



Aortic Stenosis & Transcatheter Aortic Valve Replacement (TAVR)

What is Severe Aortic Stenosis?

Aortic stenosis is often caused by the build-up of calcium deposits on the aortic valve's leaflets (flaps of tissue that open and close to regulate the one-way flow of blood through the aortic valve). This build-up of calcium on the leaflets impairs the aortic valve's ability to fully open and close. As a result, the narrowed valve allows less oxygen-rich blood to flow from the lungs to the brain and rest of the body, which may cause symptoms like severe shortness of breath and extreme fatigue. Eventually, the heart's muscles weaken, increasing the patient's risk of heart failure and death.

What is Transcatheter Aortic Valve Replacement (TAVR)?

This is a less invasive procedure that allows a new aortic valve to be inserted within your diseased aortic valve without opening your chest, while your heart is still beating. TAVR is a state-of-the-art alternative to open-heart surgery. It is minimally invasive, requires less recovery time and is less painful.

Who is a Candidate for TAVR?

To be a candidate, two cardiac surgeons must determine that you are too high risk or too sick to undergo open-heart surgery.

What is the Evaluation?

You will undergo a comprehensive evaluation to determine whether TAVR is an appropriate therapeutic option. The following is a list of tests and appointments you can expect to have:

- **Echocardiogram/Ultrasound (Echo):** a test that uses sound waves to create pictures of the heart. The picture is more detailed than a standard x-ray image. An echocardiogram does not expose you to radiation.
- **Heart Catheterization/Angiogram:** a long, thin, flexible tube, called a catheter, is put into a blood vessel in your arm or groin (upper thigh) and threaded to your heart. A special dye is used to take x-ray pictures of your heart. The dye will make your coronary (heart) arteries visible to look for any blockages. Also your doctors will get more information on your heart valves.
- **CT Scan of Your Heart & Leg Blood Vessels:** uses X-rays to make detailed pictures of your heart and blood vessels from your chest to the middle of your legs. The CT scan will allow your doctors to determine the size of aortic valve you will need and if the valve can be delivered through the blood vessels in your legs.
- **Pulmonary Function Testing:** tests that measure how well the lungs take in and release air and how well they move oxygen from the atmosphere into the body's circulation.

We will coordinate as many of your tests and appointments on the same day as possible.