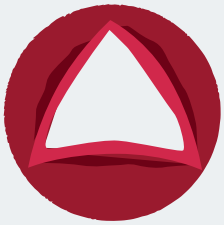
A guide to Aortic Stenosis

Aortic stenosis is one of the most common and serious forms of heart valve disease, yet most people know little about it. Very simply, it is a build-up of calcium deposits on one of the valves in your heart called the aortic valve.

This causes the valve to narrow and reduce blood flow to the rest of your body. Overtime this makes the heart work harder and as the valve gets narrower you may notice common symptoms such as shortness of breath and dizziness. As your heart works harder these symptoms may worsen as Aortic Stenosis is usually a progressive disease.

What is the Aortic Valve?

The aortic valve is one of four valves that control blood flow in the heart. The Aortic Valve plays an important role helping to keep blood flowing in the correct direction through the heart and to the rest of the body.



Normal Aortic Valve Open

Normal Aortic Valve Closed

Aortic Valve Stensosis Open

Aortic Valve Stenosis Closed

What is the main cause of Aortic Stenosis?

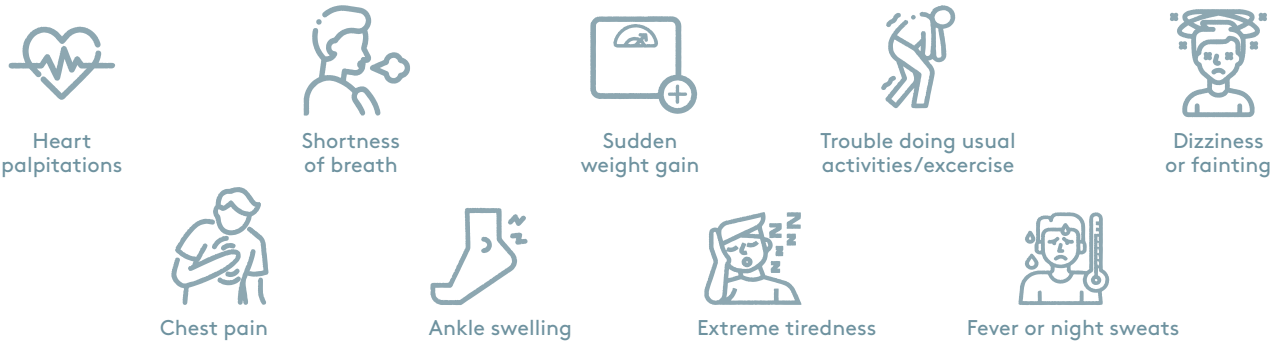
Age related calcium build up on the aortic valve: Calcium can leave our bones and move into the wrong places as we get older, and the most common cause of Aortic Stenosis is calcium building up on the valve making it stiff and restricting the amount of blood that can flow through.

There are several other causes (but these are less common) including:

- **Congenital heart conditions:** If you were born with a heart valve, such as bicuspid aortic valve disease, your risk of developing aortic stenosis increases.
- **Infective endocarditis:** Endocarditis is a bacterial infection of the heart valves, where bacteria somewhere in the body gets into the bloodstream.
- **Rheumatic fever:** This rare complication of strep throat infection may damage the aortic valve.

Symptoms

You may have aortic stenosis and not experience symptoms for many years.
As it becomes more severe, your symptoms may include:



Even though you have been accepted for treatment and you are waiting it is very important to keep an eye on your symptoms and let your doctor know if you feel like they are changing or getting worse.

Chest pain, worsening shortness of breath and fainting are very serious symptoms that you should notify your doctor of immediately.

Treatment options

TAVI (Transcatheter aortic valve implantation) and SAVR (surgical aortic valve replacement) are the two main options for severe aortic stenosis.

Every patient is unique and no one treatment option is appropriate for everyone. A heart team has carefully assessed the various factors that determine which treatment option is best for you.

TAVI is a minimally invasive procedure which means it does not require open-heart surgery.

Instead of opening up the chest, a small incision is made, often in the groin. Following this, a long plastic tube (catheter) is guided from the incision site to the heart. The replacement valve is passed through the catheter into the heart and then implanted within the calcified valve. The calcium in the valve helps hold the new valve in place. The replacement valve allows the aortic valve to function normally again.

Why can't I just take medication?

Medication can be prescribed to help manage symptoms but cannot fix the problem with the valve and will not cure your aortic stenosis. The only treatment is to replace the damaged valve with a new one.

What do I do while I'm waiting for my TAVI procedure?

You could be waiting a few months for your TAVI so the most important thing you can do is to keep a very close eye on any new or worsening symptoms and check in with your doctor if you have any concerns. It can be hard to explain your symptoms to your doctor, use the symptom tracker in the folder to monitor any changes.

Caregiver support

TAVI is a minimally invasive procedure but anything involving the heart can still be a worrying or scary experience. Support your loved one by encouraging them to keep themselves as well as possible while they are waiting. Help them if you can with any jobs they are finding difficult to do.

Chest pain, extreme shortness of breath and fainting are more serious signs that need immediate medical attention even while your loved one is waiting for their procedure. If you notice any sudden changes encourage and support them to speak to their doctor. This is the best way for their doctor to know if the disease has progressed and needs attention sooner.

Grimard BH, Safford RE, Burns EL. Aortic Stenosis: Diagnosis and Treatment. Am Fam Physician. 2016 Mar 1;93(5):371-8. PMID: 26926974.
Kanwar A, Thaden JJ, Nkomo VT. Management of Patients With Aortic Valve Stenosis. Mayo Clin Proc. 2018 Apr;93(4):488-508. doi: 10.1016/j.mayocp.2018.01.020. PMID: 29622096.

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