

TREATING YOUR AORTIC STENOSIS

TRANSCATHETER
AORTIC VALVE IMPLANTATION
(TAVI) SYSTEM



Medtronic
Further, Together



TABLE OF CONTENTS

Inside Your Heart	4
What Is Severe Aortic Stenosis?	5
Common Treatment Options	6
What Is the Best Treatment for You?	7
TAVI Procedure	8
After Your Procedure	9
What to Expect	10
Benefits and Risks	11
Frequently Asked Questions	14

We created this booklet to help you learn more about severe aortic stenosis and about common treatment options, including the transcatheter aortic valve replacement (TAVI) procedure.

Discover more at
[medtronic.eu/TAVI](https://www.medtronic.eu/TAVI)

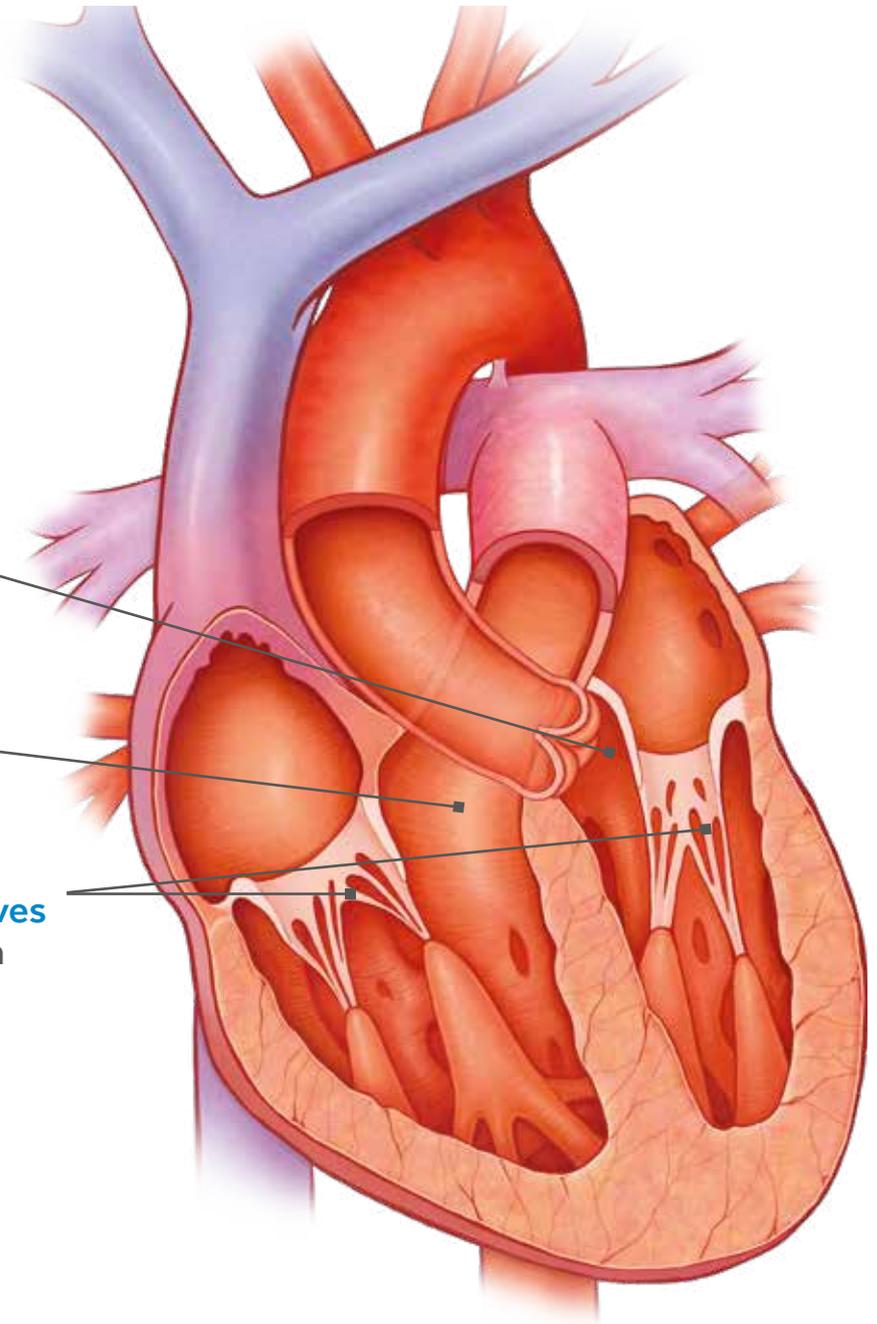
INSIDE YOUR HEART

Your heart's job is to supply oxygen-rich blood to the rest of your body. It does that by pumping blood through four heart chambers with the help of four heart valves that open and close with every heartbeat.

The **aortic valve** controls blood flow to the body (except the lungs).

The **pulmonary valve** controls blood flow to the lungs.

The **mitral and tricuspid valves** control blood flow between the heart chambers.



Did you know that a healthy heart beats approximately 100,000 times a day?

WHAT IS SEVERE AORTIC STENOSIS?

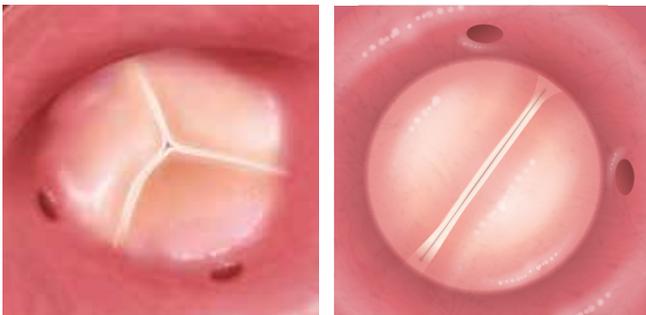
Severe aortic stenosis prevents your aortic valve leaflets from opening and closing properly. This makes your heart work harder to pump blood to the rest of your body. A diseased valve affects your health and limits your daily activities. Left untreated, severe AS can lead to heart failure or even sudden death.

Some causes of severe aortic stenosis include:

- Age
- Calcium buildup
- Radiation therapy
- Infection of the heart

Symptoms of severe aortic stenosis **develop insidiously** and **often go unrecognized** by patients and their physicians. They include, but are not limited to:

- Chest pain
- Dizziness
- Fatigue
- Shortness of breath
- Irregular heartbeat



Tricuspid valve

Bicuspid valve

In a **healthy aortic valve**, thin leaflets open and close properly. A normal aortic valve has three leaflets. Some people are born with a bicuspid valve, which has only two leaflets.



Tricuspid valve

Bicuspid valve

In a **diseased (stenotic) valve**, the leaflets become stiff and thickened, limiting the amount of blood pumped out to the body. The increasing pressure within the heart causes it to weaken.

COMMON TREATMENT OPTIONS

Transcatheter Aortic Valve Implantation (TAVI)

TAVI is less invasive than open heart surgery.

Your doctor will make a small incision on your body. After, a thin, flexible tube is inserted into an artery to guide the artificial heart valve up to your heart to replace the diseased valve.

Surgical Aortic Valve Replacement (SAVR)

Open heart surgery is done to remove the damaged valve and replace it with an artificial valve. Patients usually need to stay in the hospital for a week or more, before beginning a long period of recovery.

SAVR often includes the following:

- Your chest is opened to access the heart
- Your heart is stopped
- A machine pumps blood through your body
- The new valve is sewn into place

Patients usually need to stay in the hospital for a week or more, before beginning a long period of recovery.

Medication / Balloon Valvuloplasty (BAV)

Certain medications may ease some of your symptoms.

A procedure called Balloon Valvuloplasty (BAV) may also be done. BAV is not surgery. This is where a tiny balloon is inflated in the aortic valve to try and improve blood flow, but this treatment typically provides only temporary relief. This may help the valve function better, but is only a temporary fix. Without valve replacement you could feel worse over time.

TAVI procedures were first performed in 2002.



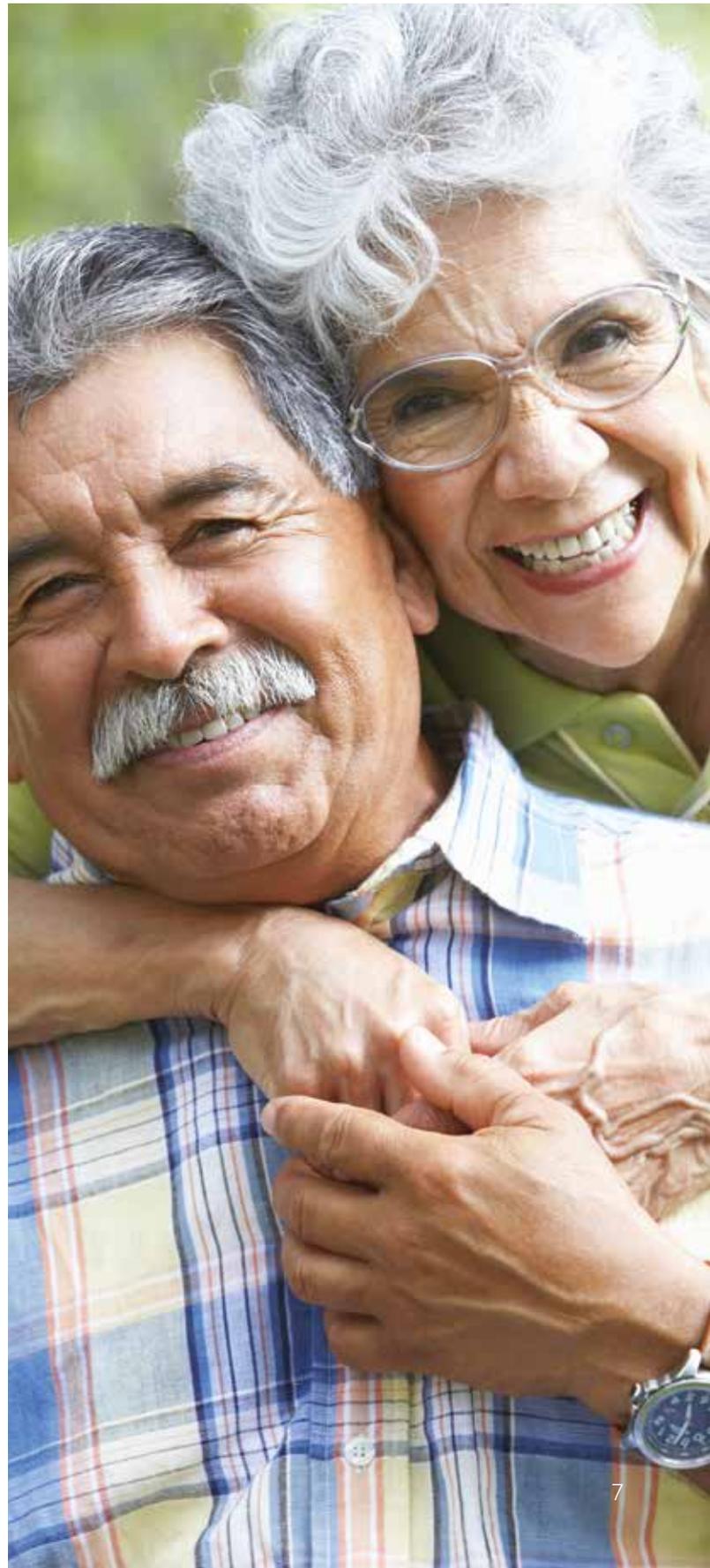
WHAT IS THE BEST TREATMENT OPTION FOR YOU?

Your heart team will conduct tests to help determine the best treatment option for you. These tests will tell your doctor:

- The shape and size of your heart
- The structure of your artery system
- If you have other medical problems

Common tests performed may include:

- Cardiac catheterization
- CT scan
- Echocardiogram (sometimes with medication)
- Carotid ultrasound
- Blood tests
- Physical exam
- Exercise and Frailty testing



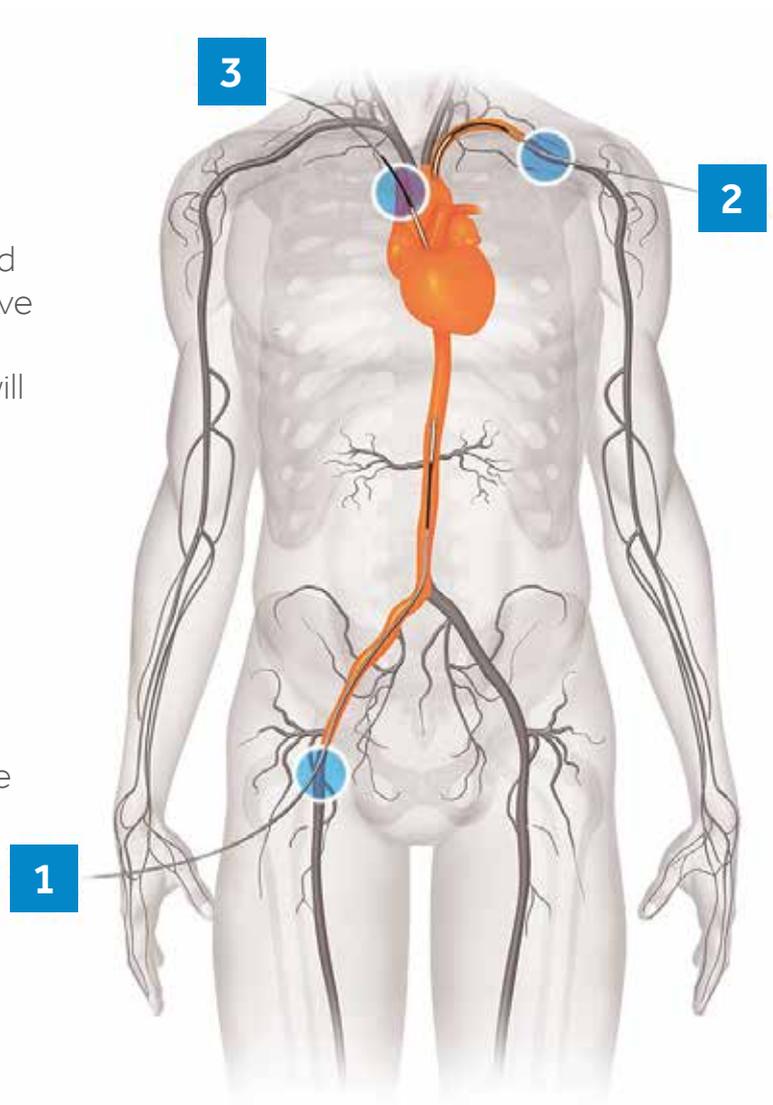
TAVI PROCEDURE

Your heart team will determine whether you should have a mild sedative or general anesthesia.

At the start of the procedure, your doctor will make a small cut in the groin **1**; the neck **2**; or a space between your ribs **3** and guide a thin, flexible tube with the heart valve into your artery and to your diseased valve. Throughout your procedure, your doctor will be viewing images of your heart. Another entry point could be determined by your doctor. Each route has risks. Discuss them with your doctor.

The TAVI heart valve will be placed in your diseased valve. Your new valve will work immediately.

Your doctor will remove the tube and close the incision. The entire procedure typically takes approximately one to two hours.



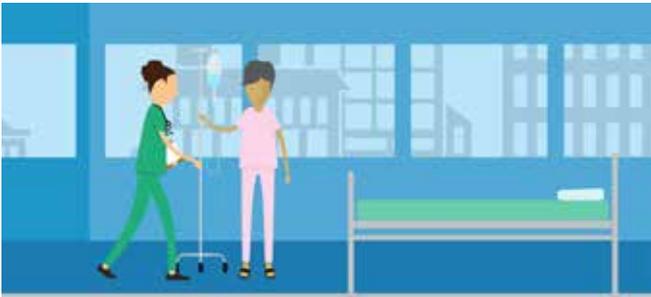
Learn more about
the TAVI patient journey at
[medtronic.eu/TAVI](https://www.medtronic.eu/TAVI)

AFTER YOUR PROCEDURE



STEP 1: Initial recovery

After intervention you will start the recovery process. You may spend a day or more in the ICU (intensive care unit) and another day or two in a patient room.



STEP 2: Hospital stay

Most patients begin walking within a day or two of their TAVI procedure. 3-10 days is a typical hospital stay for this procedure, but varies by patient.



STEP 3: Discharge

Before you leave the hospital, your doctor will explain what kinds of activities you can do, if you need to take medication, and when you will need to see your doctor again. At discharge, your doctor will determine whether you'll head home or to a cardiac rehab facility.

You may also receive a card with information about your TAVI heart valve. Share this card with your family members and all members of your healthcare team, including your dentist. If you need an MRI, tell your doctor that you have a TAVI heart valve.

TAVI Follow-up Visits

You will be asked to return to the valve clinic to have your heart valve checked at 30 days and one year after your procedure, and as recommended by your physician.

WHAT TO EXPECT

Most patients start feeling better right away, but it can take a little longer for others. Many TAVI patients report benefits like:

- Having more energy
- Being able to do everyday activities
- Breathing normally
- Experiencing less pain
- Feeling less anxious

If you have concerns, discomfort, or changes in your health, be sure to let your doctor know right away.

The lifespan of the TAVI valve will vary from patient to patient. It has been tested to mimic 5 years of use without failure. Keep appointments with your doctor. Follow all care instructions to ensure the best possible results.



BENEFITS AND RISKS

Benefits

You should start feeling better right away. This is because your heart valve is now working properly. Some patients may take longer to feel better.

Most patients feel less pain and less anxious. They can take care of themselves better and go back to everyday activities.

Defining Your Surgical Risk

Your doctor can determine your risk category based upon several factors, including age and other medical conditions that might make surgery more dangerous for you.

Risks

Most medical procedures have risks. The TAVI procedure's most serious risks are:

- Need for permanent pacemaker
- Serious bleeding — a bleeding event that requires a blood transfusion
- Serious damage to the arteries
- Stroke
- Death

The chance of an adverse event from the TAVI procedure depends on many factors, including your underlying medical conditions.

TAVI valve indications

There are different TAVI heart valves available, which have different indications based on their clinical data.

Generally the indications are based on surgical risk scores as well as other patient anatomical and clinical characteristics.

Your doctor can help to decide if TAVI is the right procedure for you. Your TAVI heart team will choose the best TAVI valve for you.

The TAVI Procedure Cannot Be Used for Certain People

Patients who:

- Have an infection
- Cannot take blood-thinning medicines
- Have a reaction to some metals

If the TAVI procedure is performed in the patients mentioned above, it will not work properly. This could make you feel very sick or even cause death.

**For some patients, the TAVI procedure risks may outweigh the benefits.
Please speak to your doctor regarding your health and the treatment options
that are possible for you.**

FREQUENTLY ASKED QUESTIONS

1. How do I know if my TAVI heart valve is working properly?

Your doctor will check your valve during your regular follow-up visits.

2. What kinds of exercise can I do?

Discuss this with your doctor. He or she can help you decide what activities are safe for you.

3. Is it safe to have an MRI with a TAVI heart valve?

If you need an MRI, tell your doctor that you have a TAVI heart valve. Not doing so could result in injury or death.

4. Can the TAVI procedure be performed in all patients?

The TAVI procedure cannot be performed in patients who:

- Have an infection
- Cannot take blood thinners
- Have a reaction to some metals

5. What are the risks of the TAVI procedure?

All medical procedures come with risks. Although serious or major complications from the TAVI procedure are rare, they can include:

- Death
- Stroke
- Serious damage to the arteries
- Serious bleeding
- Need for permanent pacemaker

Information contained herein does not replace the recommendations of your healthcare professional.

Medtronic

Europe

Medtronic International Trading Sàrl.
Route du Molliau 31
Case postale
CH-1131 Tolochenaz
Tel: +41 (0)21 802 70 00
Fax: +41 (0)21 802 79 00

UC201907991cEE © Medtronic 2021.
All rights reserved.

[medtronic.eu/TAVI](https://www.medtronic.eu/TAVI)