



Education

Balloon Valvuloplasty

What is balloon valvuloplasty?

Valvuloplasty is a procedure in which your health care provider uses a balloon to stretch a heart valve or break up scars in a valve that keep the valve from opening all the way. The procedure can fix some valve problems without the need for surgery. Heart valves direct the flow of blood through the chambers of the heart and to the rest of the body.

When is it used?

You may need this procedure if you have a scarred valve that blocks the flow of blood to the lungs, to other chambers of the heart, or to the body. This procedure is not the answer for all people with blocked valves.

Alternatives to this procedure include repairing or replacing the valve with open-chest surgery. Ask your health care provider about these choices.

How do I prepare for valvuloplasty?

Plan for your care and recovery after the operation. Come to the hospital prepared to stay for a day or two.

Before the procedure tell your health care provider if you have had any kidney problems or reactions to iodine-containing foods or chemicals, such as seafood or kidney contrast dye.

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

Follow your health care provider's instructions. Do not eat or drink anything after midnight and the morning before the procedure. Do not even drink coffee, tea, or water. Follow your provider's instructions about not smoking before and after the procedure.

What happens during the procedure?

You will be given a sedative to help you relax. A local anesthetic will be injected into your groin to help keep you from feeling pain.

Your health care provider will put a needle into a groin vein or artery, depending on which heart valve has the problem, and guide a small catheter into the blood vessel. A catheter is a long tube used to inject fluid, introduce other catheters and instruments, and measure blood pressure.

Your provider will guide a wire within the small catheter into your heart and through the problem valve. Then the first catheter will be removed and a larger balloon catheter will be guided through the blood vessel over the wire. Your health care provider will inject a contrast dye into the balloon so that it shows up with x-rays. Using these x-ray images, your health care provider will check if the balloon is in the right place. Inflating the balloon makes the valve opening larger.

When the balloon is inflated, you may feel some temporary pain. This is not uncommon, but you should tell your health care provider. This process may be repeated several times until the valve opening is the right size. Then your provider may replace the large catheter with the smaller one and inject dye through the catheter. The smaller catheter may be used to measure the pressure in your blood vessels again and take another x-ray.

The catheter and the wire will be removed and pressure applied over your groin to control any bleeding.

What happens after the procedure?

You will be taken to a bed in the coronary care unit or the intensive care unit, where you will be carefully watched overnight. Your heart will be monitored for at least 24 hours. Your blood pressure and groin sites will be checked often for several hours.

While recovering from the procedure, don't bend your legs where the catheters were inserted and don't sit upright in bed or try to get out of bed. If you need to move, ask a health care provider to help you. Being careful with your movements will help prevent bleeding from the catheter sites.

The next morning the IV drips (lines into the vein) may be stopped. After the lab checks how well your blood is clotting, the catheter may be removed. After the catheter is removed, your health care provider will put firm pressure on the site for about 20 minutes. A small sandbag may be placed over the puncture site for about 6 hours to help the artery heal.

After the sandbag is removed, a health care provider will help you walk around the room. Sometime after this, you will be transferred from the coronary care unit or intensive care unit to a regular room. You will be encouraged to walk around the room to prepare for discharge. The entire stay in the hospital may last 1 to 3 days, based on your condition.

Ask your health care provider if you should take antibiotics before having dental work or procedures that involve the rectum, bladder, or vagina.

Ask your health care provider what other guidelines you should follow and when you should come back for a checkup.

What are the benefits of this procedure?

Your heart may work normally again. You may avoid having open-chest surgery.

What are the risks associated with this procedure?

- A local anesthetic may not numb the area quite enough and you may feel some minor discomfort. Also, in rare cases, you may have an allergic reaction to the drug used in this type of anesthesia. Local anesthesia is considered safer than general anesthesia.
- There is a risk of infection or bleeding from this procedure.
- Your heart may beat in an unusual way. You may need medicine, electrical cardioversion, or a temporary pacemaker.
- You may have an allergic reaction to the dye. You could become nauseated or flushed. If your kidneys are not working well, the dye may make them worse.
- Blood may form a clot around the catheter. The clot could block the artery through which your health care provider is inserting the catheter. You may need surgery to reopen the artery.
- You may form a clot where the catheter was inserted and lose the pulse in your groin. This may pose a threat to the circulation in your leg. You may be given medicine to dissolve the clot or, rarely, surgery may be needed to remove the clot.
- The valve may tear when the balloon is inflated. This may require valve-replacement surgery. The catheter may puncture a vein or artery, or the heart itself, and cause internal bleeding. Such a problem may require surgical repair.
- When the catheter is inserted, debris on the wall of the artery may become dislodged and pass down your artery, causing a stroke or other blockage. You may need surgery if this happens.
- There could be some bruising or bleeding at the site where the catheter was inserted.
- During the procedure, your blood pressure could drop, causing dizziness or heart rhythm disturbances.
- There is a chance the procedure might not work.

There is risk with every treatment or procedure. Talk to your provider for complete information about how the risks apply to you.

When should I call my health care provider?

Call your health care provider immediately if:

- You develop a fever.
 - You become short of breath.
 - You have a lot of pain.
-

Call your health care provider during office hours if:

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

Cardiology Advisor 2006.4; Copyright © 2006 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved. Developed by McKesson Provider Technologies. This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

