

Understanding your Transcatheter Mitral Valve Repair (Neochord)

What is the NeoChord DS1000® mitral valve repair procedure?

The NeoChord DS1000® is an investigational device used for patients who have mitral regurgitation. **Mitral regurgitation** is when the tiny chords (chordae) that hold the mitral valve leaflets break or stretch and prevent the valve from sealing and closing properly. This causes your valve to leak (regurgitation). During the procedure, the mitral valve is repaired by replacing the stretched or broken chords. The damaged chords are replaced with sutures (stiches) to create new chords.

How is the Neochord DS1000® valve repair system different from traditional open heart surgery?

In traditional open heart surgery, an incision is made in the center of your chest and the heart is opened to repair or replace your diseased valve. You are also placed on a heart-lung bypass machine to circulate your blood while your heart is stopped. The NeoChord procedure is performed through an incision in your left chest and does not require you to be connected to the heart-lung bypass machine.

How is the procedure performed?

The procedure is performed at the Frankel Cardiovascular Center in our hybrid operating room. A team of doctors work closely together to perform the procedure. They use a special ultrasound (trans-esophageal echocardiography) to see inside your heart and to guide the catheter during the procedure to your valve.

The following describes the procedure:

1. The doctor makes a small incision in your left chest between the ribs for access to your heart.

2. Using ultrasound guidance through the esophagus, the NeoChord device (about the size of a pencil) is inserted into your beating heart through the top of the left ventricle.
3. The device is then inserted into your mitral valve.
4. Once in place, the Neochord, a small, jaw-like device, captures the fallen portion of the valve leaflet and places a stitch in the leading edge. This creates some new artificial chordae.
5. The length of the chords are adjusted using the NeoChord system to re-establish a normal leaflet motion and fix the regurgitation.
6. Once your mitral valve regurgitation has been corrected, the artificial chordae is secured to the top of your heart with a Dacron patch.

During the procedure a temporary pacemaker catheter is placed in a vessel in your neck and threaded up into your heart and placed in the right side of the heart to help control your heart rate during the procedure. It is removed after your procedure is complete.

What are the benefits of the Neochord DS1000® mitral valve repair procedure?

With this less invasive valve procedure, you may experience the following benefits:

- Quicker return to daily activities than with open heart surgery
- Shortened recovery time
- Improved quality of life in approximately 4 weeks following the procedure, including the ability to return to normal daily activities
- Short hospital stay
- Relief of symptoms
- Reduced pain and anxiety
- Improved heart function

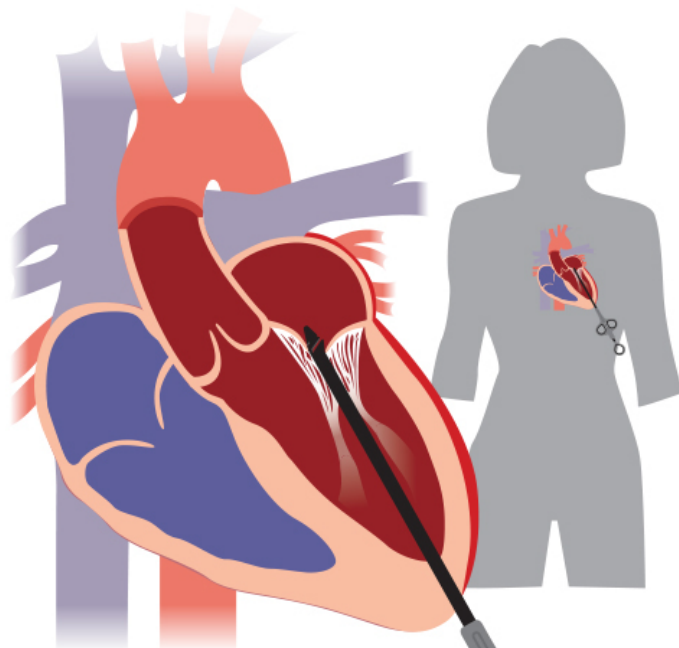
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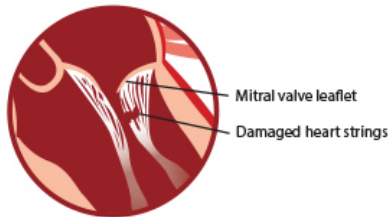
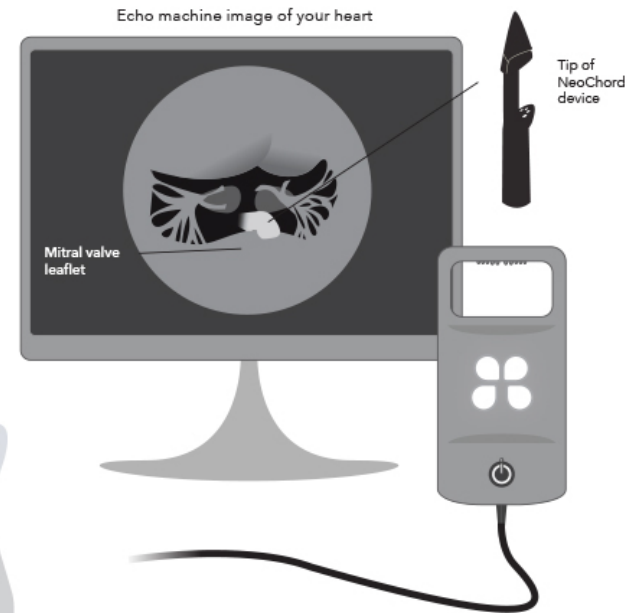
CVC Control #1202



NeoChord Artificial Chordae Delivery System

To treat your leaky mitral valve, a small hole is made between your ribs that allows your doctor to access your heart and to replace the broken heart strings.

Using an echo machine to see inside your heart, your doctor will replace the broken heart strings while your heart is beating.



1 To repair the damaged heart strings, your doctor will insert the NeoChord device and move it through the heart to your mitral valve.

2 The NeoChord device will be closed onto the leaky section of your mitral valve so that your doctor can sew new heart strings in place.

3 After your new heart strings are attached, your doctor will remove the NeoChord device from your heart.

4 Your new heart strings will remain in your heart and will keep your mitral valve functioning properly.