



Health Matters

Cardiology that **Doesn't Skip a Beat**



The comprehensive cardiac program at The Medical Center of Plano (MCP) offers the highest level of care for heart disease. MCP boasts highly trained specialists and advanced technology. In the toughest cases, however, patients and families appreciate something else as well: doctors who do everything it takes to make a difficult diagnosis and to treat a complex problem.

Below, two cardiovascular patients share their stories. Their cardiologists went above and beyond to make sure they received the best possible care.

A SECOND CHANCE AT LIFE

Richard Royster has seen 75 Christmases come and go. Yet he almost didn't make it past December 25, 2012. As Royster and his wife were sitting at the kitchen table, his heart suddenly went into ventricular fibrillation (v-fib), a life-threatening heart rhythm. In v-fib, the lower chambers of the heart quiver uselessly rather than pump blood as they should. Without treatment, v-fib can be fatal within minutes.

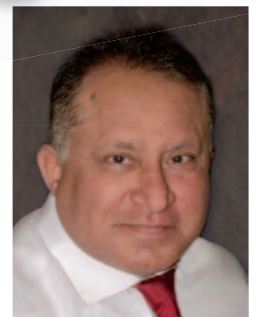
Royster's wife called 911 and performed CPR until help arrived. Still, Royster was on the brink of death by the time paramedics reached him. After resuscitating Royster, paramedics rushed him to the emergency room at MCP. There, he was met by Mordecai Klein, M.D., Director of Interventional Cardiology at MCP. "If Dr. Klein wasn't there that day, I wouldn't be here now," Royster says.

Tests showed that Royster's v-fib had been brought on by a heart attack. The heart attack, in turn, had been caused by a complete blockage in one of the arteries bringing blood to his heart.

To restore blood flow through the artery, Dr. Klein performed a minimally invasive procedure called coronary angioplasty. Dr. Klein ran a thin, flexible tube, called a catheter, up the artery to the site of the blockage. Next, he inflated a balloon at the tip of the catheter to push the artery open. Then, he inserted a small mesh tube, called a stent, to hold the artery in the open position. Finally, the balloon was deflated and the catheter removed, while the stent was left in place.



Mordecai Klein, M.D.



Akram Khan, M.D.

ONE CRISIS DOWN, A FEW MORE TO GO

That was just the beginning. When Royster's heart stopped pumping normally, his brain had been deprived of oxygen-rich blood for several minutes. "We were concerned that he would sustain irreparable brain damage," says Dr. Klein. "One way that we could potentially save his brain was to cool him down. This slows the metabolism,

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which decreases the amount of oxygen required.”

Through a tube inserted into a vein in Royster’s thigh, a cooling machine lowered his blood temperature to 92 degrees. After maintaining this temperature for 24 hours, he was slowly rewarmed. Medication ensured that he remained asleep and immobile throughout this time.

There were other concerns as well. Royster was in cardiogenic shock, which caused his blood pressure to plummet. Cardiogenic shock is a potentially fatal condition in which a suddenly weakened heart is unable to pump enough blood to the body’s organs.

To treat this condition, Dr. Klein inserted a balloon pump. This device was placed temporarily in the main blood vessel leading from his heart to his body. A balloon in the device inflated

and deflated in time with the heart’s own rhythm, which helped pump more blood.

Other parts of Royster’s body had been seriously affected as well. The circulation in his legs, already poor, was further compromised. Eventually, his right leg had to be amputated. His kidneys shut down for a time, so he needed dialysis until his kidneys gradually began working again. Another blockage formed in a coronary artery, so he required a second emergency stent. And while going through all this, his gallbladder became infected.

“His care was so complex, he wouldn’t have made it without great nursing and great technology,” says Dr. Klein.

“The nurses were outstanding,” Royster says. “One day, I would like to go back and say, ‘Hey, you see me here? This is what you did for me. I am very thankful.’”

Royster’s wife, Marcy, shares, “The

nursing staff in the critical care unit were true angels of mercy. They were the most patient, caring group I have ever seen. They took amazing care of my husband, 24/7.”

The dedicated treatment team never gave up on Royster. “Despite his advanced age and the severity of his situation, the team went all out to save him,” says Dr. Klein. “Even though many of his problems were severe or life-threatening, they were not irreversible. You have to judge each case and not just write patients off because they are old or very sick.”

AWAKENING TO NEW CHALLENGES

Royster remained in a deeply sedated sleep for weeks, throughout these ups and downs. “When they finally brought me out, my wife was crying. She said, ‘I have some bad news for you.’ So I said, ‘Well, lay it on me,’” Royster recalls. That’s when he first learned about the leg amputation. Royster didn’t miss a beat: “I just turned to Dr. Klein and said, ‘OK, where do we go from here?’”

The road ahead wasn’t easy. Royster had to rebuild his strength and adjust to life with a prosthetic leg. After his kidneys recovered and he was stronger, he returned to MCP for bypass surgery. And once he recovered from the surgery, he was back again to receive an implantable cardioverter defibrillator—a small device placed in the chest that can automatically deliver a shock to the heart if it ever goes into another life-threatening rhythm.

Today, Royster’s life has finally settled into a quieter routine. He’s savoring everyday life at home with his wife. He can walk short distances, and he uses a scooter when he wants to go farther.

Royster returns to see Dr. Klein for checkups every four months. “I can’t say enough about Dr. Klein,” he says. “Here I am, 75 years old, and I feel like 60.”



After suffering several cardiac emergencies, Richard Royster is enjoying everyday life at home with his wife, Marcy, thanks to the dedicated treatment team at The Medical Center of Plano.