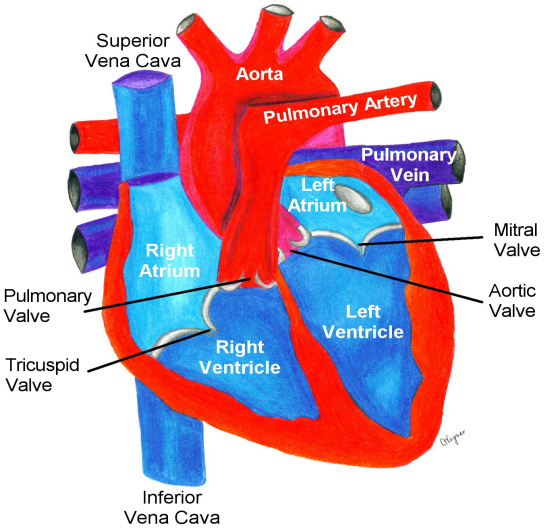
Valvuloplasty

Valvuloplasty is a procedure performed to repair and improve heart valve function. The heart has four chambers, two atria (upper chambers) and two ventricles (lower chambers). The heart has valves that are in between the atria and ventricles. These valves act like doors between the chambers and help control blood flow within the heart. The valves can become narrow (*stenosis*) and stiff, which does not allow them to work properly. Stenosis can occur from disease, age, calcium deposits, or infection. Valvuloplasty is performed to enlarge the narrowed opening of the valve(s) so better blood flow can pass between the atria and ventricles. Valvuloplasty is performed like a heart catheterization, which is done through a large blood vessel in the groin. Not all valves or patients are appropriate candidates for this procedure. Sometimes, open heart surgery may be necessary if the valve cannot be fixed by valvuloplasty.



BEFORE THE PROCEDURE

Your caregiver will explain the procedure, including risks and will answer any questions you have. A consent form will need to be signed so valvuloplasty can be performed. Jewelry or other objects that may interfere with the procedure will need to be removed. This may include dentures or hearing aids. Do not eat or drink anything for 8 hours before the procedure or as your caregiver suggests. Talk to your caregiver about which prescription medicines you should take. A special prep may be done around your groin, which may include shaving your groin. Your caregiver may also discuss the type of anesthesia that may be used based on your medical history. A sedative may be given before the procedure to help you relax.

LET YOUR CAREGIVER KNOW ABOUT:

- Allergies to dyes, iodine, shellfish, and latex.
- All medicine taken including herbs, eye drops, prescription medications, over-the-counter medications, and creams.
- Use of steroids (by mouth or creams).
- Use of aspirin or blood-thinning medicines.
- History of bleeding or blood problems.
- Previous problems with anesthetics or numbing medicine (*Novocaine*).
- Possibility of pregnancy if this applies.
- History of blood clots (*thrombophlebitis*).
- Previous surgery.
- Other health problems such as kidney failure.
- Implanted pacemaker.

VALVULOPLASTY PROCEDURE

A local anesthetic will be injected into your groin (upper thigh). The surgeon will then make a small cut (*incision*) in your groin. A long, thin tube called a catheter will be passed through the groin incision and into a large blood vessel. Live x-ray pictures (*fluoroscopy*) will be used to guide the catheter as it is advanced into the heart. When the catheter reaches the valve that needs to be fixed, contrast dye may be injected through the catheter so the area is better seen.

Then, a catheter with a balloon-tip is slowly advanced with fluoroscopy to the stenosed valve. The balloon tip catheter is then inflated and deflated to open the valve. When the valve is are sufficiently opened, the catheter will be removed and the insertion site will be closed.

RISKS & COMPLICATIONS OF THE PROCEDURE

- Infection and bleeding at the catheter insertion site.
- Blood clot or damage to the blood vessel at the catheter insertion site.
- Allergic reaction to the dye.
- Abnormal heart beat (*rhythm*).
- Rupture of the valve.
- Heart attack.
- Stroke.

AFTER THE PROCEDURE

- A sterile dressing is placed over the incision site to keep it clean and dry.
- The leg that has the incision site must not be bent. You will be on bed rest for 4-12 hours depending on your condition.
- You may need to use a bedpan or urinal while on bed rest, as your affected leg should not be bent.
- You may have to stay in the hospital for a few days depending on your condition.
- Medicine can be given to control any pain that you may have.
- You will be asked to drink fluids so the contrast dye is flushed out of your body.
- Your caregiver may advise regular follow-up visits to assess your condition.

HOME CARE INSTRUCTIONS

- Monitor the catheter insertion site for swelling, redness, pain, bleeding, discoloration, and/or change in temperature.
- Keep the catheter insertion site clean and dry.
- Follow the specific bathing instructions given by your caregiver.
- Do not engage in strenuous activities like heavy lifting.
- Follow your caregivers instructions regarding your diet.
- Follow your caregivers instructions regarding resumption of work schedule and other normal activities.

SEEK MEDICAL CARE IF:

- You develop fever above 100°F.
- You have chills.
- You have pain, redness, and swelling at the insertion site.
- You have bleeding or other drainage from the insertion site.
- You have nausea and vomiting.

SEEK IMMEDIATE MEDICAL CARE IF:

- You develop fever (102°F or above).
- You have profuse bleeding from the insertion site that cannot be controlled.
- You have chest pain.
- You have increased sweating.
- You have dizziness and/or fainting.

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