

# TAVR procedure and its benefits

**BENEFITS OF TAVI / TAVR**

- Uses Latest Technology
- Faster Recovery
- Non Surgical
- Shorter Hospital Stay
- Improvement in Heart Function
- No Chest Scars
- Better Quality of Life
- Lesser Pain and Anxiety

## Longest follow-up in the world of TAVI vs Surgical Valves

280

Mean age 79 years, 80% STS-PROM <4%

**Outcome: All cause mortality, stroke MI**

Lower-risk patients with severe aortic stenosis (AS), largest trial, and longest follow-up.

At 10 years, the structural valve deterioration was lesser with TAVI valve as compared to the Surgical valve. In lower-risk patients with severe AS, the risk of major clinical outcomes were similar.

Source : acc.org

### NOTION trial - 10 years

TAVI	vs.	SAVR
62.7%	All-cause mortality	64.0%
9.7%	Stroke	16.4%
Structural Valve Deterioration		
15.4%	Moderate-Severe	20.8%
1.5%	Severe	10.0%

## In matters of the heart, skills & experience matter & so does compassion

Huge thanks to the incredible team at Valve Clinic / Symbiosis Hospital for the exceptional care during my father's recent TAVI surgery.

Mehervilas Babde

★★★★★

Excellent treatment and very supportive staff. I had done a Tavi procedure for my dad at age 70. It was very smoothly done by TVC.

Khatib Khan

★★★★★

Happy with: doctor's friendliness way of treatment is different and systematic, so i recommend TVC if you are facing any cardiac issue.

Anant Ayare

★★★★★

Blessed to have TVC and team at Symbiosis Multispeciality for my mother's recent TAVI procedure.

Christine

★★★★★

Best team of cardiologists i have ever seen. Also the explanation which he gives to the patient is easily understood and always provides proper explanation related to the problem faced by the patient.

Mangesh Birje

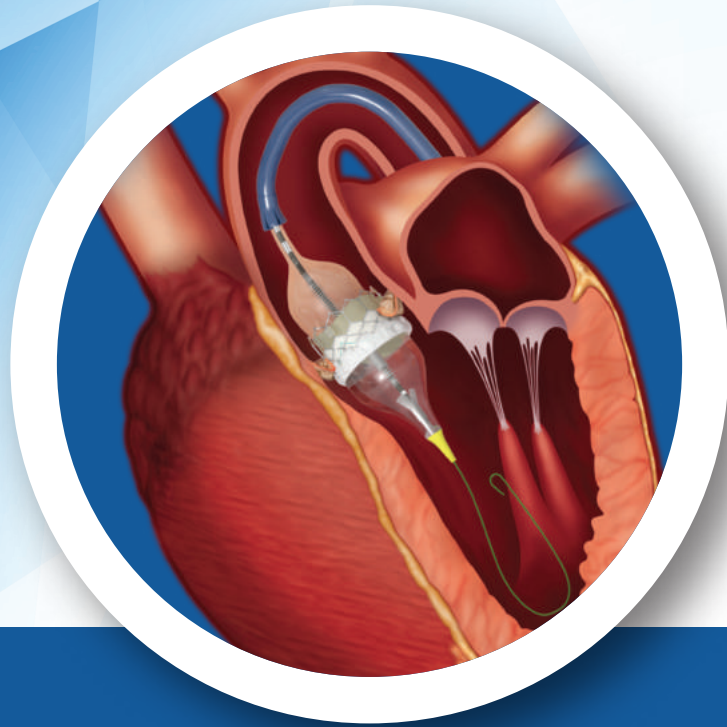
★★★★★

Consulted TVC at Symbiosis Hospital for my father's heart valve issue. Advised TAVI procedure, and explained details politely. The procedure was successful, and my father's health was good.

Rohan Joshi

★★★★★

For more information on TAVI, TAVR and MitraClip, E-mail at [thevalveclinic@gmail.com](mailto:thevalveclinic@gmail.com) or Call +91-8828473147



## Welcome to Team TVC

The most experienced team in the city performing all types of structural interventions

- Trans Aortic Valve Implantation (TAVI)
- Trans Aortic Valve Replacement (TAVR)
- MitraClip
- Transcatheter Edge-to-Edge Repair (TEER)

- Device Closures:**

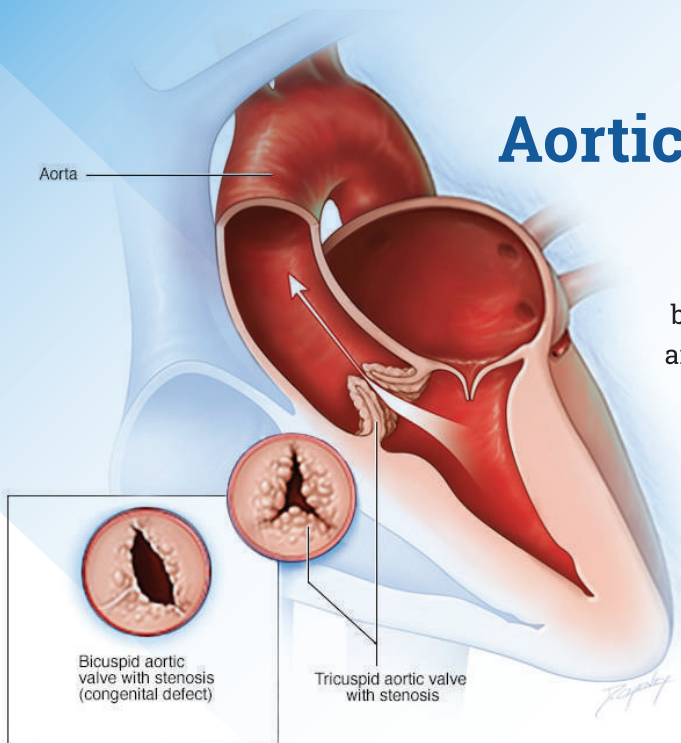
  - Paravalvular device closure
  - Rupture of sinus of valsalva
  - Atrial septal defect closure
  - Patent foramen ovale closure
- Balloon Procedures:**

  - Mitral valvotomy procedure
  - Tricuspid valvotomy



## What is Aortic Stenosis?

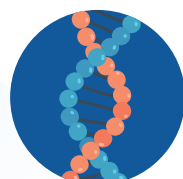
Aortic stenosis is a narrowing of the valve between the left ventricle and the aorta, often due to calcium build-up. This restricts blood flow, leading to symptoms like chest pain and shortness of breath.



### • CAUSES OF AORTIC VALVE STENOSIS •



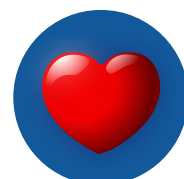
Age



Genetic Predisposition



Calcium Build-Up



Rheumatic Heart Disease

## What is TAVR?

TAVR (Transcatheter Aortic Valve Replacement), also known as TAVI (Transcatheter Aortic Valve Implantation), is a minimally invasive procedure used to replace a damaged aortic valve. During the procedure, a new valve is inserted through a catheter, typically placed in the groin or chest, and guided to the heart. Once in position, the new valve is expanded, pushing the old valve leaflets aside and taking over the job of regulating blood flow.

TAVR is often used in patients who are considered high risk for traditional open-heart surgery.

### Proven Safety & Efficacy of TAVI / TAVR

Lesser Strokes / TIA post-procedure • Lesser permanent pacemaker required after procedure • Faster recovery to active routine life  
• Better quality of life

## Types of TAVI Valves :

### Balloon-expandable Valve



### Self-expanding Valve



## Types of Surgical Valves :

There are two different types of surgical valves:

- **Mechanical (man-made material)**
- **Biological (animal or human tissue)**

Biological valves get degraded over time and may require another replacement. On the other hand, mechanical valves will require lifelong blood thinning medicines.

Hence, discuss with your doctor to determine which valve may be best suited for you.

SAVR can also be a challenge in elderly patients with multiple co-morbidities as it may increase the risk of death in such patients.



Mechanical



Biological

## Why Choose The Valve Clinic

- The **most experienced team in the city** performing all types of structural heart interventions such as MitraClip, Balloon mitral valvuloplasty (BMV) Paravalvular leak device closure (PVLDC).
- **Expertise in executing TAVI procedures** through alternative access.
- **Affordable rates** for TAVI / TMVR procedures.

## 1st time in Asia-Pacific TAVI through Carotid Artery

### Case Report:

Alternate access route for AN2 deployment - Implantation of ACURATE neo2 through Trans-Carotid (TC) route due to inaccessibility via trans-femoral or trans-subclavian route [First TC case for AN2 in Asia-Pacific].



### Background:

69 yr Female, diabetic, hypertensive, stroke history, renal issues, allergic to blood transfusion, allergic to several medicines – presented with breathlessness, chest pain, black-outs. She was diagnosed with severe aortic stenosis.

Upon CT analysis, she was found unsuitable for trans-femoral TAVI access due to:

- Stent implanted in right femoral
- Vascular graft on left ilio-femoral

As an alternative route, trans-subclavian was analyzed and even that was found un-suitable for TAVI access due to:

- Pacemaker implanted on left side and a tight block in left subclavian
- Anomalous right subclavian going across and then connecting the aortic arch



### Planning:

With all 4 access sites un-favorable, trans-carotid (TC) approach was decided with surgical access to left carotid route for TAVI with below additional planning:

- CT angio of brain was done to document adequate blood supply to brain through circle of willis.
- Position of OT table was adjusted with respect to C arm movement to trace movement of delivery system & other hardware
- Unlike TF route, iSleeve here does not go deep in and hence some one needs to hold it steady while most of it hangs out of patient's neck
- All the hardware might go right across the valve and not over the NCC as it does during transfemoral TAVI. Hence constant hand push needs to be maintained with high pacing rates for better stability

### Procedure:

Acurate neo 2™ small (23mm) was implanted after pre-dilatation with 18mm NC balloon. Procedure was successful with zero leak and single digit gradient. No post-dilatation was required. Supra annular AN2 gave better EOA and patient went home with significant improvement in her daily activities.

iSleeve introducer sheath and the Acurate neo 2™ delivery system were stable & performed remarkably well in trans-carotid approach and presented no challenges or additional maneuvering for usage.