

Father's Life is Saved after Receiving Heart, Kidney and Liver Transplant

Triple organ transplant is first in the nation to use three organs from a donor after circulatory death using innovative approach for organ recovery



Anthony Donatelli, a father of two, received a heart, liver and kidney transplant after a rare disease caused his organs to fail. The triple organ transplant is a first for UC San Diego Health. Credit: Anthony Donatelli.

By:

[Michelle Brubaker](mailto:mbrubaker@ucsd.edu) - mbrubaker@ucsd.edu

September 08, 2022

Anthony Donatelli, age 40, has served in the U.S. Navy for 22 years. On February 14, 2022, he was wheeled into the operating room at UC San Diego Health; his body facing a different

kind of combat. His kidney, heart and liver were failing, and he was about to receive three new organs.

"I didn't have the option of dying. I had two children at home, a six and three-year-old," said Donatelli.

Eight months prior, Donatelli was diagnosed with AL amyloidosis, a rare disease that originates in the bone marrow and causes a build-up of an abnormal protein in tissues and organs. The disease is not curable but, in some cases, bone marrow transplant may be an option.

Donatelli was referred to UC San Diego Health for consideration for bone marrow transplant.

"When Anthony arrived, he had advanced disease with a prognosis of less than one year. His kidneys had failed and needed hemodialysis. He had severe liver dysfunction that required draining fluid from his abdomen two times per week and tests showed his heart function was rapidly declining," said [Marcus Urey, MD](#), cardiologist at UC San Diego Health. "He was dying in front of our own eyes."

It was determined Donatelli needed a heart, liver and kidney transplant — a first for UC San Diego Health and a rare treatment approach offered to patients with AL amyloidosis.

"It was completely overwhelming," said Donatelli. "My emotions ranged from anger to acceptance."

Comprehensive, multi-disciplinary teams made up of abdominal transplant surgery, bone marrow transplant, hematology, cardiology, cardiothoracic surgery, gastroenterology, hepatology and nephrology were assembled.

The first step in the process was to see if chemotherapy could control the bone marrow from making more of the abnormal protein. Donatelli required chemotherapy from time of diagnosis until a few days prior to transplant. He was then deemed a candidate for organ transplant and placed on the wait list.

He spent Thanksgiving and watched the Super Bowl from his hospital bed. Urey was by his side for both.

"The care and compassion I received during that time was top notch," said Donatelli. "UC San Diego Health started to feel like my second home."

After nearly three months of waiting in the hospital with his health deteriorating, a donor was identified.

"This process requires extensive communication and collaboration between the transplant specialists for all three organs. If one is not suitable for the patient, the other organs need to be declined," said [Kristin Mekeel, MD](#), chief of the division of transplant and hepatobiliary surgery at UC San Diego Health.

"Once the organs are accepted for transplant, there is a carefully choreographed sequence of operations, starting with the procurement of organs from the donor."

This is the first triple organ transplant in the nation from a donor after circulatory death (DCD). This approach involves retrieving organs from hospitalized donors who have died because their heart has stopped. Historically, these organs could not be used for transplantation due to damage sustained during the dying process.

Innovation in organ preservation now allows the donated organs to be machine perfused with blood, utilizing a technique known as Thorco-abdominal Normothermic Regional Perfusion (ta-NRP). The machine recovers the organ function and allows for assessment and transplantation. The technique has significantly increased donor organ availability.

"We are the only program on the West Coast to offer this type of procurement from DCD donors," said [Victor Pretorius, MBChB](#), surgical director of cardiac transplant and mechanical circulatory support at UC San Diego Health.

"This donor provided seven organs for transplantation. Three went to Anthony. Organ donation is the ultimate gift of life and selflessness. Our teams have deep gratitude for the donors. They are on the forefront of our minds and hearts in all we do."

On Valentine's Day, Donatelli was taken into surgery.

"It was a lot to process in a short amount of time, but I just kept thinking of my family. I knew this was the only way I would be able to watch my children grow up."

During the triple organ transplant, the heart transplant was performed first by the heart transplant team, led by Pretorius and Mark Kearns, MD, cardiothoracic surgeon at UC San Diego Health. The donor liver and kidney remained on perfusion pumps to preserve their function. The liver transplant was completed immediately after the heart transplant by [Gabriel Schnickel, MD](#), surgical director of liver transplantation at UC San Diego Health.

"Since the kidney can remain safely on the perfusion pump for up to 36 hours, Anthony was taken to the intensive care unit to recover from the heart and liver transplants. He returned to the operating room the next day for the kidney transplant to complete the entirety of the procedure," said Schnickel.

The recovery process after an organ transplant is intensive. Following the triple organ transplant, it was incredibly challenging for Donatelli.

"I woke up so weak, but relieved it all went well."

He was discharged nearly two months after his transplant surgeries. He is now focusing on gaining strength on many levels. He is going through the rehabilitation process, including sessions at [The Step Family Cardiovascular Rehabilitation Wellness Center](#) at UC San Diego Health. He is also getting back to yoga, swimming and surfing, as well as planning to go back to school. A once unknown future, he is now planning for his life ahead.

"It has been a physical, mental and spiritual process. It has been a humbling experience and there have been some really hard days, but each day gets better. I am learning to trust my body again and training for a Spartan race happening next spring. I have come a long way," said Donatelli.

"None of this would be possible without the donor. I think of their generous act every day and will continue to honor my donor's organs by working hard to be in the best shape and health possible."

Donatelli will continue to be monitored carefully to ensure his donated organs remain functional and his AL amyloidosis in remission.

"As the only academic medical center in San Diego County, we can offer patients like Anthony therapies they are not available elsewhere. We can treat the most complex presentations of rare diseases," said Urey. "We have the privilege of offering patients a second chance at life."