



What is TAVI?

This minimally invasive surgical procedure repairs the valve without removing the old, damaged valve. Instead, it wedges a replacement valve into the aortic valve's place. The surgery may be called a Transcatheter aortic valve replacement (TAVR) or Transcatheter aortic valve implantation (TAVI).

Why would I need a TAVI?

A TAVI procedure may be suggested if you have a problem with your aortic valve and you're considered high risk for open heart surgery. Your aortic valve is one of four main valves in your heart. As your heart beats, it opens and closes allowing blood to pump and flow around the rest of your body.

As you age, calcium can build up on the valve, making it harder and thicker. As a result, your aortic valve is unable to open properly, forcing the heart to work harder to pump blood through the narrowed valve. This is a condition called aortic stenosis. A TAVI procedure helps to repair your valve, which can alleviate the symptoms of Aortic stenosis including breathlessness, chest pain, fatigue and dizziness.

How do I prepare for a TAVI?

As this procedure is undertaken in hospital you will need to complete your hospital admission paperwork, which the Nepean Cardiology staff will provide to you, then return to the admitting hospital at least three days prior to your admission date.

You will be admitted the afternoon before your TAVI procedure, this is to allow the anesthetist and the geriatrician to see you. You will also be required to stay 2 nights following your procedure for monitoring so please pack a bag accordingly.

What should I expect on the day of my TAVI?

The procedure is performed in a "hybrid theatre" with advanced imaging technology.

- The area of incision is numbed, and either a local anaesthetic with sedation or a general anaesthetic is given. This will be discussed with you prior to your procedure
- A balloon catheter is inserted into an artery in either your groin or underneath your collarbone
- The balloon catheter is guided into your heart and positioned within the opening of the aortic valve
- The doctor gently inflates the balloon to open up the valve
- The doctor implants a new aortic valve using a metal mesh tube which keeps the valve in place - the new valve either expands by itself or is expanded using the balloon, depending on the type of valve used
- The new valve is positioned to push aside your damaged aortic valve
- The balloon is deflated and your doctor removes the balloon catheter



Are there any risks?

A TAVI is a minimally invasive procedure, which means it is performed through many small incisions - or cuts - instead of one large one. However, as with any procedure, there are some risks associated with a TAVI .Risks can include:

- Bleeding or vascular injury
- Abnormal heart rhythms (arrhythmias) – sometimes requiring pacemaker
- Obstructed coronary artery
- Aortic regurgitation
- Kidney impairment
- Stroke
- Death from this procedure is rare