houston. As a result of his experience in trauma care at both Parkland and in Afghanistan, Hermann Hospital soon named him director of its new trauma service. His surgical skills made a lasting impression on his colleagues, such as paramedic Frank Mettlach, who remembers a remarkable incident involving the victim of a car accident. Without being briefed on the patient’s injuries, Duke reportedly knew exactly what surgery was needed. Mettlach reports, “He didn’t even touch [the patient,] he just walked in the room. I don’t know if he could smell it or if



Life Flight helicopters brought great changes to emergency response in Houston.

Photo courtesy of the Houston Fire Department.

there was an aura around the patient or whatever,” adding, “I’ve seen him do amazing things.”⁴

Early in his career, Duke worked in conjunction with other doctors and officials in the Houston Fire Department (HFD) to get the Emergency Medical Services (EMS) department established in Houston. Assistant Chief David Almaguer recalls, “He was one of the doctors that realized how important it was to have an ambulance service that was reliable and took care of people even before they got to the hospital.” Duke assisted in early training so that the paramedics who served on the ambulances knew exactly what to do before a patient arrived at the emergency room. Almaguer goes on to say, “He didn’t want us just to be an ambulance service, he wanted us to be an extension of what the physicians needed and what they were doing.” His work, along with that of Dr. Mattox at Ben Taub Hospital and the local medical society, led to Houston EMS getting its first medical director in 1983.⁵

Duke respected the work of EMTs and paramedics in the field and, unlike some, was not one to disregard their paperwork regarding the status of patients arriving at the hospital. Almaguer, a paramedic at the time, observes that Duke was “rough and gruff” with the residents and doctors, but he never saw Duke mistreat the nurses and paramedics, even though the ER might be busy. Duke went out of his way to come down after surgery and, if the ambulance crews were still there, tell them what he found. “He was very good at teaching them about what was going on and why things happened,” Almaguer explains.⁶

In 1976 with the help of Houston philanthropist John S. Dunn, Hermann Hospital launched what became Life Flight, the second U.S. hospital-based air ambulance service following Flight for Life Colorado, which started in 1972. Duke was named Life Flight’s first medical director, enabling him to change emergency medical care for Houstonians. His goal of saving people in a timely manner instead of waiting for a critical patient to arrive at the hospital by ambulance, has proven to be a success.⁷

Life Flight flew its first mission on August 1, 1976. Originally the helicopter’s crew consisted of a military-trained pilot, a registered nurse who served as the leader,



Tom Flanagan (foreground in red), now Chief Operating Officer at Memorial Hermann-Texas Medical Center, responded to calls for Life Flight early in his career. Prior to becoming COO he was responsible for emergency services, trauma service, and Life Flight for the twelve hospital Memorial Hermann system, helping to raise \$40 million to replace the aging fleet of air ambulances.

Photo courtesy of Tom McDonald.

and a surgical resident who assisted the nurse and tended to the patient. Chief Almaguer remembers, “Dr. Duke was on every one of those flights,” in the beginning. Seeing him Almaguer would think, “Wow, that could happen all night, and then the next day.” Duke was so committed to Life Flight that he maintained a room at the hospital to make sure he was available.⁸

As the need for Life Flight grew, the hospital invested in more helicopters and crew members. Flight nurse Scott Ibster and CRNA Susan Martinez report, “There were approximately eighty flights in the first six months of operation, which rapidly increased to fifty flights per month. By the early 1980s the popularity of the helicopter for use in rapid transport was enormous. Hermann Life Flight began using Twin Star helicopters and developed two satellite bases in Beaumont and Galveston.” With the demand growing to 300 flights per month, Hermann placed helicopters at strategic points around the region within 120 miles of each other. In 1999 one helicopter was located at Hermann Hospital, one at Hooks Airport in Spring, and one in Galveston County at Clover Field Airport in Friendswood.⁹

Today Life Flight has a 150-mile radius and accommodates not only Houston and Harris County but also Southeast Texas and part of western Louisiana. They have twenty-one pilots, twenty-one flight nurses, eighteen paramedics/dispatchers, and eight mechanics. The Life Flight fleet, which is inspected daily, consists of six EC-145 twin-engine helicopters capable of transporting two patients. They are equipped with “Packed Red Blood cells, Liquid Plasma, ultrasound, hemostatic gauze, pelvic binders, the JETT tourniquet (created by Memorial Hermann-Texas Medical Center and UT Health Medical School physicians), and ISTAT (in-flight lab analysis).” This equipment and the option to deploy specialty teams, such as

pediatric or neonatal nurses, on the helicopter enables the staff to provide appropriate medical care in times of dire need. Reportedly the busiest air ambulance service in the country, Life Flight has completed well over 140,000 patient missions in its forty-year lifetime.¹⁰

Duke believed the helicopters offered an opportunity to save more lives, but others disagreed. Dr. Mattox was approached to bring helicopter ambulances to Ben Taub, but after looking at the information and statistics on transport timing, he declined. He cites both San Diego and Los Angeles as examples where experiments were conducted to see which form of transport, ambulance or helicopter, arrived at the hospital faster, and in both cities driving an ambulance proved to be the better alternative. Mattox believed this to be true even in Houston traffic, in part because the helicopter had to warm up for fifteen minutes before it could lift off and then fly to the destination where it must then have a place to land. He thought Duke was “a fool for establishing Life Flight.” Today Mattox still believes that for most situations within the city, no matter the severity, a traditional ambulance is the best method of transport to save a patient’s life.¹¹

Dr. David Persse, EMS Physician Director and Public Health Authority for the City of Houston, believes that in some cases helicopters can be useful, such as when the person cannot be reached by ambulance in a timely manner because they are in a remote area. “One of the things I respect about Life Flight is that [the people involved] are critical thinkers,” says Dr. Persse. He agrees with Mattox that if an accident were to happen within a forty-mile radius, little time difference would be found between transport by ambulance and helicopter. Yet he also agrees with Duke on the wisdom of using helicopters when it comes to accessibility in certain circumstances. Dr. Persse cites as an example

Life Flight transporting an accident victim to Memorial Hermann Hospital-Texas Medical Center.

Photo courtesy of David Almaguer.





Dr. David Persse, Public Health Authority and Physician Director for Houston EMS, and Dr. Duke worked together to modernize and coordinate response efforts of Life Flight, Memorial Hermann Hospital, and Houston EMS. Photo courtesy of Diana Rodriguez.

a medical emergency on the northeast side of Houston by Lake Houston. A man had a heart attack there, and EMTs transported him to a nearby fire station where a helicopter was waiting to take him to the hospital. The flight time was seventeen minutes, a far shorter time than an ambulance could make the trip even at night when all the roads were clear. Houston EMS responders determine the need for Life Flight on a case-by-case basis.¹²

Life Flight has had one fatal crash, which occurred in 1999 as a result of manufacturing defects with the BK-117 helicopter in use at that time. The accident resulted in the loss of three crew member lives, pilot John Pittman, flight nurse Lynn Ethridge, and paramedic Mac Atteberry. Dr. Persse says he will never forget that moment and does not want to repeat it. Therefore he strictly insists that the call for Life Flight must be absolutely necessary.¹³

For many years, Dr. Duke appeared in regular television segments that made him famous for his advice and persona. His folksy television personality, familiar sign-off, and



Committed to helping the public, Dr. Duke regularly appeared on TV to explain, discuss, and give expert medical advice to viewers on everyday issues. In this segment from Houston's ABC-KTRK Channel 13 he talks about the misconception surrounding potatoes and their overlooked health benefits.

Photo courtesy of ABC- KTRK Channel 13, Houston.

youthful country mannerisms brought life and character to every episode. An Emmy-winning 1978 NBC *Lifeline Series* followed Dr. Duke for three weeks, showing the various types of trauma care he administered. The UT Health Science Center Houston asked him to film four segments of the *Texas Health Letter* in response to increased community awareness of health issues. This became a nationally syndicated show that began with reports on the local ABC station, KTRK Channel 13, educating audiences about everything from heartburn to kidney stones to trauma care. Another important TV appearance followed Tropical Storm Allison in June 2001, which flooded numerous hospitals in the Medical Center, removing them from service. Duke and Mattox, representing Houston's only level one trauma centers (Memorial Hermann and Ben Taub), appeared on television with EMS Director Persse to ask their fellow Houstonians not to drink on the Fourth of July. "July 4th is coming up, as you enjoy it with your family drink milk not beer," they told everyone. Having that airtime made an impact and no trauma cases came to the ERs that night.¹⁴

Duke and Mattox had come into the medical field about the same time from similar Baptist backgrounds and shared many interests. Although they differed in opinion on the role helicopters should play in emergency care, Mattox recalls, "We never saw each other as competitive. We saw each other as pacing one another, and then when we needed to, we'd make a statement."

Well-respected throughout the U.S. medical field, Red Duke was a lively and loveable person and an amazing doctor. His playful ways and larger-than-life personality left those around him bright and happy, especially my family at a very distressing time. When asked to describe Duke in one world, Chief Almaguer said, he was a "good-old-boy" who was always helpful and ready to teach others. Mattox called him a "character."¹⁵

Duke's impact on Houston's trauma care and medical advances should not be forgotten. He helped Memorial Hermann Hospital excel with his tenacious attitude towards furthering medicine and the standard of emergency care in Houston. His dedication to medicine and Life Flight remains memorable among those who worked with him at the Texas Medical Center or simply observed him on television. Dr. Red Duke passed away on August 26, 2015, at the age of eighty-six. The Memorial Hermann Texas Trauma Institute was renamed the Memorial Hermann Red Duke Trauma Institute in his honor on May 7, 2016. Craig Cordola, a senior executive for Memorial Hermann, remembered Dr. Duke as "a mentor, teacher, and friend to so many," saying the hospital is "privileged to work with the Duke family to continue his legacy." He is sorely missed in the hallways at Memorial Hermann and in the field of medicine.¹⁶

"From the University of Texas Health Science Center in Houston, I'm Dr. Red Duke."¹⁷

Roshni Patel is a senior at the University of Houston majoring in history with a minor in political science. She plans to pursue law after graduation.