

AORTIC VALVE REGURGITATION

Aortic valve regurgitation is a problem with the aortic valve. The aortic valve allows blood to flow from the heart's lower left chamber (ventricle) into the aorta and to the body. When the heart rests between beats, the valve closes to keep blood from flowing backward into the heart.

When you have aortic valve regurgitation, the aortic valve doesn't close as it should. With each heartbeat, some of the blood leaks back (regurgitates) through the aortic valve into the left ventricle. The body does not get enough blood, so the heart has to work harder to make up for it.

You can have this problem for a long time and not know it. It may take years for symptoms to start. This is called chronic aortic valve regurgitation. In rare cases, the valve problem starts suddenly and without warning. This is called acute aortic valve regurgitation which requires medical help right away.

What causes aortic valve regurgitation?

Any condition that damages the aortic valve can cause aortic valve regurgitation. Common causes of chronic valve problems include:

- Being born with a bicuspid aortic valve or a damaged aortic valve.
- Aging.
- Enlargement of the aorta because of high blood pressure or hardening of the arteries.
- Rheumatic fever.

The most common causes of sudden (acute) aortic valve regurgitation include:

- Endocarditis, which is an infection in the heart.
- Aortic dissection, which means that the inner layer of the aorta separates from the middle layer.
- Problems with a replacement (artificial) aortic valve.
- Trauma to the heart valve or aorta.

What are the symptoms?

For chronic regurgitation, you may not have any symptoms at first, but over time you may experience:

- Fatigue or weakness.
- Shortness of breath, most often when you are active.
- A fast, slow, or uneven heartbeat (arrhythmia).

- A feeling that your heart is pounding, racing, or beating unevenly (palpitations).
- Chest pain or pressure (angina), often brought on by exercise, when the heart has to work harder.
- Fainting.

When the valve problem is acute, these symptoms are sudden, often more intense, and life-threatening.

How is aortic valve regurgitation diagnosed?

Your doctor may suspect that you have this type of valve problem after hearing a heart murmur through a stethoscope. He or she will ask about your symptoms and past health and will want to know if you have any family history of heart disease.

You will get further tests, like an echocardiogram to confirm the diagnosis, to show how much the valve is leaking, and to see how well the left ventricle is working.

How is it treated?

Your treatment will depend on what is causing your valve problem and if you have symptoms.

If your aortic valve regurgitation starts suddenly and is acute, you'll need valve replacement surgery right away. But in most people, aortic valve regurgitation starts slowly. Having aortic valve regurgitation means that your heart is working overtime to keep up with your body's needs. Your doctor may initially suggest lifestyle changes to help your heart. He or she will see you regularly to check on your heart. In some cases, doctors prescribe medicine to lower blood pressure and delay the advance of the disease.

If symptoms appear or your heart does not pump as well, you will probably need aortic valve repair or replacement surgery

Make healthy lifestyle changes

- If you smoke, try to quit. Medicines and counseling can help you quit for good.
- Your doctor will also recommend that you follow a heart-healthy diet and limit how much salt you eat.
- If you don't have symptoms of aortic valve regurgitation and your left ventricle is working well, your doctor may suggest regular, light aerobic exercise, such as walking. But don't start an exercise program on your own without first talking with your doctor. You may need some tests to see what sort of exercise is safe for you.
- If you need to lose weight, try to reach and stay at a healthy weight.



Take care of yourself

- Report any symptoms of chest pain or pressure, fainting, and shortness of breath to your doctor right away. These are signs that you are likely to need surgery.
- If your aortic valve regurgitation is severe, your doctor will probably advise you to avoid strenuous physical activity.
- See your doctor regularly, and get the tests you need to assess your heart, such as echocardiograms.
- Practice good dental hygiene and have regular checkups. Good dental health is especially important, because bacteria can spread from infected teeth and gums to the heart valves.
- Get a flu shot every year.
- Talk with your doctor if you have concerns about sex and your heart. Your doctor can help you know if or when it's okay for you to have sex.

Surgical options

Valve repair or replacement surgery is the only cure for aortic valve regurgitation. Having surgery is a big decision. To help decide when you need surgery, you and your doctor will look at your overall health, your heart health, and how severe your regurgitation is.

Your doctor will check:

- Your symptoms, if you have any.
- Your ejection fraction (how much blood your heart is pumping out to your body).
- The size of your left ventricle.

If you need some other heart surgery, such as bypass surgery, your doctor may suggest valve replacement at the same time.

Even if you don't have symptoms, your doctor may suggest surgery. Most of the time, symptoms only occur when the heart is already damaged.

If you have surgery, a mechanical or tissue valve will be used to replace your heart valve. Before you have surgery, you and your doctor will decide on which type of valve is right for you.

Medications

Treatment for chronic aortic valve regurgitation includes medicines to reduce blood pressure. If you have valve replacement surgery, you will need to take medicines to prevent infection and blood clots around the artificial valve.

Medicines to reduce blood pressure

If your regurgitation is moderate to severe, your Cardiologist may prescribe blood pressure medicine such as:

- Angiotensin II receptor blockers (ARB).
- Angiotensin-converting enzyme (ACE) inhibitors.
- Calcium channel blockers.

Medicines for other problems

- Antiarrhythmic medicines help maintain a regular heart rhythm.
- Digoxin and diuretics help relieve symptoms of heart failure.
- Nitrates (such as nitroglycerin) relieve angina symptoms, such as chest pain or pressure.

Medicines after valve surgery

If you have valve replacement surgery, you may need:

- Blood thinners. You may take a blood thinner to prevent blood clots, especially if you had surgery to replace your aortic valve. Blood thinners include antiplatelet medicine, such as aspirin, or the anticoagulant medicine called warfarin (such as Coumadin).
- Antibiotics before you have certain dental or surgical procedures. The antibiotics help prevent an infection in your heart called endocarditis.