

A Valve Inside a Valve



A new heart valve that can be implanted inside an existing valve will help adults with congenital heart disease avoid open heart surgeries. (Credit: Newswise)

A New Heart Valve Can Be Implanted in People Suffering with Adult Congenital Heart Disease Without Open Heart Surgery

Many adult congenital heart patients have undergone multiple heart surgeries by the time they reach their 20s. Each time surgeons operate on the heart, the risk of complications increases. A new valve recently approved by the Food and Drug Administration, now gives these patients a new way to manage their disease without having to undergo open heart surgery.

Many adults with congenital heart disease are born with a malformation of the pulmonary valve, which sits between the heart and lungs. Most have undergone open heart surgery during childhood to restore blood flow to the lungs, and often require a second and third open heart surgery to replace this valve. Because of advancements in heart surgery over the past 50 years, more and more of these patients are making it to the adulthood for the first time in history.

The new Melody Transcatheter Pulmonary Valve, which is delivered through a catheter and requires only a small incision, is a new technique that is bringing new hope to these patients.

The first Melody Valve at Methodist DeBakey Heart & Vascular Center in Houston was recently implanted by Dr. C. Huie Lin, an adult congenital heart disease specialist, in a young man who had already had three open heart surgeries for congenital heart disease.

"More than a million people live with adult congenital heart disease in the U.S., and we expect that number to grow by 5 percent each year," Lin said. "I believe this new Melody Valve is a great new option for people who were no longer candidates for surgery."

Lin said the Melody Valve helps patients who have already had an open heart surgery for congenital heart disease and have developed problems with the valve leaking or becoming blocked.

The valve, made for the right side of the heart, is designed to be implanted inside of the existing valve. Made from the internal jugular vein of a cow, the valve is sewn onto a stent and the stent is then put onto a balloon catheter. The catheter is then placed through the femoral vein and advanced to the pulmonary valve position. The balloon then expands and deploys the valve.

"Because it's implanted inside of an existing valve, a new Melody valve can also be implanted in an existing Melody valve if it's not working properly," Lin said. "It's a revolutionary technique."

Lin says many adults with congenital heart disease are operated on at a very young age and some, for one reason or another, are unaware of their condition until they begin to experience shortness of breath, lightheadedness, palpitations or swelling as adults. He adds that it's important for these patients to see an adult congenital heart specialist before these signs and symptoms occur so they can maintain an active lifestyle and great quality of life.

Source: [Newswise](#)

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