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TRANSCATHETER AORTIC VALVE REPLACEMENT

Home > Health Hub > Health Library > Transcatheter Aortic Val...

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What is transcatheter aortic valve replacement?

What is severe aortic stenosis?

Who is eligible for TAVR?

TAVR approaches

After the procedure

Follow-up care

Preventive antibiotics

FAQs

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Transcatheter Aortic Valve Replacement

What is transcatheter aortic valve replacement?

Transcatheter aortic valve replacement (TAVR) is a treatment option for some patients with severe aortic stenosis who are too ill to have traditional, open-heart surgery to replace the aortic valve.

What is severe aortic stenosis?

Stenosis means narrowing. When you have severe aortic stenosis, it means your aortic valve opening has become too narrow to let enough blood flow from your heart to the aorta and then out to the rest of your body. The condition can be congenital (present at birth) or related to age, calcium build-up, rheumatic fever or radiation therapy. When the valve opening is narrowed, the heart works harder to pump blood. This can eventually lead to heart failure. If untreated, severe aortic stenosis can lead to death.

Who is eligible for TAVR?

Not all patients are able to have a TAVR procedure. If you are interested in the procedure, talk to your doctor. All interested patients must have an extensive evaluation to see if TAVR is a good treatment option.

Preparing For The Procedure

Once you are scheduled for TAVR, you will have an appointment for additional testing. You will also receive detailed information about the procedure and the type of anesthesia that will be used (general or conscious sedation).



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About The Procedure

The procedure itself takes 3 to 4 hours. During that time, you will have a pacing wire in your heart to let the doctor control your heart rate while the valve is put in place. The wire may still be in place afterwards.

Your aortic valve will be replaced with a valve made from animal tissue (biological). The tissue is supported with a stainless steel frame and covered with fabric.

The new valve is put in place using a catheter.

This is a long thin tube that is guided to the diseased aortic valve. The valve is sent through the catheter and then secured in place. Once the valve is in place, your doctor will make sure it is working. Then, the catheter is removed and your incision will be closed.

TAVR approaches

There are several ways to implant the new valve. Your doctor will decide which approach is the best for you and may talk to you before your procedure about approaches other than those included in this handout.

Transfemoral Approach

If a transfemoral approach is used, the doctor will make a small incision in your groin and place a catheter in the femoral artery.

The doctor uses a dye and a specialized X-ray (fluoroscopy) to guide the new valve through the catheter to the diseased valve.

Transapical Approach

The transapical approach may be used in patients with peripheral artery disease. Because of the disease, the arteries may not be big enough to use the transfemoral approach. Instead, a 4-inch incision is made between the ribs. The new valve is inserted through the incision and placed directly inside the diseased aortic valve.

The doctor uses a dye and a specialized X-ray (fluoroscopy) to guide the new valve to the diseased valve.

Direct Aortic Approach

The direct aortic approach involves a J-shaped incision at the top of the sternum (breastbone). The catheter is guided into the aorta and the valve is put in place.

Subclavian Approach

The subclavian approach involves inserting a catheter into the subclavian artery, near your shoulder. The new valve is guided through the artery into the aorta and put in place. This procedure may be done with general anesthesia or local anesthesia and a sedative.

After the procedure

After the TAVR procedure, you will be moved to the intensive care unit (ICU). There, you will be closely monitored around the clock. You will likely be moved to a step-down unit the next day. Plan to stay in the hospital for about 2 to 3 days after the procedure. If you have a chest incision, your stay in the hospital will be longer (approximately 5–7 days), including a longer stay in the ICU. You will also have a chest tube.

Once your doctor says it is okay, you will be encouraged to move and walk. You will also use an incentive spirometer to do breathing exercises. These exercises help you recover.

As you recover, the symptoms caused by your aortic valve disease should get better. You may be able to stay active longer than you did before the procedure.

Before you leave the hospital, your healthcare team will help arrange in-home or facility care needs, if needed. At any time during your hospital stay, please ask any questions you may have about your condition, procedure or care.

Follow-up care

It is very important to make sure you follow-up with your doctor after the TAVR procedure. You will need to see your cardiologist and have an echo within one month of the procedure. You will need another appointment with your cardiologist 6 months after the procedure, then again at 1 year after receiving your new valve (or sooner, depending on your cardiologist's recommendation).

Preventive antibiotics

It will be important for you to take an antibiotic before you have certain procedures, such as surgery, invasive procedures, and some dental work. This is called a prophylactic, or preventive, antibiotic. Taking the antibiotic protects your valve from a potentially deadly infection. Talk to your doctor about the need for preventive antibiotics and the risks of infection.

FAQs

Will Insurance Pay For TAVR?

Our financial coordinators will work with your insurance carrier to get pre-authorization for your evaluation testing appointments and the TAVR

procedure. We will let you know before you go to any appointments if there are any problems with your insurance coverage.

How Will I Feel After The TAVR Procedure?

You will have some pain/discomfort at the incision site(s). Your nurse will keep track of your pain and help you get comfortable. You may still have some symptoms after the procedure. It may take a little time for symptoms to improve and disappear due to other medical problems you may have. Most patients have a better quality of life by their 30-day follow-up appointment and still better at their 6-month follow-up.

Will I Need To Take A Blood Thinner After The TAVR Procedure?

Yes. After the procedure, you will need to take Plavix® (clopidogrel) for 6 months. You will also need to take an aspirin each day for the rest of your life. Please let your cardiologist know if you cannot take these medications or if you have recently had problems with bleeding.

How Long Will The New Valve Last?

The transcatheter heart valve is designed to work like a normal valve. There is no current information available about how long it will last. Your valve will be checked at each follow-up visit using an ultrasound.

Can I Have Magnetic Resonance Imaging (MRI) After I Have The TAVR Procedure?

Your new valve is surrounded by a metal stent. After your TAVR procedure, you will receive a pocket ID card that has information about your valve. Please carry this card with you at all times and show it to your doctor, nurse or radiology technician before you have an MRI.

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