

Package: Heart-in-a-box

By Marty Velasco Hames

Heart Transplant Innovation: Breakthrough technology known as “heart-in-a-box” is giving hope to thousands of people in need of heart transplants. Traditionally, donor hearts were retrieved from patients who were declared brain dead, but their heart remained beating. “Heart-in-a-box” allows for donation after circulatory death (DCD), where the heart has stopped beating. The new system is expected to widen the donor pool, thus getting more donor hearts to more recipients. Mayo Clinic teams have performed heart transplants using the new perfusion system in Florida, Minnesota, and Arizona.

This first person to undergo a “heart-in-a-box” transplant in Arizona says it saved his life. Two months after the surgery, he and his wife are celebrating their 50-year wedding anniversary, and his new lease on life.

February 13, 2023

| Video          | Audio  |
|----------------|--|
| Jeff Robinson  | (SOT)<br>We basically went on a date, blind date, blind date, when I was 17 I think.   |
|                | (TRACK)<br>Trish and Jeff Robinson met when they were in high school.  |
| Trish Robinson | (SOT)<br>When I met him, I just, you just get that feeling of oh my gosh, he’s the one.  |
|                | (Track)<br>Soon after, they married, and began building a life together. Then came the unexpected news, when Jeff went to the doctor.  |
|                | (SOT)<br>And he asked me, how long have you had a heart problem? And I told him I didn’t have a heart problem. and he goes yeah you do.  |
|                | (TRACK)<br>Jeff was diagnosed with congestive heart failure. After numerous surgeries, doctors told Jeff he had less than two years to live, unless he got a heart transplant. And that, can take years. But doctors at the Mayo Clinic in Arizona had another solution using new transplant |

|  |  |
|--|--|
|  | technology called the Organ Care System, or “heart-in-a-box.”  |
| Brian Hardaway, M.D.<br>Cardiovascular Medicine                  | (SOT)<br>Well, this technology is going to give patients the ability potentially to get transplanted faster, we’re going to be able to go out to further distances to retrieve organs from donors and bring them back in a safe fashion, so it’s incredible.   |
|  | (TRACK)<br>It works like this...traditionally when a heart is donated, it’s placed in a cooler for transport. Doctors only have about four hours to get the heart to the recipient. With this new technology, a donated heart is resuscitated and placed in this box, which keeps it alive and beating in a human-like state. This increases the window of transport to 12 hours, allowing doctors to get more hearts to more patients, like Jeff, who became the first person in Arizona to undergo a “heart-in-a-box” transplant, and the Mayo Clinic team would be the first in Arizona to do it. |
| Patrick DeValeria, M.D.<br>Cardiovascular Surgery<br>Mayo Clinic | (SOT)<br>Everybody just was very amazed to see this device working. And even when we brought the heart back to the operating room they brought the heart into the operating room at Mayo, and rolled it into the operating room, and we were doing our final evaluation of the heart, people were coming over and looking at it, and these are people that have been in medicine for 20 years and they were all just marveling that we had this opportunity to do this for this patient.   |
|  | (TRACK)<br>Two months after surgery, Dr. Brian Hardaway said Jeff was progressing well.  |
|  | (SOT)<br>He’s doing well. He’s having the anticipated post-transplant course, in good spirits, getting around OK, things are looking good.   |
|  | (SOT)<br>I’m elated, it’s awesome, it’s a second chance, and I just have to thank them from the bottom of my new heart.  |

(Track)

For the Mayo Clinic News Network, I'm Marty Velasco Hames.