

THE LIFE-SAVING JOB OF LVADS

A left ventricular assist device (LVAD) kept Chris Rice going while he waited for a heart transplant.

A heart failure diagnosis can be a life-changing event, often leading to a long road that — in the best-case scenario for those with advanced stages of the disease — ends with a donor heart. But what happens to heart failure patients in dire need of a new heart who spend potentially years on the transplant list?

According to the American Heart Association (AHA), nearly 6 million Americans are living with heart failure, and [900,000 new cases are diagnosed each year](#). Of those, approximately 250,000 are in need of a heart transplant. However, only 5,000 at best receive a heart due to a shortage of donors.

For transplant-eligible heart failure patients battling the latest stages of the disease, their condition continues to progress while they wait. The majority of these patients enter hospice having exhausted the options known to them.

But there may be another option that they, and even their doctors, aren't aware of.

A left ventricular assist device, or LVAD, such as our HeartMate™ mechanical heart pumps are devices implanted in the chest, attached to the native heart, to pump blood for the weakened muscle, allowing patients to continue living.

Meet Chris Rice, a heart failure survivor whose HeartMate LVAD saved his life and allowed him to stay healthy enough to ultimately receive a donor heart.

The Long Road to Diagnosis

If you ever meet Chris, don't be surprised if he gives you a fist bump. That's just how he greets people — and how he approaches life. Things are good these days in Eden, N.C., where Chris lives with his wife, Angie. He chases around his grandchildren, plays golf and strums his guitar with gusto.

But it wasn't always that way. In the early 2000s, at only 36, Chris began feeling sick, weak and frequently out of breath. His doctors thought he had bronchitis and treated him for it. In time, he felt more like himself. But 14 years later, in October 2016, those symptoms came back with a vengeance.

"All of a sudden, I just started to get weak, and even walking across the floor was difficult," he said. "At that time, I knew something was wrong."

The breaking point came when Angie found Chris on his hands and knees, panting for air.

"We thought he had pneumonia," she said. "We went to the local emergency room, and that's when they ran an EKG and figured out it had something to do with his heart."

Doctors diagnosed Chris with acute [heart failure](#) and placed him in the intensive care unit.

"If we'd have gotten Chris another two months down the road, we might not have been able to offer him support," said Dan Bensimhon, MD, medical director of the advanced heart failure and mechanical support program at Moses H. Cone Memorial Hospital. "If you wait too long, if you wait until other organ damage occurs, you've missed that golden window, and Chris was going through that golden window very quickly."

Then his doctors told him about Abbott's HeartMate II™ LVAD, a pump that attaches to the heart to circulate oxygenated blood throughout the body.

The Bridge-to-Transplant Option Chris Needed

For "bridge-to-transplant" patients (as well as those for whom traditional therapies no longer work) who haven't received a new heart but also can't survive without assistance, an LVAD is crucial. With the help of his, Chris was able to build up strength as he awaited a transplant.

"I knew beyond a shadow of a doubt, I was ready to go," Chris said. "I actually met a guy who had one, and when I started talking to him, I thought to myself, 'Really? This guy's got an LVAD? He looks normal. He does normal stuff.' It was very encouraging."

As a caregiver, Angie had some questions of her own. Neither she nor her husband had ever heard of an LVAD, so she wanted to learn all she could.

"They sat me down and showed me an LVAD, put it in my hands, walked me through it all," she said. "They gave me booklets to read. That brought me comfort — how knowledgeable our team was and how willing they were to share that knowledge with me."

Life After LVAD Surgery

In January 2017, Chris finally got his LVAD.

Almost immediately, Angie saw his color improve from a pale gray to a healthy, vibrant shade. "I just saw my husband, and I saw him alive again."

After the surgery, Chris came home a new man.

"From the moment I stepped in my house, my road to recovery started," he said. "I started living my life again, going to church, singing and playing, and doing what I like to do."

The device didn't even keep him from manual labor. Within months, he had put a new front and back porch on his house, and had gotten back to yardwork — tasks that would have caused him to run out of breath before.

Getting a New Heart

Just six months after his surgery, Chris was added to Duke University Medical Center's transplant list.

"He had done very well with the LVAD therapy," said Carmelo A. Milano, MD, surgical director of cardiac transplantation and LVAD programs at Duke University Medical Center. "He was very active, and had recovered very nicely, and was functionally in very good shape for a transplant."

On January 7, 2018, at 51, Chris got his new heart. Thanks to the LVAD, which kept his first heart beating for all those months, the surgery and recovery went well.

"There's no doubt it was because I was in a healthier state," he said. "And I wouldn't have been in a healthier state if it had not been for the LVAD."

Today, life is good for Chris and his family.

"There's no stopping me now," Chris said.