Why Do I Need Heart Valve Surgery?

Heart valve surgery is done to replace or repair heart valves that aren’t working correctly. Most valve replacements involve the aortic and mitral valves. The aortic valve separates the left ventricle (your heart’s main pumping chamber) and the aorta (the major artery that carries blood to your body from the heart). The mitral valve separates the left atrium from the left ventricle.

What do heart valves do?
The four valves in your heart are made of thin (but strong) flaps of tissue that open and close as your heart pumps. They make sure blood flows forward through your heart.

What are the types of valve problems?
Many heart valve problems are identified by the presence of a murmur. Some murmurs are harmless. Others can indicate a valve problem.

Valve problems include:
- **Stenosis** — a narrowing or stiffening of the valve that prevents enough blood from flowing through.
- **Regurgitation** — valves don’t close properly and allow blood to flow backward where it shouldn’t.
- **Prolapse** — the valve leaflets (or flaps) don’t close properly causing a small leak.
- **Atresia** — the valve is not properly formed or is missing from birth.

Heart valve problems make the heart work harder. Over time this can lead to heart failure.

What causes heart valve problems?
- **Congenital defects.** A heart defect present at birth that’s not repaired may get worse later in life and cause problems.
- **Aging and age-related valve disease.** Heart valves can weaken or harden as you get older. Childhood cancer survivors who had radiation therapy are at greater risk of valve disease later in life.
- **Illnesses and conditions.** Certain heart conditions including infective endocarditis, rheumatic fever, heart attack, poorly controlled high blood pressure and heart failure can scar or damage a valve.

What can be done?
- **Yearly check-ups** with your health care provider or specialist, living a healthy lifestyle and medication may be all that’s needed.
- **In some cases, surgery** may be needed to repair a damaged valve.
- **Sometimes the valve** must be removed and replaced with a new one. Your doctor can help you understand the best option for you.

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What are the options for valve replacement?

Many things must be considered when choosing the best option for heart valve replacement. Factors include your age, extent of the valve disease, the size of the valve, and willingness to take certain medications. Talk to your doctor about the best option for you.

- **Tissue valves** may come from human or animal donor tissue and can last 10 to 20 years.
- **Mechanical valves** are made of durable, long-lasting materials. Most people with mechanical valves must take blood thinning medicines to prevent blood clots for the rest of their lives.
- **The Ross Procedure** uses your own pulmonary valve to “swap out” for your damaged aortic valve. Then, the pulmonary is replaced with a donor valve.
- **TAVI (or TAVR)** stands for transcatheter aortic valve implantation/replacement. It is a minimally invasive procedure. A catheter (a thin wire or tube) is threaded through an artery to place a new valve inside the diseased valve. Once the new valve is expanded, it pushes the old valve leaflets out of the way and takes over managing blood flow.
- **Newer surgery options** include other minimally invasive surgeries such as video-assisted surgery, robotic-assisted surgery or surgeries performed with an endoscope.

What about recovery and follow-up?

The normal recovery time is usually four to eight weeks. It may be shorter after minimally invasive procedures. Your successful, long-term recovery depends on several things. You should:

- be physically active.
- follow a healthy eating plan.
- take prescribed medications.
- not smoke.
- get regular medical checkups.
- follow your health care providers’ advice.

Your valve repair or replacement, coupled with these things, should improve the quality of and lengthen your life.

**MY QUESTIONS:**

- **Do you have questions for your doctor or nurse?**
  Take a few minutes to write down your questions for the next time you see your health care provider.

  **For example:**
  **Will my artificial valve cause problems?**
  **When can I go back to work?**

  We have many other fact sheets to help you make healthier choices to reduce your risk, manage your condition or care for a loved one. Visit [heart.org/AnswersByHeart](http://heart.org/AnswersByHeart) to learn more.