

How can you prepare for surgery?



One way to learn more about your surgery is to ask your doctor and care team questions.

Here are some questions you may want to ask your care team:

- What medical and surgical options are available for me?
- Which is best for my situation?
- What are the differences between open, thoracoscopic, and robotic-assisted surgery?
- Should I get a second opinion?
- What am I likely to experience after surgery?
- If I decide to have surgery, how can I prepare for it?
- What is your surgical training and experience? What is your experience with robotic-assisted surgery?
- What are your patient outcomes?

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What is mitral valve surgery?

Mitral valve surgery is surgery to repair or replace the mitral valve in your heart.

The main types of mitral valve surgery include:

- Mitral valve repair (a procedure to rebuild or reshape the existing mitral valve)
- Mitral valve replacement (a procedure to replace the mitral valve)

A minimally invasive option is transcatheter mitral valve repair where the surgeon uses a catheter through a small incision in the groin.

If you have been diagnosed with mitral valve disease, you should discuss all options with your doctor, including surgery.

If you are a candidate for surgery, your surgeon may recommend:



Open surgery

Surgeon makes an incision in your chest large enough to see the heart and performs the procedure using hand-held tools



Thoracoscopic surgery

Surgeon makes a few small incisions in the chest and operates using special long-handled tools while viewing magnified images from the laparoscope (camera) on a video screen



Robotic-assisted surgery

Surgeon controls the da Vinci system to perform the procedure

References

1. Roles of Your Four Heart Valves. American Heart Association. Web 11 May 2020. <https://www.heart.org/en/health-topics/heart-valve-problems-and-disease/about-heart-valves/roles-of-your-four-heart-valves>
2. Symptoms of Heart Valve Problems. American Heart Association. Web 27 April 2020. <https://www.heart.org/en/health-topics/heart-valve-problems-and-disease/heart-valve-problems-and-disease-risks-signs-and-symptoms/symptoms-of-heart-valve-problems>
3. Understanding Your Heart Valve Treatment Options. American Heart Association. Web 27 April 2020. <https://www.heart.org/en/health-topics/heart-valve-problems-and-disease/understanding-your-heart-valve-treatment-options>

Surgical Risks

Risks associated with mitral valve repair surgery (surgery on an abnormal/leaking mitral valve) include: repair fails requiring another operation, stroke caused by a clot that gets stuck in smaller arteries of the brain, heart failure (heart cannot pump enough blood to the body), tear in the aortic wall causes it to separate, lengthy time on a breathing machine of 48 hours or more, lengthy time on a heart lung machine, extracorporeal membrane oxygenation (outside body technique to provide cardiac and respiratory support), intraaortic balloon pump (mechanical device to increase oxygen to cardiac muscles) or other cardiac assist systems, fluid in the lungs, sudden lack of blood flow to a limb due to a block in the blood stream, valve infection, irregular heartbeat that requires a pacemaker, sac-like cover around the heart becomes swollen and causes a low fever and chest pain for up to 6 months or more, bleeding disorder in which the blood cannot properly clot, heart attack, headache, memory loss and/or loss of mental clarity, infections which may affect the kidneys, chest, valves or bladder, cut in the major artery(ies) that sends blood to the pelvis and legs, pooling of blood between the chest wall and lung, pressure on the heart when blood/fluids build up between the heart muscle and its outer sac, injury

to circumflex coronary artery (blood vessel to heart), inadequate closure.

Important Safety Information

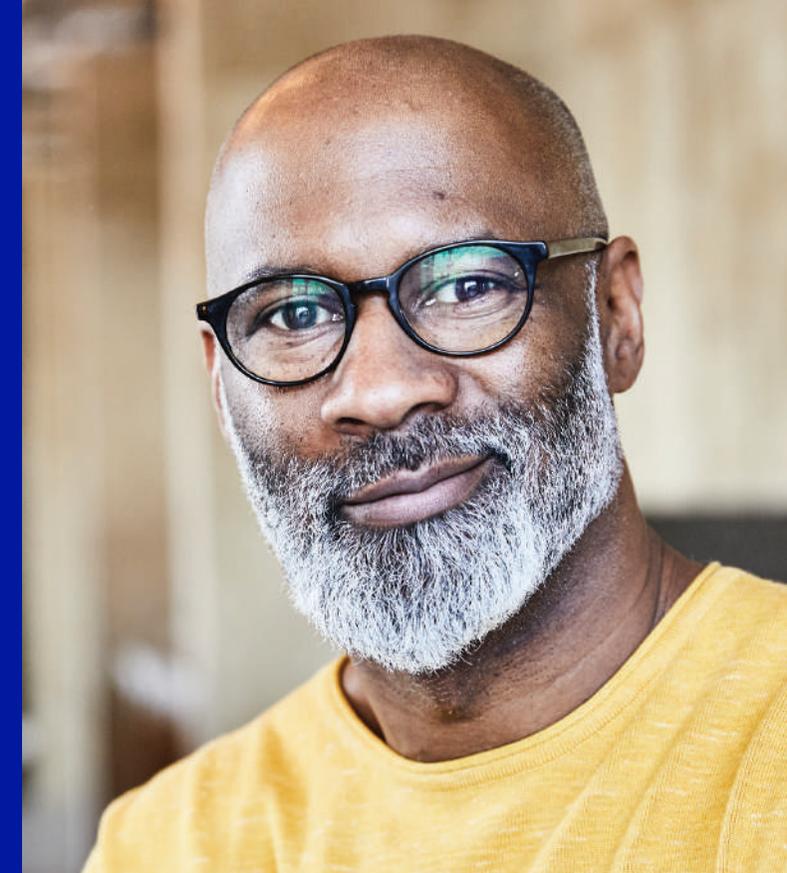
Patients should talk to their doctors to decide if da Vinci Surgery is right for them. Patients and doctors should review all available information on nonsurgical and surgical options and associated risks in order to make an informed decision.

Serious complications may occur in any surgery, including da Vinci[®] Surgery, up to and including death. Serious risks include, but are not limited to, injury to tissues and organs and conversion to other surgical techniques, which could result in a longer operative time and/or increased complications. For important safety information, including surgical risks, indications, and considerations and contraindications for use, please also refer to www.intuitive.com/safety.

Individuals' outcomes may depend on a number of factors, including but not limited to patient characteristics, disease characteristics and/or surgeon experience.

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Get back into the rhythm of life

Understand if mitral valve surgery is right for you.

INTUITIVE maker of da Vinci

Is it time for surgery?

Within your heart, the mitral valve opens and closes to let blood move from the top left chamber (left atrium) to the lower left chamber (left ventricle).¹ If the mitral valve doesn't work properly, you might feel short of breath or lightheaded. You may tire easily, have irregular heartbeats, or notice swelling in your feet or legs. Some people have no symptoms. Others may not notice any symptoms, because their heart works harder over time to make up for their valve disorder.²

Some people live with mild mitral valve disorders, but once the heart valve begins to affect the heart's ability to pump blood, doctors may recommend surgery to repair or replace the mitral valve.³ If your doctor suggests robotic-assisted mitral valve surgery with da Vinci® technology, this brochure can help you understand what that means.

What will my surgeon do?



If you and your doctor decide that robotic-assisted surgery is right for you, here is what may happen.

Actual incision size

During robotic-assisted surgery with the da Vinci system, your surgeon makes a few small incisions, then uses a 3DHD camera for a crystal-clear, magnified view of your heart.



He or she sits at a console next to you and operates through the incisions using tiny instruments and the camera.



The da Vinci system translates every hand movement your surgeon makes in real time, bending and rotating the instruments so he or she can fix your mitral valve.

What is the da Vinci system?

It is a surgical system with three parts:

Surgeon console

Is the control center where your surgeon sits to perform the operation.

Patient cart

Holds the camera and surgical instruments your surgeon controls from the console.

Vision cart

Manages the communication between all the system components and provides a screen for the care team to view the operation.

What are the outcomes?

Be sure to talk with your surgeon about the surgical outcomes he or she delivers using the da Vinci system, as every surgeon's experience is different. For example, ask about:

- Length of hospital stay
- Mitral valve repair success rate
- Complication rate
- Chance of switching to an open procedure
- Length of surgery

There are additional outcomes of surgery that you may want to talk with your doctor about. Please ask him or her about all important outcomes of surgery.

To find out more about surgery with the da Vinci system, visit the Cardiac pages on www.davincisurgery.com.



Get back to what matters most.

