

# Surgical Valvuloplasty

## What is surgical valvuloplasty?

This type of valvuloplasty is a heart valve procedure in which your healthcare provider repairs one or more valves in your heart by surgery.

## When is it used?

Your healthcare provider may perform this procedure if you have one or more valves that do not work well. They may be scarred, they may leak, or they may not close or open all the way. The defective valves may disrupt the flow of blood to your lungs or body.

Before surgical valvuloplasty, your healthcare provider may recommend that you have a heart catheterization.

Surgical valvuloplasty is used when:

- drugs are no longer effective
- it is not necessary to replace the valve
- when balloon valvuloplasty (a procedure in which a balloon on the tip of a catheter is used to make the valve open wider) is not an option.

## How do I prepare for surgical valvuloplasty?

If you need a minor pain reliever in the week before surgery, choose acetaminophen rather than aspirin, ibuprofen, or naproxen. This helps avoid extra bleeding during surgery. If you are taking daily aspirin for a medical condition, ask your provider if you need to stop taking it before your surgery.

Plan for your care and recovery after the operation. Allow for time to rest and try to find people to help you with your day-to-day duties.

Follow any instructions your healthcare provider may give you. Do not eat or drink anything after midnight before the procedure. Shower and wash your hair with a special anti-infective soap the night before the procedure. Follow your provider's instructions about not smoking before and after the procedure. Smokers heal more slowly after surgery. They are also more likely to have breathing problems during surgery. For this reason, if you are a smoker, you should quit at least 2 weeks before the procedure. It is best to quit 6 to 8 weeks before surgery. Also, your wounds will heal much better if you do not smoke after the surgery.

## What happens during the procedure?

The healthcare provider will give you general anesthesia. A general anesthetic will relax your muscles and put you in a deep sleep. It will prevent you from feeling pain during the operation.

Your surgeon will make a cut in your chest and divide your sternum, which is the flat bone in the center of the chest. He or she will connect you to a heart-lung machine that will take over the work of your heart and lungs during the operation. The surgeon will then stop your heart, make a cut in it to expose the valve, and repair your valve.

The doctor will then close the cut in your heart and restart your heart. He or she will take you off the heart lung machine and close the cut in your chest by wiring together your sternum (breastbone) and then close the skin with stitches. The doctor may leave some tubes in the cut to drain any blood or fluid.

### **What happens after the procedure?**

You may stay in the hospital for 3 to 10 days, depending on your condition. You will be in an intensive care unit (ICU) or intermediate care unit for several days for observation and monitoring. An electrocardiogram (ECG) will record the rhythm of the heart.

You will receive respiratory therapy to prevent any complications in your lungs such as a collapsed lung, infection, or pneumonia. A nurse or therapist will administer therapy every few hours. It is very important to cooperate and ask for pain medication if you need it.

Therapy may include:

- deep breathing exercises
- coughing while holding a pillow against your chest to protect your breastbone
- chest percussion, which is a gentle slapping on the back to help loosen lung secretions that may have accumulated after surgery
- moving your legs to reduce the chance of blood clots.

While in the ICU, you may have the following tubes in your body to help in recovery:

- a breathing tube in your mouth extending into your lungs connected to a ventilator to help you breathe
- a tube through your nose down to your stomach to drain out natural fluids that may cause discomfort when you are not eating
- a bladder catheter to empty your bladder
- intravenous tubes in your arms or possibly near your

- collarbone for fluids, nutrition, and medications
- chest tubes to drain blood from your chest cavity and to help detect any excessive bleeding in your chest
- an arterial line in your forearm to measure the pressure of the blood flowing through the arteries.

When you have recovered enough, your tubes will be removed and you will go to an intermediate care unit until you are ready to leave the hospital. You will participate in physical therapy that includes walking around the hospital and other activities. You will be taught how to move your upper arms without hurting your breastbone, and you will receive additional respiratory therapy. Occupational therapy will help you learn how to take it easy while doing daily activities.

Ask your healthcare provider if you should take antibiotics before having dental work or procedures that involve the rectum, bladder, or vagina. Ask your provider what other steps you should take and when you should come back for a checkup.

### **What are the benefits of this procedure?**

Your heart may work better and let you live a more normal life.

### **What are the risks associated with this procedure?**

- Depending on your age and the condition of your heart, there is about a 2% to 10% risk of death from this operation.
- There are some risks when you have general anesthesia. Discuss these risks with your healthcare provider.
- There is a risk of infection or bleeding from this procedure.
- The repaired valve may not work as well as planned, or the repair may not last.
- This operation may need to be repeated or you may need to have the valve replaced.

You should ask your healthcare provider how these risks apply to you.

### **When should I call my healthcare provider?**

Call your healthcare provider immediately if:

- You develop a fever.
- You become short of breath.

- You have a lot of chest pain.
- You notice swelling in your legs or ankles.

Call your healthcare provider during office hours if:

- You have questions about the procedure or its result.
- You want to make another appointment.

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