

Mitral valve prolapse

Definition

Mitral valve prolapse is a heart problem in which the valve that separates the upper and lower chambers of the left side of the heart does not close properly.

Alternative Names

Barlow syndrome; Floppy mitral valve; Myxomatous mitral valve; Billowing mitral valve; Systolic click-murmur syndrome; Prolapsing mitral leaflet syndrome

Causes

The mitral valve helps blood on the left side of the heart flow in one direction. It closes to keep blood from moving backwards when the heart beats (contracts).

Mitral valve prolapse is the term used when the valve does not close properly. It can be caused by many different things. In most cases, it is harmless and patients usually do not know they have the problem. As much as 10% of the population has some minor, insignificant form of mitral valve prolapse, but it does not generally affect their lifestyle.

In a small number of cases, the prolapse can cause blood to leak backwards. This is called mitral regurgitation.

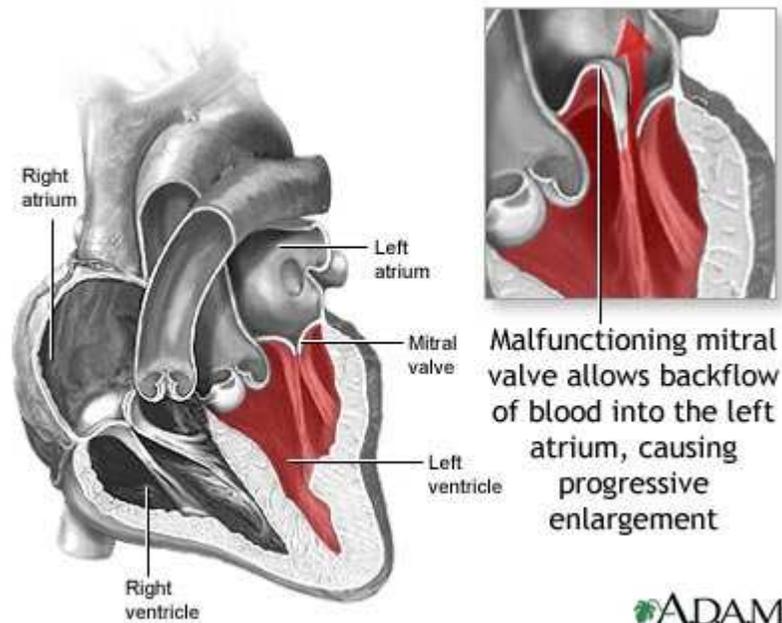
Mitral valves that are structurally abnormal can raise the risk for bacterial infection.

Some forms of mitral valve prolapse seem to be passed down through families (inherited). Mitral valve prolapse has been associated with Graves disease.

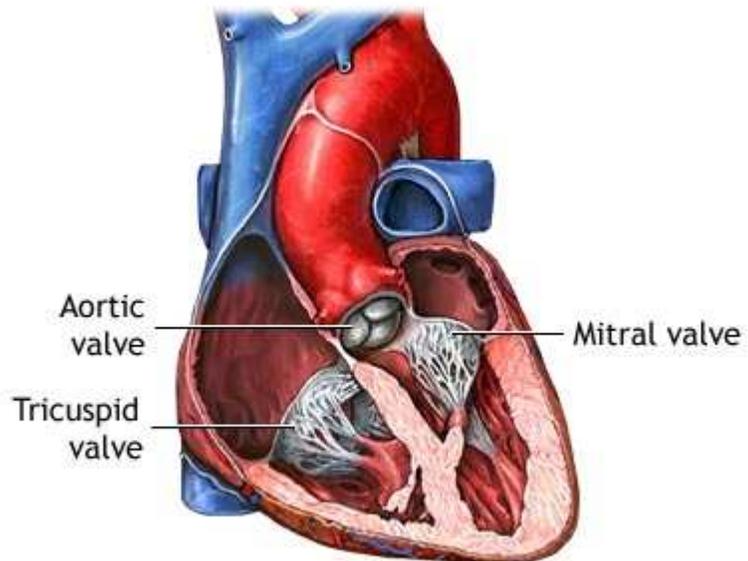
Mitral valve prolapse often affects thin women who may have minor chest wall deformities, scoliosis, or other disorders.

Mitral valve prolapse is associated with some connective tissue disorders, especially Marfan syndrome. Other conditions include:

- Ehlers-Danlos syndrome
- Osteogenesis imperfecta
- Polycystic kidney disease



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Symptoms

Many patients with mitral valve prolapse do not have symptoms. The group of symptoms found in patients with mitral valve prolapse is called "mitral valve prolapse syndrome" and includes:

- Sensation of feeling the heart beat (palpitations)
- Chest pain (not caused by coronary artery disease or a heart attack)
- Difficulty breathing after activity
- Fatigue
- Cough
- Shortness of breath when lying flat (orthopnea)

Note: There may be no symptoms, or symptoms may develop slowly.

Exams and Tests

The doctor will perform a physical exam and use a stethoscope to listen to your heart and lungs. The doctor may feel a thrill (vibration) over the heart, and hear a heart murmur ("midsystolic click"). The murmur gets louder when you stand up.

Blood pressure is usually normal.

The following tests may be used to diagnose mitral valve prolapse or a leaky mitral valve:

- Echocardiogram
- Color-flow Doppler examination
- Cardiac catheterization
- Chest x-ray
- ECG (may show arrhythmias such as atrial fibrillation)
- Chest MRI
- CT scan of the chest

Treatment

Most of the time, there are no (or few) symptoms, and treatment is not needed.

If you have severe mitral valve prolapse, you may need to stay in the hospital. You may need surgery to repair or replace the valve if you have severe mitral regurgitation or your symptoms get worse. Mitral valve replacement may be needed if:

- You have symptoms
- The left ventricle of the heart is enlarged
- Heart function gets worse (depressed ejection fraction)

In the past, some people with mitral valve prolapse were given antibiotics before certain dental or surgical procedures to help prevent an infection called bacterial endocarditis (BE). However, the American Heart Association no longer recommends routine antibiotics before dental procedures or other surgical procedures for patients with only mitral valve prolapse, unless they have had bacterial endocarditis in the past.

Other drugs that may be prescribed when mitral regurgitation or other heart problems are also present:

- Anti-arrhythmic drugs help control irregular heartbeats.
- Water pills (diuretics) help remove excess fluid in the lungs.
- Propranolol is given for palpitations or chest pain.
- Blood thinners (anticoagulants) help prevent blood clots in people who also have atrial fibrillation.

Outlook (Prognosis)

Mitral valve prolapse should not negatively affect your lifestyle. If the leaky valve becomes severe, your outlook may be similar to that of people who have mitral regurgitation from any other cause.

Most of the time, the condition is harmless and does not cause symptoms. Symptoms that do occur can be treated and controlled with medicine or surgery. However, some irregular heartbeats (arrhythmias) associated with mitral valve prolapse can be life-threatening.

Possible Complications

- Endocarditis -- valve infection
- Severe leaky mitral valve (regurgitation)
- Stroke
- Clots to other areas
- Irregular heartbeat (arrhythmias), including atrial fibrillation

When to Contact a Medical Professional

Call your health care provider if you have:

- Chest discomfort, palpitations, or fainting spells that get worse
- Long-term illnesses with fevers

Prevention

You can't usually prevent mitral valve prolapse, but you can prevent certain complications. Tell your health care providers, including your dentist, if you have a history of heart disease or heart valve problems.

References

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