



Understanding Heart Valve Surgery

Partners at *Heart*



ST. JOSEPH
MERCY HOSPITAL

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Port Huron
Hospital



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THE HEART VALVES

There are four valves that control the flow of blood through the four chambers of the heart. They are like one-way doors that keep the blood moving in one direction and prevent it from backing up into the chamber from which it came. When the heart beats, the valves close to keep the blood from flowing backward.

WHAT CAUSES A HEART VALVE PROBLEM?

The job of the four valves is to ensure that the blood flows forward as your heart contracts and relaxes. The valves are made of thin but extremely strong flaps of tissue that open and close as your heart beats. A human heart beats more than 100,000 times a day.

The valves must flex, stretch and hold back pressure hundreds of millions of times in an average lifetime. As we age the valves can weaken and harden.

The mitral and aortic valves on the left side of the heart are most commonly affected by aging because pressures are higher on the left side. The right heart valves can be damaged by infection or by back-pressure from the lungs because of lung disease. When disease causes the valves to harden and weaken, they will not open properly and the blood flow is blocked.

UNDERSTANDING HEART VALVE SURGERY

Heart valve repair and heart valve replacement operations have become very common. These operations are designed to improve the health, quality and longevity of life for those who have heart valve disease.

There are several things that can cause problems with your heart valves. A heart valve may have a mild defect at birth that will slightly weaken the valve and affect blood flow. Over time, this leads to failure of the valve. Diseases like rheumatic fever or bacterial infections may scar or destroy the valve. Aging and normal wear and tear of tissues will weaken or harden heart valves. Your heart valves have been opening and closing with each heart beat for your entire life. Some wear and tear is to be expected.

WHAT IS HEART VALVE SURGERY?

Heart valves may either be repaired or replaced, depending on the damage. Sometimes the surgeon can restore the valve to function normally by remodeling the tissue—removing stretched tissue or sewing the edges. Prosthetic or artificial rings are used to narrow a dilated valve and to reinforce valve repairs. One advantage of a heart valve repair operation is that a person's own valve tissues remain.

Heart valves that are seriously deformed or degenerated cannot be repaired. The old valve is removed and replaced with a new valve. The new valve is attached by sewing it to a rim of tissue kept from the original valve. There are different types of valve mechanisms in two categories — tissue valves and mechanical valves.

HOW DO I PREPARE FOR HEART VALVE SURGERY?

Feeling anxious is very natural when considering any type of operation. You may reduce your anxiety by resting, eating well, limiting exercise, and talking to the health care professionals who are handling your case. Having the procedure explained to you, voicing your concerns, and getting your questions answered will help put you at ease.

Dental clearance is part of preparing for valve surgery. Bacteria around the teeth and gums can cause an infection in the valve. You will need to see your dentist if you have not seen one in the last six months.

Being well informed will help you feel more relaxed as the procedure draws near. We have videos that explain the procedure in detail. It is best to get specific information about your own case from your doctor.

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WHAT ARE THE RISKS?

There is a small risk of:

- ▶ Stroke
- ▶ Bleeding
- ▶ Infection
- ▶ Heart attack
- ▶ Kidney failure
- ▶ Death

After careful review of your medical history and a physical exam, your surgeon will identify your risks.

WHAT HAPPENS AFTER SURGERY?

After you are discharged from the hospital, you will have regular visits with your surgeon and cardiologist.

Eating nutritious meals is very important to your healing. Limiting how much salt you eat is often advised after heart valve surgery.

If you smoke, you are strongly urged to give up tobacco products.

Following a gradual exercise program may help you have a quicker recovery.

You will discuss with your surgeon when you can resume driving, return to work, and with what limitations. Your doctor will also discuss your medications. You may be taking a blood thinner after heart valve surgery. Your blood will be tested frequently to regulate the dose of blood thinner you take. Over-the-counter medications will need your doctor's approval.