Facing Mitral Valve Surgery?

Learn why ***da Vinci*® Surgery** may be your best treatment option for mitral valve prolapse.

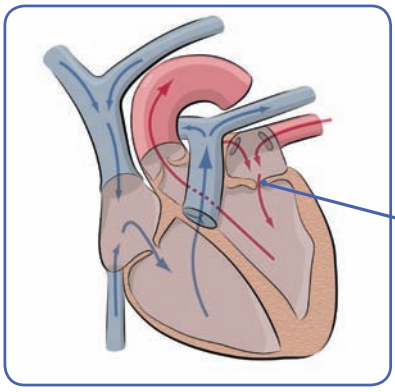
da Vinci Surgery

The Condition(s):
Mitral Valve Prolapse

The mitral valve consists of two flaps that control blood flow. When it opens, it allows blood to flow into the heart's main pumping chamber. When this chamber contracts, the mitral valve closes to prevent blood from flowing backwards.

If the mitral valve flaps cannot seal the left ventricle, some blood flows back into the atrium. This is called regurgitation or prolapse, and it can make the heart work harder and increase the risk of heart failure.

Sometimes the mitral valve is abnormal from birth, but it can also be damaged by infection or heart disease. It can occur in all ages, in both men and women. Many with the condition don't have symptoms, but among those who do, rapid heartbeat is reported most often. Other symptoms include shortness of breath, heart murmur, cough, dizziness, fatigue, anxiety, migraine headaches, and chest discomfort or angina.



The Treatment:

Mitral Valve Surgery

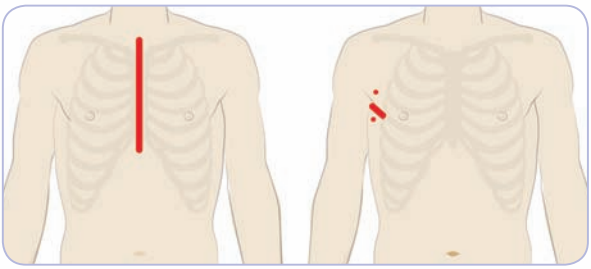
Surgery to repair or replace the valve is the main treatment for severe prolapse. The goal is to reduce symptoms and the risk for heart failure. The traditional approach for both repair and replacement is a sternotomy — a large open incision made through the breastbone to expose the heart.

For mitral valve prolapse, repair is preferred. Repair has been shown to improve survival rates. It can lower the risk of infection, and unlike replacement, it will not require lifelong use of blood-thinning medicines.[1]

The valve can also be replaced with either a mechanical valve or a biological valve taken from cows, pigs or human tissue.

Patients with mechanical valves must take blood-thinning medicines for life. Many patients with biological valves don't need blood-thinning medicines, but these valves can weaken and often only last about 10 years before re-operation is required.[1]

After open mitral valve surgery, most people spend 1 to 2 weeks in the hospital.[2] They must be monitored closely for complications and infection, and they usually experience significant pain from the incision. Complete recovery can take months, and depends on the person's health before surgery.



Open Surgery Incision

da Vinci Mitral Valve Repair Incisions

gery, individual results may vary. Surgery with the
ment options, as well as their risks and benefits.
are trademarks or registered trademarks of Intui-

da Vinci Mitral Valve Repair:
A Less Invasive Surgical Procedure

If you have been told you need surgery for mitral valve prolapse, ask your doctor if you are a candidate for minimally invasive *da Vinci* Mitral Valve Repair.

This procedure uses a state-of-the-art surgical system designed to help your doctor provide what is perhaps the most effective and least invasive treatment available today.

For most patients, *da Vinci* Mitral Valve Repair offers numerous potential benefits over open surgery, including:

- No sternotomy
- Less risk of infection[3]
- Less blood loss and need for blood transfusions[4]
- Shorter hospital stay[4]
- Significantly less pain and scarring[4]
- Faster recovery and return to normal activities[4]
- A potentially better clinical outcome

And by using *da Vinci* instead of open surgery, it is more likely that your surgeon will be able to repair your valve and avoid replacement.[5]

The Enabling Technology: *da Vinci* Surgical System

The *da Vinci* Surgical System is designed to provide surgeons with enhanced capabilities, including high-definition 3D vision and a magnified view. Your doctor controls the *da Vinci* System, which translates his or her hand movements into smaller, more precise movements of tiny instruments inside your body. Though it is often called a "robot," *da Vinci* cannot act on its own. Instead, the surgery is performed entirely by your doctor.

Together, *da Vinci* technology allows your doctor to perform complex procedures through just a few tiny openings. As a result, you may be able to get back to life faster without the usual recovery following major surgery.

The *da Vinci* System has been used successfully worldwide in hundreds of thousands of procedures to date.

[1] Ruel M, Kulik A, Rubens FD, Bedard P, Masters RG, Pipe AL, Mesana TG. Late incidence and determinants of reoperation in patients with prosthetic heart valves. Eur J Cardiothorac Surg. 2004 Mar;25(3):364-70. [2] American Heart Association. Outcomes and long-term survival for patients undergoing mitral valve repair versus replacement; Circulation. 2003;108:298. [3]A Marc Gillinov, M.D., Tomislav Mihaljevic, M.D. Minimally Invasive Mitral Valve Repair. Cleveland Clinic Heart and Valve Institute. http://my.clevelandclinic.org/heart.default.aspx. [4] Trehan, N., Mishra, Y.K., Sharma, M.,Bazaz, S.,Mehta, Y., Sharma, K.K., Shrivastava, S. Robotically controlled video-assisted port-access mitral valve surgery. 2002 Asian Cardiovascular and Thoracic Annals 10 (2), pp. 133-136. [5] Multicenter Mitral Valve Study: A Lateral Approach Using the *da Vinci* Surgical System Douglas Murphy, J. Michael Smith, Leland Siwek, David A. Langford, John R. Robinson, Branden Reynolds, Usha Seshadri-Kreaden, and Amy M.Engel, 2007.

Your doctor is one of a growing number of surgeons offering *da Vinci* Surgery for mitral valve prolapse.

For more information about *da Vinci* Mitral Valve Repair and to find a *da Vinci* Surgeon near you, visit:
www.*daVinci*Surgery.com