



# Aortic regurgitation

## 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.

## Aortic regurgitation

Aortic regurgitation (leaking) occurs when the valve leaflets don't meet properly in the middle and the blood falls back into your heart after each heartbeat. Your heart has to work harder to get enough blood around the body.

Aortic regurgitation may not necessarily give you symptoms. Your heart can tire and show signs of strain without you feeling unwell. It's important to have regular echocardiography to detect signs of heart strain. Your cardiologist will arrange these tests with you. Aortic valve surgery is recommended if you're having symptoms or if tests such as echocardiography show that your heart is tiring.

If you need surgery for aortic regurgitation, you'll have your valve replaced. Your new artificial valve, may be either a mechanical valve or a tissue valve.

## Your valve can be replaced in two 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 breast bone (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.

Transcatheter aortic valve implantation (TAVI) is a treatment that is sometimes used for aortic stenosis, but it isn't an option for aortic regurgitation. This is because it isn't possible to expand the new valve into a secure position.

Some surgeons have the knowledge, experience and expertise to repair a leaking valve. In this case, you wouldn't need to have a new valve – your own valve would be repaired instead, either by conventional or minimal access surgery.