

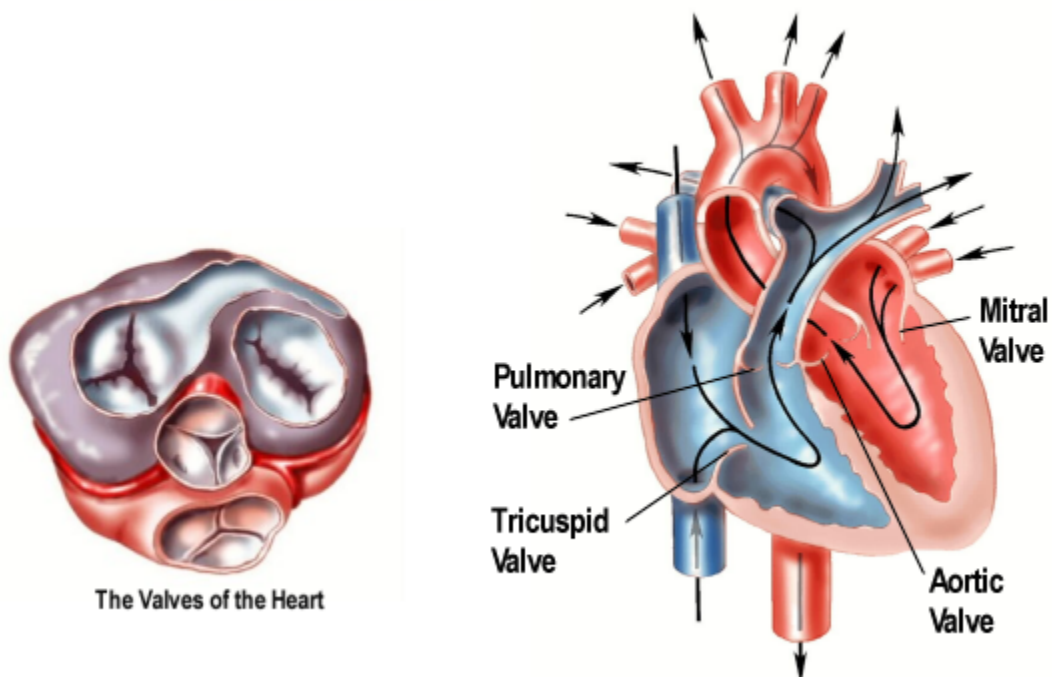
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Mitral valve regurgitation

Mitral valve regurgitation is also known as mitral insufficiency. It is a disorder in which the mitral heart valve does not close properly, causing blood to leak (regurgitate) into the left atrium when the left ventricle contracts. The heart has to pump harder as a result of this regurgitation. Mitral valve regurgitation can be an acute (sudden and generally more severe) problem or a chronic (long-term) problem.



What causes mitral valve regurgitation?

The underlying cause of your heart valve's problem closing is related to a weakened or damaged valve. This damage to the valve can be caused by a myocardial infarction (heart attack), by infective endocarditis, or other conditions that affect the heart valves. Damage to the mitral valve can cause it to protrude (or "prolapse") into the atrium, which creates the opening for blood to flow back into the left atrium. About 5% of individuals have mitral valve prolapse. Rheumatic heart disease can damage the mitral valve leaflets, and accounts for about one-third of all mitral regurgitation. Chronic mitral regurgitation may be inherited or caused by disorders such as atherosclerosis, hypertension (high blood pressure), left ventricle enlargement, connective tissue disorders such as Marfan's syndrome, other congenital defects, endocarditis, cardiac tumors, untreated syphilis, and others. Acute mitral regurgitation may become chronic.

Mitral regurgitation (both acute and chronic mitral regurgitation) affects approximately 5

out of 10,000 people.

Can mitral valve regurgitation be prevented?

The best way to protect against mitral valve regurgitation is to quickly address any of the conditions listed above that could cause the disorder.

You should discuss any history of heart valve disease with your doctor. Your doctor may prescribe antibiotic therapy to be taken prior to any medical or dental procedures that could introduce infective agents into your blood. This includes normal cleaning of your teeth. Ask your doctor if you have any questions about if this applies to you. Treat strep infections promptly to prevent rheumatic fever.

What are the symptoms of mitral valve regurgitation?

Often, no symptoms are present. Symptoms can occur suddenly or gradually, and might include:

- shortness of breath
- rapid respirations
- sensation of feeling the heart beat (palpitations)
- chest pain
- cough
- fatigue and exhaustion (may result from low cardiac output)
- weight loss

How is mitral valve regurgitation diagnosed?

Your doctor will take your history and perform a physical exam. Your doctor will listen to your heart for a murmur. He/she may also listen to your lungs for signs of fluid buildup. Your doctor might also look for signs of right-sided heart failure, which might include ankle edema, enlarged liver, distended neck veins, or other symptoms.

Certain diagnostic tests or imaging methods are useful in diagnosing mitral valve regurgitation. They include:

- echocardiogram
- coronary angiography
- chest X-ray
- Swan-Ganz (left heart catheterization) pressure readings
- ECG
- chest MRI scan,
- radionucleotide scans
- CT scan of the chest

How is mitral valve regurgitation treated?

Most people have no symptoms. If symptoms develop, activity may be restricted. A low-sodium diet may be recommended.

If symptoms are severe, hospitalization may be required. If acute mitral valve

regurgitation is the result of recent endocarditis, heart attack or ruptured cordae, emergency surgery might be required. Surgery includes repair or replacement of the damaged valve.

Medications are used to treat the symptoms and underlying conditions associated with mitral valve regurgitation. If a bacterial infection exists, your doctor will prescribe antibiotic therapy. Antiarrhythmics may be needed to control irregular rhythms. Vasodilators reduce the workload of the heart. Digitalis may be used to strengthen the heartbeat, and diuretics to remove excess fluid such as fluid in the lungs. Anticoagulants or antiplatelet medications may be used to prevent clot formation if atrial fibrillation is present (atrial fibrillation increases the chances of clot formation).

If blood pressure cannot be maintained, a device called an intra-aortic balloon pump (IABP) can help reduce the backflow of blood.