



Mixed aortic valve disease



About your aortic valve

Your aortic valve is one of four valves in your heart. Its job is to stop the blood falling back into the heart (specifically, into the left ventricle) after each heartbeat.

The aortic valve is around the size of a 50p piece and is made up of three leaflets arranged so that they meet in the middle and look a bit like a Mercedes sign. They are as thin as cling film.

Usually, your aortic valve lasts a lifetime. However, things can happen to it that may mean you need to have treatment or surgery.

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Mixed aortic valve disease is when aortic stenosis (narrowing) and aortic regurgitation (leaking) happen together. The leaflets of the aortic valve have thickened so the flow of blood becomes obstructed (aortic stenosis). At the same time, the leaflets don't meet in the middle so blood falls back into your heart after each heartbeat (aortic regurgitation).

The treatment you're offered will depend on your symptoms, how serious your condition is, how well you are, and what the risks are for you during and after treatments. Your surgeon will talk with you about the risks and explain why he or she is recommending a particular procedure for you.

Your new artificial valve may be either a mechanical valve or a tissue valve.

Your valve can be replaced in three ways.

- 1 Conventional aortic valve replacement.** This involves an open-heart operation called a complete median sternotomy and is the main way aortic valves are replaced. Your breastbone (sternum) is divided along its length so your surgeon can get to your heart. Your valve is then replaced. You'll be under general anaesthesia (asleep and feel no pain) for this operation.
- 2 Minimal access aortic valve replacement.** This is when a surgeon gets to your heart through a smaller incision (cut), by dividing only the top part of the sternum, or a small cut to the right side of the breastbone. Your valve is then replaced. You'll be under general anaesthesia. As yet, there's no evidence (proof) to show which of these approaches (conventional or minimal) is the better or safer approach.
- 3 Transcatheter aortic valve implantation (TAVI)** is a completely different way of getting the new valve to your heart. The artificial valve is inserted into the artery at the top of your leg and negotiated back along the artery to your heart. It is then expanded to fit within your own thickened aortic valve. If the artery at the top of your leg isn't suitable, the valve can be inserted through a small incision below your left breast. The procedure can be done under general anaesthesia or local anaesthesia.

TAVI isn't as invasive as conventional surgery, and recovery is quicker so you can go home earlier. However, the long-term results from this procedure aren't known. Because of this, TAVI is only recommended as an alternative if you're not well enough to have conventional surgery.