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DAMIAN RASCH, D.O.

ENCINITAS · LA JOLLA, CALIFORNIA



TAVR

Transcatheter aortic valve replacement (TAVR) replaces a narrowed aortic valve through a small puncture in the groin, without opening the chest. How it works, how recovery goes and what to ask.

45 to 90 min
for the procedure, usually under light sedation

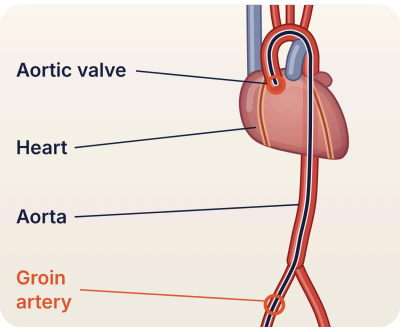
1 to 2 days
in the hospital, and many people go home the next morning

1 to 2 weeks
to get back to normal activity, versus 6 to 12 weeks after surgery

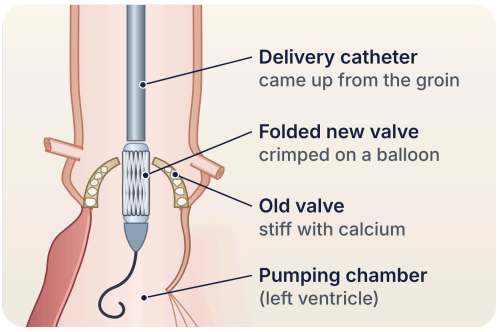
HOW IT WORKS

A new valve, delivered through an artery

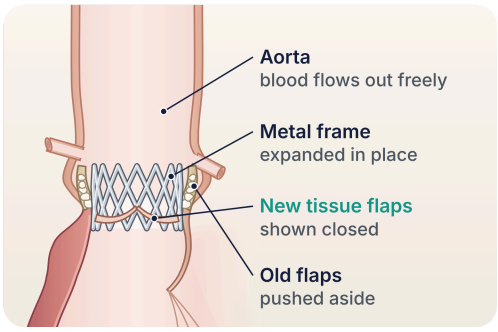
1 Up from the groin



2 Across the narrowed valve



3 Opened inside the old one



In about 95% of cases the catheter goes in through the femoral artery at the top of the leg. The old valve stays where it is. The new one, made of cow or pig tissue on a metal frame, is opened inside it by a balloon or by a frame that springs into shape, and it takes over right away. There's no breastbone incision, no heart-lung machine and no stopping the heart. For most people over 65 with severe aortic stenosis and symptoms, TAVR is now the first choice.

RECOVERY

Most people feel better within days

Day of TAVR
Walking that evening or the next morning

Next day
Home, usually the morning after

First week
No lifting over about 10 pounds, hard exercise or long drives

About 1 week
Usually cleared to drive

By 2 weeks
Back to normal activity for most people

Weeks 3 to 6
Around this time stamina returns, and you walk farther

The breathlessness, chest tightness or lightheadedness that led to the procedure often fades within days. The early limits protect the groin puncture while it heals.

Ask about cardiac rehab

Twelve weeks of supervised exercise and education improves stamina, quality of life and how well people keep up with their medicines. Medicare covers it after valve replacement, and home-based and virtual programs work too.

DECIDING AND PREPARING

TAVR or surgery, and what to expect

TAVR COMPARED WITH OPEN-HEART SURGERY

How it's done	TAVR goes through an artery with light sedation. Surgery (SAVR) opens the breastbone under general anesthesia, with the heart stopped and a heart-lung machine doing its work.
Hospital and recovery	About 1 to 2 days in the hospital and 1 to 2 weeks to recover with TAVR, versus 5 to 7 days and 6 to 12 weeks with surgery.
How well it lasts	In large trials of low-risk patients, TAVR matched surgery on survival, stroke and repeat procedures at five years. Surgical tissue valves have the longer record, typically 15 to 20 years.

WHEN SURGERY MAY STILL BE THE BETTER CHOICE

Younger, at low risk	Especially under 65, when a valve may need to last for decades.
Some bicuspid valves	A valve born with two flaps, mainly with lopsided calcium or a widened aorta to replace.
Other surgery needed	Blocked heart arteries needing bypass, or a leaky mitral valve, can be fixed in the same operation.
An infected valve	Active endocarditis needs the infected tissue removed, and only surgery can do that.
Narrow leg arteries	Other entry routes exist, but for some people surgery is the cleanest option.

PREPARING, MEDICINES AND RISKS

The heart team	Cardiologists and a cardiac surgeon review every case and make a recommendation. The final decision is yours.
Tests before	An echocardiogram, a coronary angiogram and a cardiac CT scan that sizes the valve and checks the groin arteries, plus a frailty check such as walking speed and grip strength.
Medicines after	With no other reason for a blood thinner, low-dose aspirin (75 to 100 mg) for life. Some people at low bleeding risk also take clopidogrel for the first 3 to 6 months. If you take a blood thinner for atrial fibrillation, you stay on it.
Pacemaker	In pooled studies, about 1 in 10 people with balloon-expanded valves and up to about 1 in 4 with self-expanding valves need one. Rates vary between centers.
Stroke	About 2 to 3% in the first 30 days, similar to or lower than with surgery.

AFTER TAVR, GET HELP QUICKLY

Call 911	Stroke signs (sudden weakness, numbness, trouble speaking, a drooping face), fainting, severe shortness of breath, or a groin that keeps swelling or bleeds and doesn't stop with firm pressure. The heart's wiring sits close to the valve, so fainting or a very slow pulse with lightheadedness is urgent.
Call the office	A slow pulse without other symptoms, or mild bruising at the groin.

HOW LONG WILL IT LAST?

At least 8 to 10 years in follow-up so far, and newer valves are expected to last longer. They wear out gradually. If one does, a second valve can be placed inside it through another catheter procedure, called valve-in-valve.

READ THE FULL ARTICLE

damianrasch.com/tavr

For education only, and not a substitute for advice from your own physician. Sources include the 2020 ACC/AHA and 2021 ESC/EACTS valvular heart disease guidelines, the PARTNER 3 and Evolut Low Risk trials and their five-year results, NOTION-2 (2024) and the STS/ACC TVT Registry.

DR. DAMIAN RASCH, D.O. · BOARD-CERTIFIED INVASIVE CARDIOLOGIST · ENCINITAS AND LA JOLLA, CA

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