

Patient information from BMJ

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Mitral valve prolapse

If you have mitral valve prolapse it means that one of the valves in your heart doesn't close properly. This doesn't usually cause any problems. But if it gets worse it can cause symptoms. Treatment can help with these symptoms.

We've brought together the research about mitral valve prolapse and talked to experts about the best way to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

What is mitral valve prolapse?

The heart has four parts or chambers: an upper and lower chamber on both the left and right sides. Oxygen-rich blood from the lungs arrives at the top chamber on the left side of the heart.

This blood is pumped to the lower chamber and then out to the rest of the body, delivering oxygen to the body's cells.

The mitral valve sits between the upper and lower chambers on the left side of the heart. It helps to keep blood that's pumped from the upper chamber in the lower chamber.

If the valve doesn't close properly, blood can leak back towards the lungs. If this happens just a little it's not usually a problem. But if it gets more severe it's called mitral valve regurgitation, and this can cause symptoms.

MVP affects about 2 in 100 people. Men and women are equally likely to get it. Certain things can increase someone's chance of getting MVP, including:

- having a problem with the tissues that hold the structures of the body together (called connective tissue). For example, having a condition called Marfan's syndrome or having adult polycystic kidney disease.
- having sickle cell disease.
- having rheumatic heart disease.

There are many names for MVP. For example, you might hear it called:

- click-murmur syndrome

Mitral valve prolapse

- Barlow's syndrome
- floppy valve syndrome
- ballooning mitral valve syndrome.

What are the symptoms?

Many people with MVP never get any symptoms. When symptoms do happen it's usually because blood is leaking back into the upper left chamber of the heart (regurgitation).

In severe cases, blood can leak into the lungs. Not everyone with MVP gets all the same symptoms. But symptoms can include:

- a fast heartbeat
- an irregular heartbeat
- dizziness
- trouble catching your breath
- tiredness
- chest pain
- anxiety.

If you get any of these symptoms, they will probably start off mild and get worse very gradually. If you notice any of these symptoms it's important to see your doctor.

Your doctor will listen to your heart using a stethoscope to see if there might be something wrong.

If your doctor thinks you might have MVP, you'll probably have a scan called an echocardiogram. This is an ultrasound of the heart. It helps doctors see the structures of the heart, including the valves.

If you don't have symptoms your doctor will reassure you that your condition does not need to be treated. You don't need to change your lifestyle or do anything different.

But it's always a good idea to follow advice for a healthy heart, whether or not you have MVP. This means:

- not smoking
- eating healthily, and
- taking regular exercise.

And if you notice any new symptoms, see your doctor.

What treatments work?

Most people with MVP don't need any treatment. But if your condition gets worse and you get symptoms you may need to take medicines. And some people need surgery.

Mitral valve prolapse

Medicines

If you have MVP and get a fast or irregular heartbeat or get anxious, your doctor might advise you to avoid or cut down on caffeine and alcohol to see if this helps.

If this doesn't help, your doctor might prescribe a type of medicine called a **beta blocker**. These medicines help your heart beat more slowly and with less force. They also help to relax your blood vessels. All these things can help you feel less anxious.

Your doctor might prescribe a type of drug to make your blood less likely to clot. These are called blood-thinning drugs. They reduce your chance of having a stroke or mini-stroke (called a transient ischaemic attack or TIA).

You might need one of these blood-thinning drugs if you:

- have ever had a mini-stroke or a stroke, or
- have a heart condition called atrial fibrillation (where your heart beats in an irregular way and usually very quickly).

Commonly used blood-thinning drugs are aspirin and warfarin. If you are prescribed warfarin you will need to follow your doctor's instructions carefully and have regular blood tests.

Surgery

If blood leaks back to the upper chamber of your heart (regurgitation) and this is severe you may need surgery on your mitral valve.

The surgeon will repair the valve if possible. But if this can't be done he or she will replace the valve with an artificial one. Artificial valves are made of metal or of animal tissue (for example, from a pig's heart valve).

Surgery should help to stop your heart getting weak. It should also reduce the chance of problems that can come with severe regurgitation.

Surgery on the mitral valve is a major operation. You will have a general anaesthetic, so you will not be awake during the operation. Most mitral valve operations are done using open surgery, when the chest is cut open.

It takes a long time to recover from this open surgery, because the bone in your chest needs to heal. But keyhole surgery (also called thoracoscopic surgery), which uses several small cuts instead of one large one, is becoming more common.

What will happen to me?

The outlook for people with MVP is very good. Most people with MVP don't have any symptoms or need any treatment. And having MVP doesn't affect how long you're likely to live.

But complications can happen, especially if you're middle aged or older. If you have severe regurgitation you could get heart failure, which means your heart can't pump properly. But surgery can repair the valve so that this doesn't happen.

Mitral valve prolapse

If you have a faulty valve, as is the case with MVP, there's a chance that the lining of the valve could get infected. This is called endocarditis.

To help prevent this, doctors used to offer antibiotics to people with MVP before some dental and medical procedures. But this is no longer thought to be routinely necessary.

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