PCR

AORTIC STENOSIS IN WOMEN

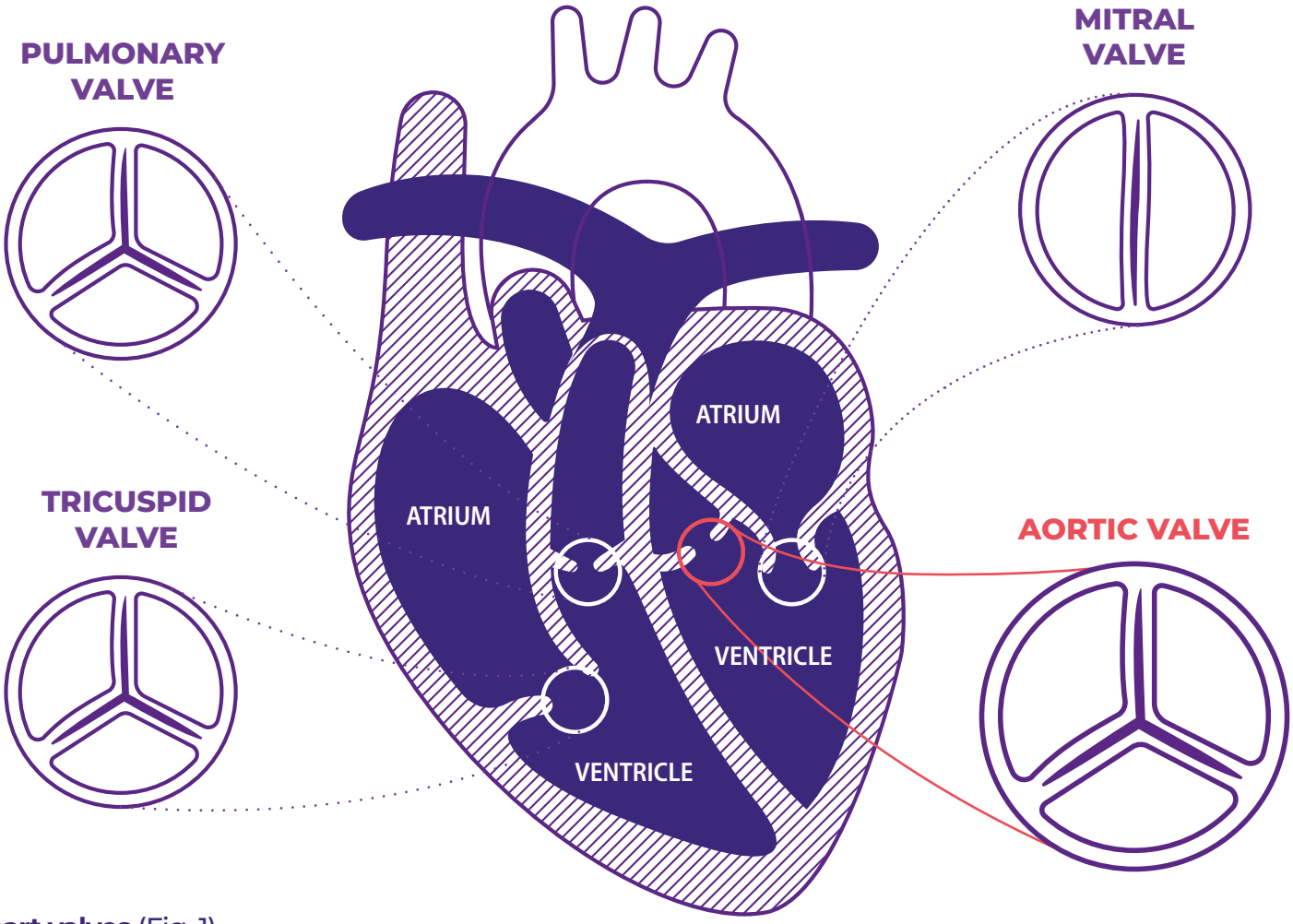
A booklet for patients

In collaboration with

Global Heart Hub

AORTIC STENOSIS IN WOMEN

CAUSES, SYMPTOMS, AND TREATMENT OPTIONS



Heart valves (Fig. 1)

UNDERSTANDING AORTIC STENOSIS

Aortic stenosis is a heart condition where the valve between the heart and the body's main artery (aorta) becomes too narrow.

Think of your aortic heart valve like a door that opens and closes to let blood flow through. In aortic stenosis, this door becomes stiff and narrow, making it harder to open. This slows down blood flow from the heart to the rest of the body, which can lead to serious health problems.

Doctors use tests, including echocardiograms, scans and catheters (long thin tubes), to check how severe the narrowing is. If it's serious, treatment may involve either open-heart surgery or a less invasive procedure through an artery in the groin, called Transcatheter Aortic Valve Implantation (TAVI).

Women often experience different symptoms than men. They are usually diagnosed later in life, possibly because they don't recognise or report their symptoms early on. As a result, their condition may be more advanced by the time they seek medical help, and they may not get treatment as soon as they should.

This booklet is here to help you understand the condition, recognise symptoms, and explore treatment options, so you can get the right care at the right time.

SYMPTOMS OF AORTIC STENOSIS IN WOMEN

Aortic valve stenosis ranges from mild to severe. Symptoms generally appear when the valve is very narrowed.

Women with aortic stenosis are also more likely to have other health conditions, like **diabetes, high blood pressure, lung disease, or irregular heartbeats (atrial fibrillation).**

Aortic valve stenosis may lead to heart failure. Heart failure symptoms include extreme tiredness, shortness of breath, and swollen ankles and feet.

You might experience the following symptoms when going about your daily activities such as walking up the stairs, gardening or household chores.

These can include:

- Chest pain or tightness
- Feeling faint or dizzy or fainting
- Shortness of breath
- Fatigue
- Rapid, fluttering heartbeat

Women who are pregnant or perimenopausal may experience similar symptoms (breathlessness or palpitations) and therefore aortic stenosis is frequently missed or diagnosed with a significant delay.

CAUSES OF AORTIC STENOSIS

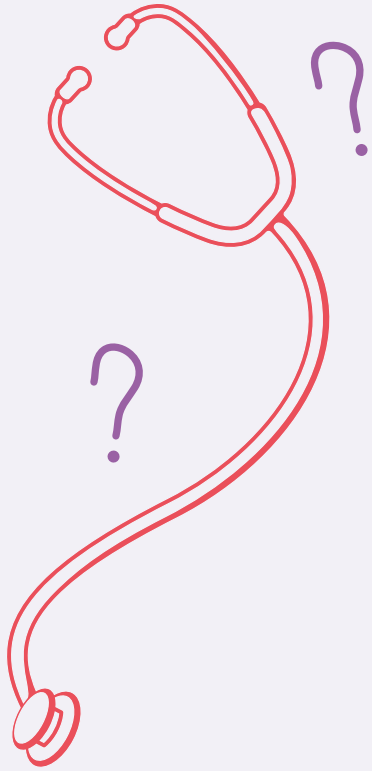
- **Age:** As people age, calcium builds up on the aortic valve, making it stiff and narrow. This is the most common cause in older people.
- **Congenital heart conditions:** Some people are born with an aortic valve that has two leaflets instead of three, and these two leaflet valves can degenerate later in life.
- **High blood pressure:** This can lead to heart issues, including aortic stenosis.
- **High cholesterol:** High cholesterol (hyperlipidaemia) can increase the risk of aortic stenosis.
- **Tobacco products:** Using tobacco products can increase the risk of aortic stenosis.
- **Rheumatic fever:** A rare complication of strep throat that can cause scarring of the aortic valve.

How is aortic stenosis diagnosed?

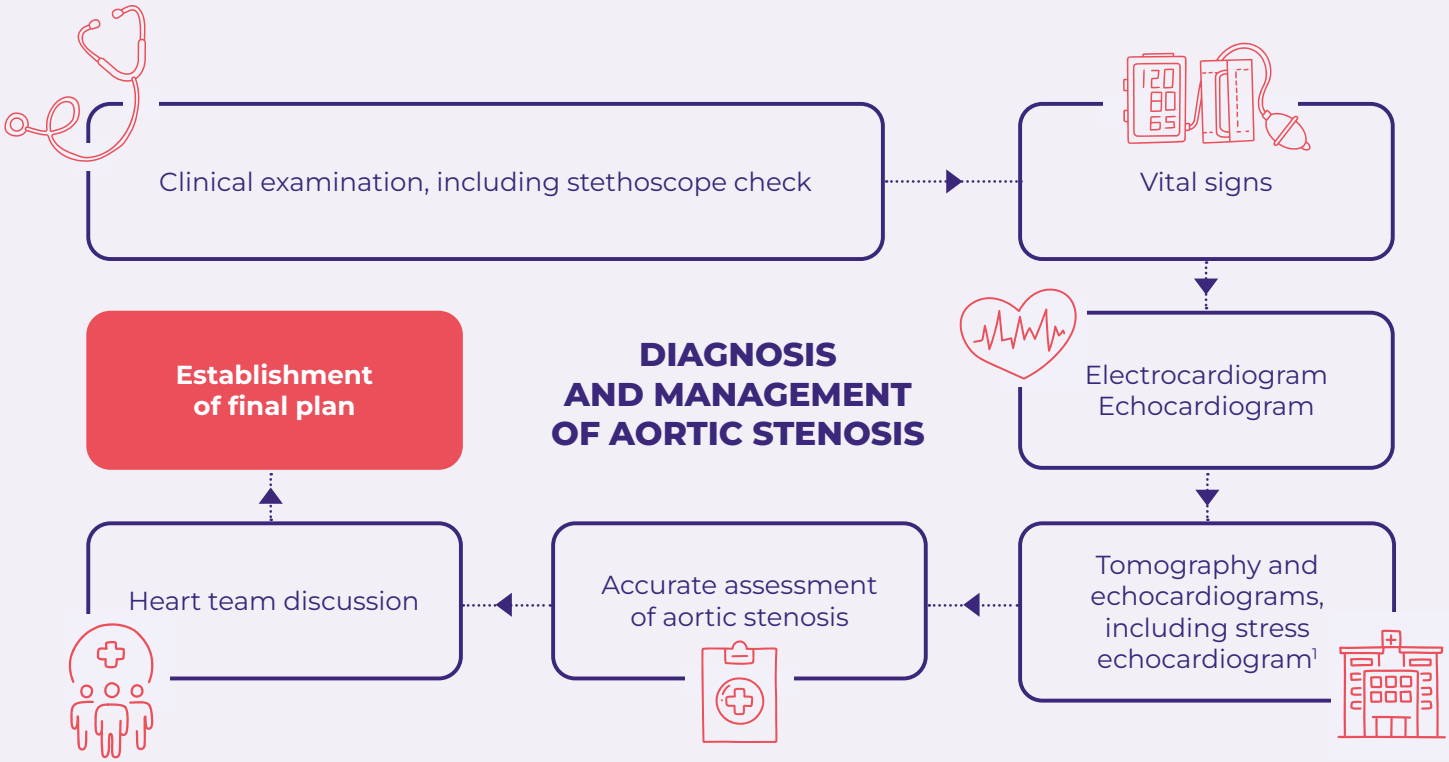
Your doctor will need to do a full check-up with:

- **Clinical examination:** When you visit your doctor or hospital specialist they will ask for your medical history. You will be asked questions about your symptoms (we elaborate on this later) and your medical background.
- **Vital signs:** The nurses or doctors will routinely take your blood pressure, heart rate, oxygen saturation and temperature.
- **Cardiac auscultation:** A very important part of the clinical examination is to listen to your heart with a **stethoscope**. This part is crucial and **should never be missed**.

While the first steps are performed by a General Practitioner (GP) in many cases further investigation will be led by a specialist, who may perform an examination such as a 30 minute heart ultrasound (or echocardiogram) – this is just like a pregnancy scan and uses gel on your chest and sound waves to visualise your heart, including the valves.



Let's follow the path your diagnosis and treatment will take



Patient pathway to diagnosis and management of aortic stenosis (Fig. 2)

Your heart team will discuss the most suitable treatment options for your specific case, considering your lifestyle and personal preferences, so that you can make a shared decision on your treatment.

1. Stress echocardiogram: a test that checks your heart and blood vessels while you exercise.

Initial visit – questions your doctor may ask you

One of the major factors leading to the underdiagnosis of aortic stenosis is that women may present with different symptoms than men.

That's why – for patients as well as both doctors and allied health professionals – it is important to take into consideration the daily activities of the patient and identify examples of exercise decline:

A useful quick questionnaire is demonstrated below: (Fig. 3)

Source: Aortic Stenosis - Signs and Symptoms. CardioSmart. Available at: https://www.cardiosmart.org/topics/aortic-stenosis/signs-and-symptoms Accessed 11 April 2024.

I HAVE BEEN DIAGNOSED WITH AORTIC STENOSIS
WHAT ARE MY TREATMENT OPTIONS?

Monitoring (Watchful Waiting)

Sometimes, if aortic stenosis is mild or moderate, immediate treatment isn't needed. Instead, your doctor may recommend **regular check-ups** to monitor your heart and symptoms. This approach is also used for patients who may not be suitable for valve replacement due to other serious health conditions or frailty.

What it involves: Regular heart scans (echocardiograms) every 6–12 months and discussions about any new or worsening symptoms like fatigue, breathlessness, or reduced activity levels.

Important to know: Medicines can help with symptoms, but **they can't stop or slow down** progression of aortic stenosis.

Participating in decisions about my care

Many people with heart valve disease will need valve repair or replacement. Clinical guidelines recommend shared decision-making, where you and your doctors collaborate to choose the best treatment and ensure you feel fully supported in your decision.

From the point of diagnosis

Your doctor should keep you informed about upcoming treatment decisions and respond to your questions and concerns.

You should use the opportunity to learn more about heart valve disease and possible treatment choices. You can find resources at **globalhearthub.org/valvepatientguide**

Making a choice about treatment

If your valve needs to be replaced or repaired, options include surgery or a catheter-based intervention. Choosing the right treatment is complex and depends on many different factors — not all options may be suitable for you. You and your doctors should discuss the most suitable treatment together, based on your preferences and the risks and benefits of each approach.

Ask whether you will have the opportunity to discuss your preferences with a doctor or nurse who is part of a specialist heart team. You also have the right to ask for a second opinion.

Bring a loved one and/or carer to the appointment to support you.

Prepare for your conversation about treatment options.

Understanding Transcatheter Aortic Valve Implantation (TAVI) and Surgical Aortic Valve Replacement (SAVR)

European guidelines currently recommend TAVI as the preferred treatment option for older patients with severe aortic stenosis. In younger patients, however, SAVR is usually considered the first-line treatment, as it provides longer-term durability and may be more suitable for those with a lower surgical risk. Understanding these options can help you and your doctor decide on the best treatment for you.

What is Surgical Aortic Valve Replacement (SAVR)?

SAVR is a **traditional open-heart operation** where the damaged valve is replaced with either a mechanical or biological valve. Mechanical valves are artificial valves made of plastic or metal. Biological valves are usually made from animal tissue, but can also be taken from a human (who has donated their heart) or, sometimes, the patient's own heart valve can be used for part of the operation (Ross procedure).

- **Why choose SAVR?** It has a **proven long-term success rate,** especially for patients who are good candidates for open-heart surgery.
- **Things to consider for women:** Older women often have **smaller heart valves** and may be more frail, making surgery riskier and requiring a longer recovery compared to men.

Recovery time: Recovery from open-heart surgery usually takes several weeks, and sometimes up to 3 months. Patients may stay in the hospital for a long time and may need more rehabilitation to regain strength.

What is Transcatheter Aortic Valve Implantation (TAVI)?

TAVI is a **less invasive option** that replaces the valve using a thin tube (catheter), usually inserted through an artery in the leg. The new valve pushes the old valve leaflets aside, taking over its function without the need for open-heart surgery. This technique has revolutionised care for patients with severe aortic stenosis, particularly for those unable to undergo SAVR.

- **Why choose TAVI?** It avoids open-heart surgery, leading to a **shorter hospital stay and faster recovery**, and is now the **preferred treatment** for many patients, especially those at higher surgical risk.
- **Recovery time:** Most patients will spend 1–2 days in the hospital and can get back to their normal activities within a week.

Questions to ask your doctor

The appointment with the doctor – either at the GP's clinic or specialised centre – is crucial for your care, both for the correct diagnosis and final management plan. You may consider writing all your questions in a notebook, answering them one by one with your doctor.

A few questions that you may consider:

1. What symptoms should I look out for?

2. What tests do I need to have?

3. Could you explain to me the results of the blood test/echocardiogram?

4. How severe is my aortic stenosis?

5. When should I be referred to a cardiologist?

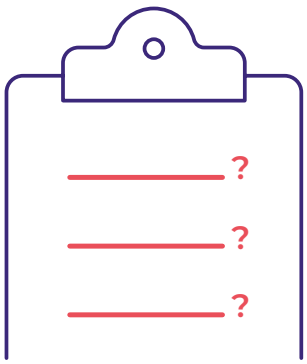
In terms of the management plan, you may consider asking about the steps ahead, the consequences for long-term quality of life or going back to your activities.

How can you prepare for the conversation about the choice of treatment?

Think ahead about what matters to you as this will help your doctors to tailor your treatment.

Ask yourself:

- What does my lifestyle look like now? Am I physically active? Do I work full-time and am I the sole earner or carer? What are my hobbies and things I like to do in my spare time? What does my weekly/monthly routine involve, and how flexible can I be with my commitments and interests?
- Do I have major plans for the next year – work, travel, family, or cultural events?
- What level of personal commitment am I comfortable with? What adjustments are manageable, and what would impact my quality of life?
- Would I be okay with lifelong daily medication?
- How do I feel about the possibility of needing a pacemaker after aortic valve replacement or a valve with slightly lower durability?



Prepare questions that you may want to ask during the meeting with the heart team.

Common questions you may want to ask:

1.

What are the different options for valve replacement (i.e. biological or mechanical valves, or catheter-based interventions) and what advantages and disadvantages might they have for me?

2.

What are the risks if I do nothing?

3.

What is the likely impact of the different options on my daily life?

4.

What is the rate of success of my procedure?

5.

Will I need anticoagulation after the procedure? If so, what type?

6.

How long might it take me to recover from each type of treatment? How long will I have to stay in hospital? What might influence my recovery time?

7.

How might the timing of the procedure impact my daily life and planned activities, including recovery time?

8.

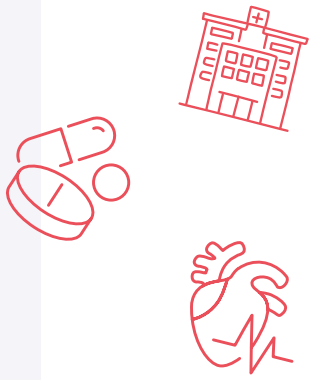
How long does each method of replacement/repair last? What would it mean to me if the valve needs to be replaced again in the future?

9.

What happens if my valve has a complication?

10.

Do you think I may need a pacemaker?



Your doctors cannot predict the future, but they can give you helpful answers based on what they know about you, evidence from clinical research and their experiences with other patients.

RECOVERY AND FOLLOW-UP

Recovery after SAVR

Recovery from an open-heart surgery (SAVR) can take several weeks or months. The time it takes to recover depends on a number of factors, including your age and overall health.

Hospital stay

The patient usually stays in the hospital for about a week after surgery and will be given advice on what to expect during recovery and what activities to avoid.

Returning to normal activities

You should take things easy at first, but you can gradually return to normal activities over time.

You should avoid activities that may require extra strength, such as heavy lifting.

Walking

You can start gentle walking as soon as you feel up to it and gradually increase the length of your walk.

Returning to work

If you have an office job, you may be able to return to work in 6–8 weeks.

If your job is physically strenuous, you may need to wait 3 months.

Returning to work depends on how you feel, and you may always consult your doctor.

Scar healing

Your chest scar will usually heal in 6–8 weeks, but it may take 2–3 months to feel normal again.

Eating well

Eating healthily is key to a good recovery.

Reduce your salt intake to help lower blood pressure and prevent fluid retention.

Avoid sugary foods.

Driving

You should not drive for at least 4 weeks after the procedure.
You should wait until you can comfortably stop your car in an emergency.

Recovery from TAVI:

Most patients spend 1-2 days in the hospital and can get back to their normal activities within a week.

Other considerations

You should contact your TAVI nurse (a specially trained healthcare professional who supports patients before, during, and after a TAVI procedure) if you experience any of the following:

- Increased pain, swelling, redness, bleeding or discharge at the wound site.
- Fever or raised temperature.
- Worsening chest pain or breathlessness.
- Fainting or dizziness.
- Swelling in the ankles or legs.
- Consider seeking psychological support

Follow-up

When you go home, a follow-up appointment is usually made with local nurses or general practitioners. This first follow-up includes a physical examination, vital signs, cardiac auscultation and a review of current symptoms and medicines.
During the first few weeks, you will also receive an appointment for a heart scan (echocardiogram) in order to check that the valve is working well. Following this initial appointment, the doctor will decide how frequently you should be seen. For uncomplicated aortic valve replacements, an appointment every 1–2 years is sufficient. Meanwhile, your general practitioner will look after risk factors for cardiovascular heart disease including hypertension, hypercholesterolemia, or diabetes.

If you have been diagnosed with aortic stenosis, know that you are not alone. Aortic stenosis is common and serious, but treatable. Both SAVR and TAVI can help restore your heart's function and improve your quality of life. It might be useful to get in touch with your local patient organisation, which can offer support and point you to information and resources. By staying informed and working with your healthcare team, you can take the best steps toward a healthier heart and a better future.

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