

MITRAL VALVE REGURGITATION

Mitral valve regurgitation is when the mitral valve in the heart is leaky. The valve allows blood to flow back, instead of all pumping into the next chamber. It is also known as mitral insufficiency.

Understanding mitral valve regurgitation

The mitral valve is one of the heart's 4 valves. These valves help the blood flow through the heart's 4 chambers and out to the body. The mitral valve lies between the left atrium and the left ventricle. Normally, the mitral valve stops blood from flowing back into the left atrium from the left ventricle.

With mitral valve regurgitation, some blood leaks back over the valve. This makes the heart have to work harder to get blood out to your body. If the regurgitation gets worse, some blood may start to back up into your lungs.

Mitral valve regurgitation can increase risk for other heart rhythm problems, such as atrial fibrillation (a-fib). This is a condition where the heart beats very fast, but doesn't pump much blood. Blood can pool in the heart and form clots.

Mitral valve regurgitation can be acute or chronic. If it's acute, the valve suddenly becomes leaky. In this case, the heart doesn't have time to adapt to the leak in the valve. Symptoms are often severe. If it's chronic, the valve becomes leaky over time. The heart has time to adapt to the leak. The symptoms may range from mild to severe. Acute, severe mitral valve regurgitation is a medical emergency.

What causes mitral valve regurgitation?

Mitral valve regurgitation can be caused by various things, such as:

- Heart attack
- Tearing of the tissue or muscle that supports the mitral valve
- A mitral valve that doesn't close normally (prolapse)
- Rheumatic heart disease caused by untreated Streptococcus infection. Strep are the bacteria that cause strep throat.
- Coronary artery disease
- Certain autoimmune diseases, such as rheumatoid arthritis
- Infection of the heart valves (endocarditis)
- Problems with the mitral valve that are present at birth
- Injury
- Certain medications

Acute mitral valve regurgitation is more likely to happen after a heart attack. It's also more likely to happen after tearing of the tissue or muscle that supports the mitral valve.

You can reduce some risk factors for mitral valve regurgitation. For example:

- Use antibiotics to treat a strep infection and prevent rheumatic heart disease.
- Reduce the risk for heart valve infection by not injecting illegal drugs.
- Get treated right away for health conditions that can lead to the problem.

There are other risk factors that you can't change. For example, some conditions that can lead to mitral valve regurgitation are partly genetic.

Symptoms of mitral valve regurgitation

Chronic mitral valve regurgitation often doesn't cause symptoms for a long time. Mild or moderate mitral regurgitation often doesn't cause any symptoms. If the condition becomes more severe, you may have symptoms. They may get worse and happen more often over time. Symptoms may include:

- Shortness of breath with physical activity
- Shortness of breath when lying flat
- Feeling tired
- Less ability to exercise
- Awareness of your heartbeat
- Swelling in your legs, abdomen, and the veins in your neck
- Chest pain (less common)

Acute, severe mitral valve regurgitation is a medical emergency that can cause serious symptoms such as:

- Symptoms of shock (pale skin, loss of consciousness, rapid breathing)
- Severe shortness of breath
- Arrhythmias that make the heart unable to pump blood well

Diagnosing mitral valve regurgitation

Your health care provider will ask about your medical history. He or she will give you a physical exam. Using a stethoscope, your health care provider will listen to your heart. This is to check for sounds called heart murmurs and other signs that the heart isn't pumping normally. You may also have tests such as:

- Echocardiogram, to look at the structure of the heart
- Stress echocardiogram, to see how well the heart does during exercise
- Electrocardiogram (EKG), to check the heart's rhythm
- Cardiac MRI, transesophageal echocardiogram, or cardiac catheterization, if more information is needed

Treatment for mitral valve regurgitation

Treatment will depend on the cause of your condition. It also depends on how severe and sudden it is.

If you have mild or moderate regurgitation, you may not need treatment. Your health care provider may just watch your health. You may need echocardiograms over time if you have moderate regurgitation. You may also need to take medicines such as:

- Angiotensin-converting enzyme (ACE) inhibitors and beta-blockers, to help reduce the workload of a heart that's not pumping well
- Medicines to slow the heart rate during a-fib
- Water pills (diuretics) to reduce swelling and improve symptoms
- Blood thinner medicine (anticoagulant) to help prevent blood clots if you have a-fib

You may need surgery for severe regurgitation. Surgery is often needed right away for acute severe regurgitation. The surgeon may be able to repair the mitral valve. In some cases, the valve may need to be replaced.

Possible complications of mitral valve regurgitation

Mitral valve regurgitation can cause complications such as:

- Atrial fibrillation (a-fib), which leads to increased risk for stroke
- High blood pressure in the lungs (pulmonary artery hypertension)
- Dilation of the heart
- Heart failure

To reduce the risk of these complications, your health care provider may prescribe:

- Blood thinner medicine to prevent blood clots
- Medicine to reduce the stress load of the heart
- Antibiotics before certain medical and dental procedures

Living with mitral valve regurgitation

See your health care provider regularly. This is so he or she can watch your condition. Take note of any symptoms you feel. They may get worse during physical activity. Talk with your health care provider about what level of exercise is right for you. If you have mitral valve regurgitation that is getting worse, you may be advised to avoid certain sports. Tell all your health care providers and dentists about your valve problem.

If you have heart problems related to mitral valve regurgitation, your health care provider may also treat you with:

- Medicines that lower blood pressure
- Medicines to reduce the risk for arrhythmias

And your health care provider may also tell you to:

- Eat a low-salt, heart-healthy diet to lower blood pressure and the stress on your heart
- Reduce caffeine and alcohol to lower your risk for arrhythmias