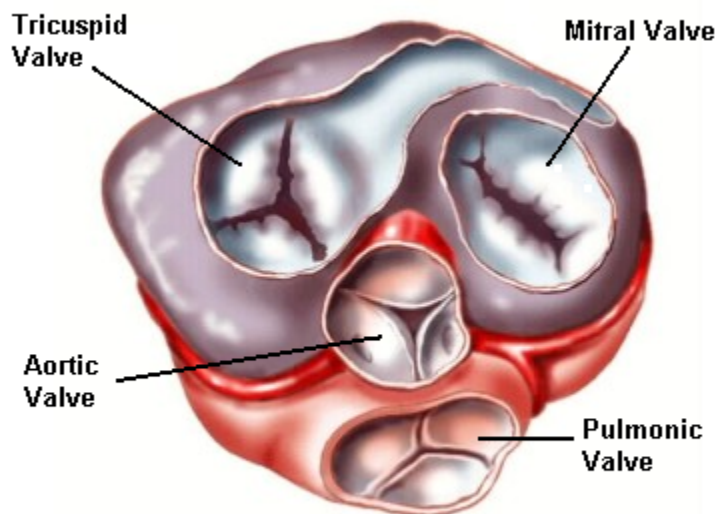


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## **Aortic Regurgitation**

### **What is aortic regurgitation?**

The aortic heart valve keeps blood from flowing back into the left ventricle (one of the lower chambers of your heart) once it's pumped into the aorta. Sometimes this valve doesn't shut properly, and blood "regurgitates" back into the left ventricle. This is known as "aortic regurgitation".



**The Valves of the Heart**

### **Who is affected?**

Aortic regurgitation affects approximately 5 out of 10,000 people. It is most common in men 30 to 60 years old.

### **How is aortic regurgitation caused?**

There is a misalignment of the aortic valve leaflets. This causes the valve to fail to close properly, which then allows flow of blood back into the left ventricle.

The reasons for this malformation of the aortic valve can include:

- Bicuspid aortic valve: This is a deformity that exists at birth. A bicuspid aortic valve has two flaps instead of the three flaps it is supposed to have.
- Infections: Including rheumatic fever and infective endocarditis .
- Marfan's syndrome: An inherited condition leading to weakened tissues
- high blood pressure (hypertension)
- aortic dissection: A split in the wall of the aorta

- ankylosing spondylitis
- Reiter's syndrome
- syphilis
- other diseases or disorders

### **What are the risks of aortic regurgitation?**

When aortic regurgitation occurs, the leakage of blood back into the left ventricle means that the left ventricle has to pump more blood than normal. This causes the left ventricle to gradually increase in size because of the extra workload. Aortic regurgitation can range from mild to severe. Some people may notice no symptoms at all for years.

### **What are the symptoms of aortic regurgitation?**

As mentioned above, some people may notice little or no symptoms for years. Symptoms can occur gradually or suddenly, and can include:

- fatigue, shortness of breath, weakness (especially during periods of increased activity)
- sensation of heart beating (palpitations)
- edema (retention of fluid) in certain parts of the body such as the ankles
- heart arrhythmias (abnormal heart beats)
- angina pectoris (chest pain)
- fainting

### **Can I prevent aortic regurgitation?**

Aortic regurgitation cannot be prevented. However, some of the side effects can be prevented. Here are a few things you can do:

Any bacteria in your blood stream can cause an infection in a weakened heart valve. Make sure to notify any health care provider or dentist of your history of heart valve disease before ANY treatment or procedure for ANY condition. Your doctor may require you to take antibiotic drugs before medical or dental procedures to reduce your risk of infection.

If you have a disease or condition (like a strep infection, for example) that could cause heart valve disease, follow your doctor's treatment recommendations, and ask your doctor any questions you might have. Make sure to notify the doctor of any family history of congenital heart disease

### **How is aortic regurgitation diagnosed?**

Doctors can detect a heart murmur by listening to your chest with a stethoscope. Your doctor might also feel your chest to detect extra forceful beating of your heart. Your doctor may examine your pulse pressure and/or your diastolic blood pressure. Your doctor may also look for signs of pulmonary edema.

Auscultation (listening to the chest with a stethoscope) shows a heart murmur. Palpation (examination by hand) may show hyperdynamic (very forceful) beating of the heart. Pulse pressure (the difference between systolic and diastolic blood pressure) may be widened to more than 60, and diastolic blood pressure may be low. There may be signs

of pulmonary edema.

Certain imaging tests can be used to diagnose aortic insufficiency. They include:

- aortic angiography
- left heart catheterization
- echocardiogram
- Doppler ultrasound
- ECG test or Chest X-ray may show left ventricle enlargement.

### **How is aortic regurgitation treated?**

If your aortic regurgitation is not severe, and your symptoms are mild or non-existent, your physician might simply set up regular visits to monitor the condition. As the condition worsens, your doctor may use medications to treat the problem. These drugs can regulate the rhythm of your heart, help your heart pump better, and control the buildup of body fluids.

Surgical treatment may be needed in serious cases. This involves replacing the diseased valve with an artificial valve.