This procedure is done to replace the aortic valve in a less invasive way than other types of open heart surgery, which means less incisions and easier recovery. This is also known as a transcatheter aortic valve implantation or TAVI. You need to have some tests for screening to be sure you are able to have this procedure. These tests are described in the next sections.

During this procedure, a catheter is placed in a blood vessel in your upper leg and guided through your heart to the aortic valve. A balloon on the end of the catheter is inflated to stretch the valve open. A new valve is then guided over the catheter to replace the old aortic valve.

How the procedure is done

Your doctor will talk to you about the procedure and explain the risks and benefits. You will be asked to sign a consent form.

This procedure is done in the Cardiac Catheterization Lab and will take 2 to 3 hours.

- You will be given medicine to make you sleepy, but you will not be completely asleep during the procedure.
- A temporary pacemaker will be placed. This will be removed right after or within 48 hours of the procedure.
- A special IV, called an arterial line, is placed to measure pressure in your heart during and after the procedure.
The site used may be your upper leg or groin, or your chest near the breast bone. A puncture site is made to make an opening in the artery.

A thin tube, called a catheter, is guided into the artery to the heart and to the aortic valve.

A balloon on the end of the catheter is expanded in the aortic valve to open the valve. This makes room for the placement of the new aortic valve. The new artificial valve is guided over the catheter and into the aortic valve.

The new valve is opened in the heart inside the old valve and it starts to work. The catheter is removed, and the puncture site is closed and covered with a dressing.

After the procedure

- You will be moved to the recovery room and closely checked. After a few hours, you will be moved to your room. Your heart rate, blood pressure, and breathing will be watched.
- You will be helped to get up within the first day after the procedure.
- Expect to stay in the hospital for 1 to 3 days after the new valve is placed.

Your care at home

- You will be taught how to care for the site where the catheter was put in.
- Take all of the medicines your doctor has ordered.
- You will need to have follow up care with your doctor here at Ohio State Wexner Medical Center at 30 days and 1 year after the procedure to check that the valve is working. Be sure to keep these appointments.
- Tell your dentist and all of your doctors that you have had a heart valve replaced. This is because you will need to take antibiotics to reduce the risk of infection before any dental or medical procedures are done.
- If you are scheduled for a magnetic resonance imaging scan or MRI, be sure the staff knows that you have a heart valve replacement and that it is safe to have an MRI.