

New heart-valve operation state's first

Scottsdale Healthcare Osborn team performs procedure

By Sonja Haller

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Scottsdale Healthcare Osborn Medical Center was the first hospital in the state to perform a new, life-saving heart procedure, and a Scottsdale man was the first patient.

Bill Ruser, 84, is starting to build up to his mile-a-day walk after his Dec. 22 surgery to replace a heart valve.

Ruser is Arizona's first patient to undergo transcatheter aortic valve replacement, which gives people who formerly were too sick or too frail to undergo open-chest surgery a chance to extend their life.

The procedure, already practiced in Canada and Europe, involves inserting a catheter through the femoral artery in the groin to push the new valve in place. Elsewhere in the Valley, Banner Good Samaritan Medical Center and Banner Heart Hospital hope to offer the procedure within the next few months.

Ruser felt as if he had won the lottery. "It's just amazing," he said. "There's no pain. And I'm a hypochondriac who hates pain."

Ruser was released from the hospital on Christmas Day. Hospital release days for open-heart surgery range from five to 14 days.

Typically, patients who need a heart-valve replacement undergo open-heart surgery, the only option until now. But about one in three patients is not a candidate because of age or other ailments that would make surgery, anesthesia and recovery too difficult, if not fatal.

To qualify for the procedure, cardiac patients must have first been turned down by medical professionals for tradi-



Bill Ruser, 84, is the first person in Arizona to undergo transcatheter aortic valve replacement. It occurred Dec. 22.

tional open-heart surgery.

More than 5 million Americans are diagnosed with heart-valve disease each year.

"This disease mostly affects older people and we're excited that this technology will allow us to treat this new cardiac group we've never been able to treat before," said Maulik Shah, one of Ruser's surgeons.

After experiencing shortness of breath six months ago, Ruser learned that his heart-valve opening was pin size, instead of quarter size. If not treated for heart-valve disease after the onset of symptoms, 50 percent of patients will not survive more than an average of two years, studies show. The heart must work harder to pump when the valves are closed off and can give out, said Robert Riley, chairman of cardiovascular surgery at Scottsdale Healthcare.

Scottsdale Healthcare doctors received their training on the new procedure at St. Paul's Hospital in Vancouver, British Columbia, which has performed about 1,000 procedures since 2005.



Surgeons Bob Riley and Maulik Shaw (right) talk about the new heart-valve replacement procedure in the state-of-the-art operating room at Scottsdale Healthcare Osborn Medical Center. Ruser (seated) was their first patient. PHOTOS BY CHARLIE LEIGHT/THE REPUBLIC

John Webb, St. Paul's interventional cardiologist, called the procedure a huge development in heart health and patient longevity.

"These are patients who were having trouble breathing and were admitted more and more frequently to the hospital. They show significant improvement," Webb said from Canada. "Studies have shown that after only one year of the procedure, there is a 20 percent reduction in the death rate."

The procedure received Food and Drug Administration approval in November. That month, Scottsdale Healthcare Osborn opened a \$3 million operating room. The 800-square-foot facility is equipped with high-tech machines and

visual monitors that provide a 3-D look at patients without ever moving them.

A medical team of about 25 people performed or assisted in Ruser's three-hour surgery. Eventually, the procedure time should be cut to 90 minutes.

During the procedure, the Sapien Transcatheter Heart Valve, which is made of cow tissue and polyester supported with a stainless-steel mesh frame, is compressed into the end of a thin tube-like catheter. That catheter is inserted into the femoral or groin artery through a small cut in the leg and threaded up through the chest to the diseased valve. The heart valve is released from the catheter and expanded with a balloon and immediately becomes functional.