

TRANSCATHETER AORTIC VALVE REPLACEMENT (TAVR)



Patient Guide

A personalized education guide for patients, from the UAB Medicine Structural Heart & Valve Program

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This booklet belongs to: _____

Please call _____ if found.

INTRODUCTION



WELCOME TO UAB HOSPITAL IN BIRMINGHAM, ALA.

The purpose of this booklet is to provide you and your family with information on aortic stenosis and transcatheter valve replacement therapy (TAVR).

It includes details about aortic stenosis, including its symptoms and treatment. It also explains how we will care for you during your TAVR procedure and how to care for yourself once you return home. You will need this booklet throughout this process, so keep it handy.

Your doctors, advanced practice providers, nurses, and other members of the care team will discuss much of the information in this booklet with you. Please feel free to ask questions and express any concerns.

WHAT IS AORTIC STENOSIS?

Aortic stenosis is a narrowing of the aortic valve, the valve that allows blood to flow from the heart's lower left chamber into the aorta and to the entire body. This causes pressure to build up in the left lower chamber of the heart, thickening the heart muscle. Eventually, this increased pressure can cause heart failure and other medical problems.

WHAT CAUSES AORTIC STENOSIS?

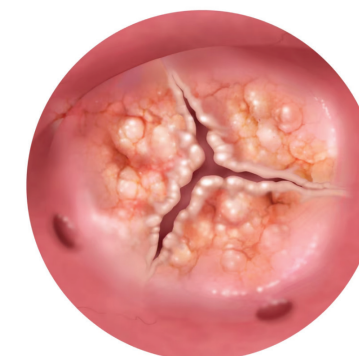
- **Aging:** buildup of cholesterol and/or calcium mineral deposits over the years
- **Bicuspid valve:** two leaflets instead of three
- **Rheumatic disease:** a history of rheumatic fever
- **Radiation:** history of radiation of the chest

WHAT ARE THE SYMPTOMS OF AORTIC STENOSIS?

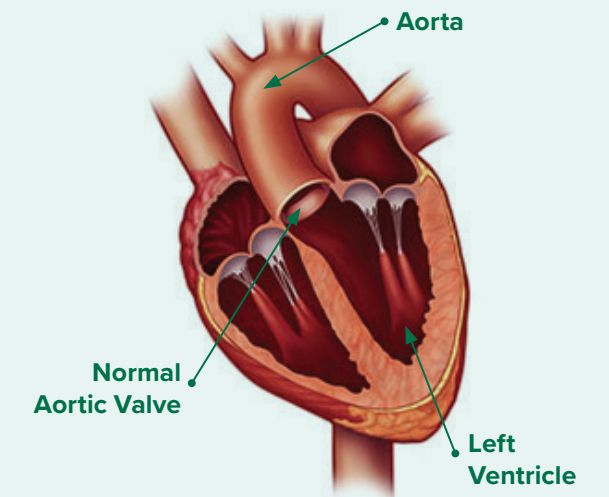
- Shortness of breath
- Fatigue (tiredness)
- Dizziness
- Syncope or pre-syncope (fainting spells)
- Chest pain/tightness
- Swelling in the feet or ankles
- Heart palpitations or irregular heartbeat (arrhythmia)



In a healthy aortic valve, three thin leaflets open and close properly.

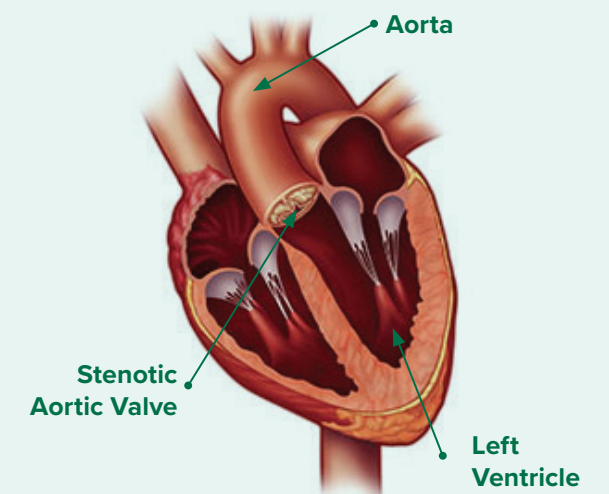


In a diseased (stenotic) valve, the leaflets become stiff and thickened, limiting the amount of blood pumped out to the body.



NORMAL VALVE

The leaflets or “flaps” in a normal, healthy aortic heart valve open wide enough to allow blood to flow easily from the valve into the aorta, where it is pumped out to the rest of the body.



STENOTIC VALVE

The leaflets or “flaps” in a stenotic or calcified aortic heart valve have become so narrow that blood no longer moves easily from the left ventricle into the aorta. This reduced blood flow also means that the body gets less oxygen, which may cause symptoms such as shortness of breath.

TREATMENT OPTIONS



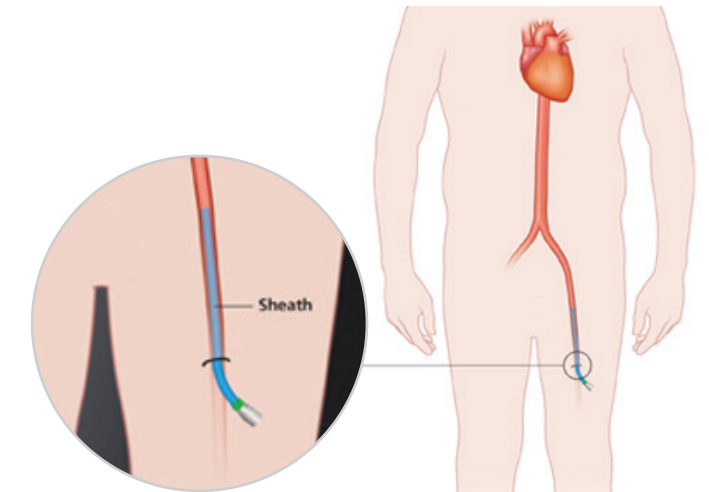
- **Surgical aortic valve replacement (SAVR)**
- **Transcatheter aortic valve replacement (TAVR)**
- **Balloon aortic valvuloplasty (BAV):** a balloon is inflated to temporarily open the aortic valve, providing a bridge to SAVR or TAVR

TAVR APPROACHES

Two different approaches may be used for TAVR. Your CT scan will assist your physicians in choosing the right approach for you. The two approaches are transfemoral and alternative access, commonly known as suprasternal.

- **Transfemoral approach**

The transfemoral approach is most commonly used if the arteries going to your legs are large enough. This approach allows the valve to be inserted through an incision in the groin without requiring an incision in the chest.



- **Alternative access, known as suprasternal**

Alternative access is reserved for patients in whom transfemoral access is not feasible. For example when the arteries going to your legs are not large enough, or when the risk of vascular complication was deemed high. This approach allows the valve to be inserted through a small 1-2 inch incision in the upper chest.

TAVR EVALUATION DAY

Our goal is to complete as much of your initial testing as possible in a one-day evaluation, to reduce the number of visits you need to make to UAB. Your initial evaluation is one of multiple steps that may take most of the day to complete.

EVALUATION STEPS:

- **Echocardiogram:** An echocardiogram (echo) is to determine the severity of your aortic stenosis and the overall function of your heart.
- **Standard testing:** Lab work, EKG, pulmonary function test (PFT), and a frailty test will provide valuable information about your health and help determine whether TAVR is right for you.
- **Discussions with an interventional cardiologist and a cardiovascular surgeon:** All potential TAVR candidates are evaluated using a “heart team approach.” This means that the cardiologist and the surgeon will work together to decide if the TAVR procedure is right for you.
- **TAVR CT scan:** This particular CT scan will help determine what size valve is needed and which approach (either transfemoral or alternative access) is most appropriate for your procedure.
- **Left heart catheterization:** if you have not had a coronary angiogram (commonly known as a left heart catheterization) within the past 1-2 years, one will be performed prior to your procedure.



HOSPITALIZATION AND PROCEDURE



WHAT SHOULD I EXPECT DURING MY HOSPITAL STAY?

We are here to take care of you when you have your procedure. This section will guide you through the preparation, procedure, and recovery process. Your nurse also will be happy to answer any questions you may have. We start making plans for your discharge to home as soon as you are admitted, starting with questions about your support system at home.

Most of our patients are able to go home with their families caring for them, but some patients may need the help of a home health care agency or a referral to a rehabilitation center. If you believe you may need one of these services, we will discuss this with you and your family prior to discharge and include the social worker and care manager.

PRIOR TO YOUR PROCEDURE

- When your RN clinical care coordinator calls to schedule your TAVR, you also will be scheduled for an appointment in the Preoperative Assessment, Consultation & Treatment (PACT) Clinic located at The Kirklin Clinic of UAB Hospital.
- You will have lab work drawn that is related to your procedure.
- You will have an assessment completed by the anesthesiology staff.
- You will be given educational materials explaining how to prepare for your procedure.

THE DAY OF YOUR TAVR

PARKING AND ARRIVAL

- Your procedure will be performed at UAB Hospital.
- Park in the 4th Avenue parking deck at 401 18th St. S., Birmingham, AL 35233
- Your RN coordinator will let you know your arrival time at the time of scheduling.
- Check in at the UAB Heart and Vascular Center on the 6th floor of the North Pavilion.

PRE-PROCEDURE

- After you register, you will be taken back to get ready for your TAVR. This includes:
 - Placing your IV
 - Taking your vital signs
 - Admission questions
- An advanced practice provider (APP) and/or a physician will speak with you about the procedure and have you sign a consent form.
- Once the heart team is ready, you will be taken to the procedure room.
- At least one family member should stay in the waiting room at all times. We recommend notifying the front desk if you need to leave for any reason.
- An electronic status board located in the waiting room will keep your family informed of your progress.

POST-PROCEDURE

- After your TAVR, you will be taken to the recovery room, where you will be monitored for several hours. You may eat after you have been cleared by the anesthesia team.
- When your post-op recovery is complete, you will be able to go to a private room. This is when your family can join you.
- Most patients go home the next day.
- You will have an echocardiogram prior to discharge.
- Expect a phone call from a nurse in our clinic to check on you one week after your procedure. You will be seen in the clinic by your TAVR team one month after your procedure to receive a repeat echocardiogram test, an EKG, and lab work.

AFTER DISCHARGE

BLOOD-THINNERS

- Most patients are prescribed blood-thinning medications after their TAVR procedure.
- If you need to stop any blood-thinning medication for any reason during the first six months, please contact your RN clinical care coordinator.

DENTAL PROCEDURES

- Wait at least three months after your procedure before undergoing any dental or surgical procedures. This includes dental cleanings. Inform every doctor or dentist who takes care of you that you recently had a heart procedure. You will need to take antibiotics before you have a dental procedure or certain types of surgery.

WHAT TO EXPECT AT HOME

- Do not drive for one week after your procedure.
- Do not lift anything heavier than 10 pounds for one week after leaving the hospital.
- After your access site is closed and has healed, you can shower and bathe freely. This usually takes 1-2 weeks. Until then, you cannot go underwater, especially not in a lake or pool.
- Stay active and walk often.
- You can expect a call from cardiac rehab. We strongly encourage our patients to attend and complete cardiac rehab sessions, which research shows can improve your results.
- Some patients will develop an abnormal heart rhythm (arrhythmia) after valve procedures, so you may go home with a heart monitor.

CALL US IF YOU EXPERIENCE

- Fever/chills
- Increased swelling
- Increased redness, tenderness, or drainage at the incision/access sites
- If you go to an emergency room at UAB Medicine or elsewhere for any reason.

FOLLOW-UP CARE

You will need to come back to UAB for follow-up visits at one month and one year after your TAVR procedure. These visits to the Valve Clinic are important for making sure your valve is functioning properly.

After your one-month follow-up visit, you will contact your primary cardiologist if you have any cardiac concerns.



CARDIOVASCULAR INSTITUTE

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uabmedicine.org/heart