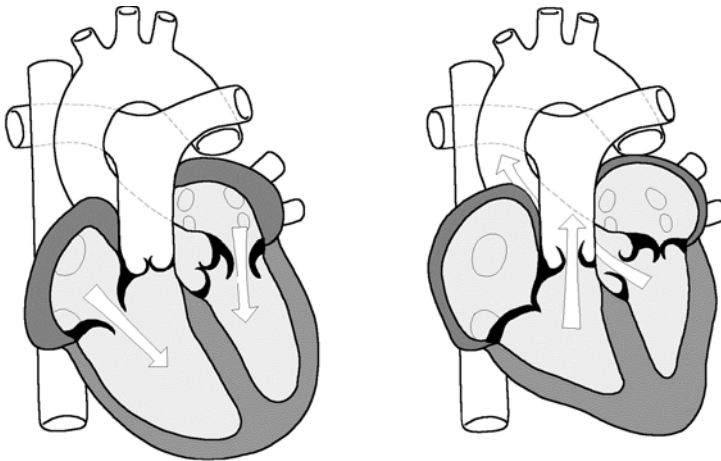


WHAT IS HEART VALVE DISEASE?

HEALTHY HEART VALVES

Your heart consists of 4 chambers. In each of these chambers is a one-way opening called a valve that helps control the flow of blood through each chamber. When the valve is open the blood flows through. When the valve is closed it prevents the blood from leaking backwards. In this way, valves keep blood flowing in the right direction.



PROBLEMS WITH A VALVE

If you are having symptoms from a problem valve, it may not be opening wide enough, closing tightly enough, or both. When any of these happen, not enough blood gets sent to the body. The heart starts to work harder at first, but that doesn't last long. The extra work the heart has to do can lead to heart failure. Heart failure is when the heart cannot pump enough blood to meet the body needs.

STENOSIS

If a valve doesn't open all the way, it is called stenosis. This can be caused by a build up of calcium on the valve or leaflets that get stuck together. Either way, the heart has to work very hard to get the blood through a smaller opening.

REGURGITATION

A valve that doesn't close all the way can cause regurgitation (or insufficiency). Sometimes the leaflets don't fit well together or the structures that hold them are torn. The blood leaks back into the chamber overloading the heart.

POSSIBLE SYMPTOMS

Some people can live years without any symptoms from a problem valve. It may come on so slowly that you may not be aware of any symptoms. Other times the symptoms can occur suddenly. Some of the symptoms include:

- Difficulty breathing when lying down
- Pain, pressure and/or tightness in the chest or arm (angina)
- Feeling dizzy or lightheaded
- An increased feeling of tiredness, especially as the day goes on
- Waking up during the night with shortness of breath or coughing
- A fluttering in your chest or a fast, pounding, irregular heartbeat
- Swollen ankles or feet

CAUSES OF VALVE PROBLEMS

People of different ages can be diagnosed with valve problems but it is not always easy to identify why. Some common causes are:

- Buildup of calcium or scar tissue on a valve
- Rheumatic fever or other infections
- High blood pressure
- Coronary artery disease

SURGERY FOR VALVE PROBLEMS

Your heart is reached the same way as for coronary artery bypass surgery. A heart and lung bypass machine will help oxygenate your body during the surgery. You will have an incision in the center of your chest and your breastbone will be divided to gain access. The breastbone is wired back together after surgery and takes 6-8 weeks to heal.

If your surgeon is going to reach your heart by a different method, he or she will discuss it with you.

THREE WAYS TO TREAT A VALVE PROBLEM

There are three different ways to treat a valve problem. Your surgeon will discuss with you the best way for your condition. In some cases the treatment may need to change once surgery has begun.

Repair of the Valve

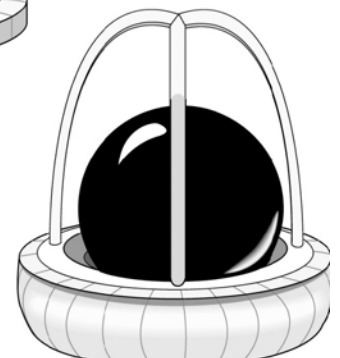
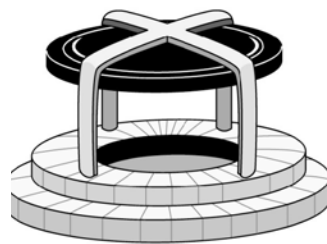
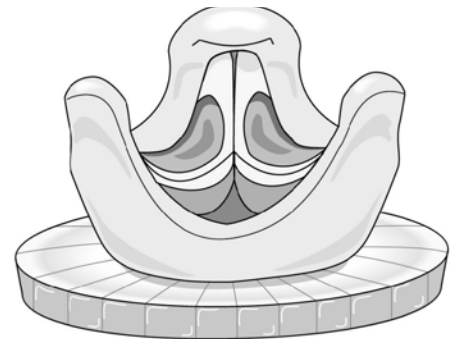
Sometimes the surgeon may decide that the valve can be repaired instead of replaced. The most common repair is a ring that helps reshape the valve. Another repair is to cut tissue to let the leaflets open or close better.

Replacement with a Mechanical Valve

A mechanical valve is made from metal or hard carbon and can last for decades. Blood tends to stick to these materials and can cause clots. Because of this you will have to take a blood thinner, usually Coumadin, for the rest of your life.

Replacement with a Tissue Valve

A tissue valve is made out of tissue from a pig or cow. They usually do not last as long as a mechanical valve and may have to be replaced sooner. The advantage is that blood does not stick to tissue valves as easily so you won't need to take a blood thinner for the rest of your life. Daily over-the-counter aspirin is usually enough.



MEDICATION TO PREVENT CLOTS

You will most likely be sent home with a blood thinner called Coumadin (warfarin). If you received a mechanical valve, you will probably have to take Coumadin for the rest of your life.

- Take your Coumadin at the same time each day. If you miss a dose, take the next one at the regular time. Never double up on doses.
- Check with your healthcare provider before taking aspirin, aspirin-containing medications, Ibuprofen or vitamin or herbal supplements.
- While on Coumadin, if you bleed it will take longer to stop. Avoid sharp tools, going barefoot, non-electric razors or anything else that may cause bleeding.
- Go for your blood tests as ordered. These tests are needed to be sure you are getting the correct dosage.
- Some foods are high in vitamin K, which can interfere with how the blood clots. Broccoli, spinach, collard greens, and most dark green, leafy vegetables contain vitamin K. If you eat a lot or a little of these foods, eat the same amount every day.