

Updated 1/28/24	TAVR (TAVI)	SAVR
First Procedures (2)	FDA Approval Ext Risk 2011, High risk 2012, low 2019	Mechanical 1960, cow and pig tissues 1970
Guidelines (3)	Not Recommended Patient Dependent Preferred Option	Preferred Option Patient Dependent Not Recommended
Actual as of	Oct-15 Dec-21	Oct-15 Dec-21
Under 65	17% 48%	83% 52%
65 to 80	46% 87%	54% 13%
80 Plus	83% 99%	17% 1%
How Long		
in surgery	1 to 2 Hours	4 to 6 hours
in hospital	2 days	4 days
begin exercising	One week	4 to 6 weeks
begin Golfing		Minimum wait of 12 weeks
begin driving	One week (no narcotic pain medicine)	6 weeks
begin working	Two Weeks	6 to 8 weeks
Heavy Lifting	10 days/10 pounds	3 months
Insertion Area	2 to 4 Weeks	
breastbone heal		6 to 8 weeks
Feel normal	one to two months	Two to three months
Anaesthesia	Conscious sedation is a combination of medicines to help you relax (a sedative) and to block pain (an anesthetic) during a medical or dental procedure. You will probably stay awake, but may not be able to speak. Conscious sedation lets you recover quickly and return	General - Most side effects happen immediately after your operation and do not last long. Possible side effects include: feeling sick or being sick (vomiting) – this usually happens immediately, although some people may continue to feel sick for up to a day.

<p>What happens with heart (7)</p>	<p>Cardiac pacing at 180 to 200 bpm is an effective means to stabilize the balloon during aortic valvuloplasty and transcatheter aortic valve implantation (TAVI). Classic temporary pacing requires femoral or jugular puncture for placement of the active fixation electrode in the right ventricle (RV). NEED MORE Information</p>			<p>Another name for cardiopulmonary bypass is being "on the pump." Usually, if you're on the pump, your surgeon will also use medication (cardioplegia solution) to stop your heart from beating. Cardiopulmonary bypass with cardioplegia allows your surgeon to perform surgery on a still (non-beating) heart. This procedure also allows the rest of your body to receive the oxygen-rich blood it needs to survive. Instead of flowing through your heart and lungs, your blood drains into a machine outside your body. This machine is a cardiopulmonary bypass machine, or a heart-lung machine. This machine takes over the jobs of your heart and lungs. These jobs include adding oxygen to your blood, removing carbon dioxide from your blood and then pumping this refreshed blood back into your body.</p>		
<p>How Many Last 12 Months (1) Last three years When was your first</p>	<p>National 78,000</p>	<p>Hospital</p>	<p>Surgeon</p>	<p>National 57,500</p>	<p>Hospital</p>	<p>Surgeon</p>
<p>Death Rate (patient dependent) During procedure After three months After a year</p>	<p>National</p>	<p>Hospital</p>	<p>Surgeon</p>	<p>National</p>	<p>Hospital</p>	<p>Surgeon</p>
<p>The More the Better (5)</p>	<p>Among nearly 100,000 transfemoral TAVR cases included in the analysis, the researchers found that hospitals in the group with the lowest volume had the highest 30-day mortality rate, at 3.19 percent, compared to hospitals in the group with highest volumes at 2.66 percent. This represents a relative reduction in patient mortality of 19.45 percent between the lowest- and highest-volume centers.</p>					

Life of the Valve	Edwards literature said teted for 5 years?	
<p>Second Surgery</p> <p>Many people I have talked with like the concept of TAVR after the SAVR fails.</p>	<p>"we are just beginning to see more and more patients with failing TAVR valves and the TAVR-in-TAVR procedure is less well understood."</p>	<p>"If the first valve is SAVR, there is now extensive experience with placing a TAVR valve inside a failing SAVR valve, so called Valve-in-Valve or TAVR-in-SAVR. This is the preferred treatment in most patients with failing SAVR valves," he said.</p>
Question	How difficult is to replace a TARV valve with a SARV?	
<p>Interesting Comments</p> <p>This was a n very interesting abstract worth the complete read (4).</p> <p>Minimally Invasive SAVR (6)</p> <p>TAVR Overview (good complete read) (8)</p>	<p>When the aortic valve anatomy is favorable for TAVR and transfemoral access is possible, TAVR will result in clinical outcomes comparable to those of SAVR," Dr. Kapadia explains. "In contrast, when patients have unfavorable anatomy in the TAVR implantation zone or poor femoral access, SAVR is the treatment of choice. But there is also a 'gray zone' of intermediate-risk situations that demand judicious, individualized decision-making, and that's what we aimed to address."</p> <p>Minimally invasive AVR (MiAVR) and transcatheter aortic valve implantation (TAVI) are two alternative AVR options, both which avoid full sternotomy. MiAVR can be performed via either a right anterior thoracotomy (RT) or a partial hemi-sternotomy (HS). MiAVR has shown reductions in pain, mechanical ventilation, blood transfusion requirement, sternal wound complications, atrial fibrillation and hospital length of stay (LOS) when compared to SAVR via complete sternotomy (2-5). The clinical applicability of MiAVR has expanded from low-risk patients into higher risk cohorts as improved postoperative outcomes have been demonstrated (6). TAVI can likewise be performed via several access routes, including femoral, axillary and carotid arteries. TAVI has demonstrated non-inferiority mortality outcomes in the short to medium term compared to SAVR in patients across all surgical risk categories (7-9), including low-risk surgical candidates in some continents following the results of large trials (10,11).</p> <p>The Food and Drug Administration approved TAVR for use in a broad spectrum of patients following multiple research studies comparing TAVR to SAVR. Whether TAVR or SAVR is more appropriate for a given individual depends on multiple factors and is discussed with each patient by both an interventional cardiologist and a cardiac surgeon. During TAVR, your doctor inserts a catheter through a blood vessel in your leg to deliver and implant the artificial valve into your heart. Significant research is exploring how to both advance the use of this technique and improve the devices that are used for TAVR.</p>	

<p>Valve Options</p>	<table border="0"> <tr> <td data-bbox="598 141 808 219">Abbot</td> <td data-bbox="808 141 1276 219">Navitor</td> </tr> <tr> <td data-bbox="598 219 808 259"></td> <td data-bbox="808 219 1276 259">Portico</td> </tr> <tr> <td data-bbox="598 259 808 300">Edwards</td> <td data-bbox="808 259 1276 300">Sapient 3 Ultra Resilia</td> </tr> <tr> <td data-bbox="598 300 808 341"></td> <td data-bbox="808 300 1276 341">Sapient 3</td> </tr> <tr> <td data-bbox="598 341 808 381">Medtronic</td> <td data-bbox="808 341 1276 381">Evolut FX</td> </tr> <tr> <td data-bbox="598 381 808 662">Boston Scientific</td> <td data-bbox="808 381 1276 662">Acurate neo2</td> </tr> </table>	Abbot	Navitor		Portico	Edwards	Sapient 3 Ultra Resilia		Sapient 3	Medtronic	Evolut FX	Boston Scientific	Acurate neo2	<p>Mechanical</p> <p>Biological (pig, cow, human)</p> <p>Is this brand specific</p> <p>Currently, the American College of Cardiology and the American Heart Association recommend mechanical valves for people under age 50 and biologic (tissue) valves for those over 70. For people like you who fall between those ages, neither type has an absolutely clear advantage over the other. Feb 12, 2021</p>
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Questions

Which Procedure do you recommend for me and why

What valves do you operate on

Do you do both TAVI and SARV

Is the team the same for both TAVI and SARV

Are you performing the procedures or a fellow?

How long has your team been together

Does my bicuspid valve affect the decision

Dr. Povsic was not on the Edwards/Duke site, is that an issue?

How soon for the surgery

Should I push to have my teeth cleaning done now

Which Valve and Why

Does Duke offer the other brands

Have you used them

What is the best you expect from this procedures

What can you tell me about my recovery

What is cardio rehab routine for this procedure

How do we address the future surgery

If you had this procedures who would you use

If you had this procedures who would you use at UNC

UNC is an American College of Cardiology Certified TAVR center of excellence, are you?

Can you explain your team approach

There are risks associated with this how do you manage them

What else should I know about you and your team to help me make my decision

How long for blood thinners if any?

If SAVR do you perform minimally invasive

What did I forget to ask