



Mitral Valve Regurgitation: Treating a Leaky Valve

We all know that having a heart is critical to our survival, but have you ever stopped to think why? It's because the heart pumps blood throughout the body — blood rich with the oxygen and nutrients that our bodies need to function. The heart has four valves that keep the blood flowing on a one-way path to where it needs to go. If a valve doesn't close properly, blood can leak back into the heart, which is called **regurgitation**. The **mitral valve** is especially susceptible to this problem. If the leak is minor, you might never know it because the valve can still accomplish its job. But if the leaking becomes severe, the heart muscle has to work much harder to pump more blood, putting your heart and you at great risk.

To learn more about mitral valve regurgitation and how to treat it, **read on**.

What Causes the Mitral Valve to Leak?

A leaky mitral valve, or mitral regurgitation, can develop when the valve flaps (called **leaflets**) do not close effectively. This can happen either because the valve flaps are scarred or defective, or because the heart has become enlarged, stretching the valve opening so much that the flaps no longer meet in the center.

Mitral valve regurgitation (or **insufficiency**, as it is sometimes called) may be the result of **mitral valve prolapse**, a condition in which the valve leaflets and the fibers (or cords) that support them become floppy and elongated. Mitral valve prolapse does not always lead to regurgitation. In fact, many people who have mitral valve prolapse never develop severe leaking of the mitral valve.

The risk of developing a leaky mitral valve increases as we age because the valve is prone to wear and tear over time. The valve leaflets can be damaged or stretched out to the extent they don't close properly, allowing blood to leak back into the heart.

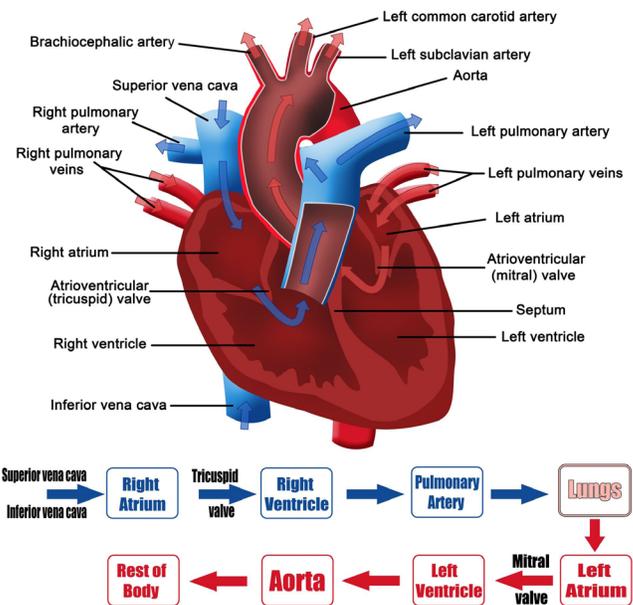
How Do I Know if I Have Mitral Valve Regurgitation?

You can have a leaky mitral valve and never know. Patients with mitral regurgitation rarely have symptoms until the valve is leaking severely. Symptoms of mitral valve regurgitation include –

- difficulty breathing
- trouble exercising
- fatigue

If your doctor suspects that you have a heart valve problem, he or she will want to examine you further and possibly refer you to a

CIRCULATION OF BLOOD THROUGH THE HEART



The heart valves are essential to keep blood flowing in the right direction through the heart and to prevent blood from backing up in the chambers of the heart. If one or more of the heart valves fails to open or close as they should, then the heart cannot pump blood as effectively as it needs. Mitral valve regurgitation is one condition that can affect the heart's ability to do its job. Fortunately, mitral valve regurgitation and most other heart valve problems can be successfully treated with surgery or newer innovative therapies.

cardiologist. Your doctor can learn a lot about your valve problem by listening to your heart, discussing your symptoms, and checking your vital signs. He or she may also recommend tests. Testing is used to confirm your doctor's preliminary diagnosis and to continue monitoring and tracking the development of the valve problem.

How Is Mitral Valve Regurgitation Treated?

If you do have a leaky mitral valve, it is important to talk with your doctor about treatment options. The best treatment for you will depend on a number of factors, including your age, the severity of the damage, your symptoms, the structure of your heart, other medical conditions you may have, and your lifestyle.

Treatment of valve disease can be critical — both for relief from symptoms and to avoid serious damage to your heart. See the table on the next page for a summary of the most common approaches to treating mitral valve regurgitation.



	What is involved?	Why would you choose it?
Medication, Monitoring, and Healthy Lifestyle	<ul style="list-style-type: none"> • Medications may be prescribed to relieve symptoms. • Record and report symptoms and any changes on an ongoing basis to your doctor. • Regular echocardiograms (every 6 or 12 months). • Reduce other risk factors, such as stop smoking, eat a healthier diet, and exercise. 	<ul style="list-style-type: none"> • Symptoms are not severe. • Your physical exam and other tests indicate that the valve does not need to be repaired or replaced. • You are too frail or sick to tolerate surgery or any other type of procedure.
Surgery	<p>If you have open-heart surgery to repair or replace a valve, you will receive a general anesthetic and your heart surgeon will make an incision the length of your breast bone to expose your heart. You will be connected to a heart-lung machine, which will take over your breathing and blood circulation during the surgery. The surgeon will stop your heart, make an incision to expose the valve, and either repair it or replace it by cutting out the old valve and sewing in the new one. Once this is complete, your breast bone will be sutured back together.</p>	<p>Symptoms are so severe that they interfere with your daily activities and the valve is leaking so much that your heart and life are at risk.</p>
MitraClip*	<p>MitraClip is a tiny clip that grasps the leaflets of the mitral valve to create two smaller openings in the leaky valve, rather than one large opening. This stops blood from flowing backward (regurgitating). The clip is placed in the heart using a slender tube called a catheter. The catheter is threaded up to the heart through a vein in the groin. The clip is then moved into position directly over the center of the mitral valve's leaflets and put into place. Then the catheter is removed from the patient's body.</p>	<ul style="list-style-type: none"> • Symptoms are so severe that they interfere with daily activities and the valve is leaking so much that your heart and life are at risk. • Because the procedure is less invasive than open-heart surgery, it may be an option for patients too frail or sick for surgery. • As of October 2013, the FDA approved the MitraClip for patients outside of research trials.

*Other catheter-based approaches and devices are still under investigation and are not yet approved by the FDA. However, they could offer promising treatment options in the future.

Share Your Heart Condition with All Healthcare Providers

Tell your dentist and doctors about your heart valve disease. Certain procedures may increase your risk of a serious condition called **endocarditis**, an infection on the valves of the heart that can be prevented by taking antibiotics in advance.

Questions to Ask Your Doctor About Mitral Valve Regurgitation

- What will happen **if I don't receive treatment** for my mitral valve regurgitation?
- **How can I expect to feel** if my treatment is a success?
- Do I have to take **medication**? For how long?
- What **symptoms** should I watch for that may indicate that my mitral valve regurgitation is getting worse?

- If I have a valve mitral valve regurgitation or mitral valve prolapse, do I need to take **antibiotics before I have my teeth cleaned**?

What Should I Do If I Have More Questions?

Ask them. Valve problems often get worse after the symptoms start, so don't put off seeing your doctor. If it turns out that your symptoms are signaling a valve problem, your doctor will want to see you on a regular basis to monitor your condition and, if the problem becomes more severe, discuss treatment options. *Other catheter-based approaches and devices are still under investigation and are not yet approved by the FDA. However, they could offer promising treatment options in the future.