## The Connection Between Heart Valve Disease & Echocardiograms

Your heart valves open and close to allow blood to move from one area of your heart to another and finally to the rest of your body. When working normally, your valves make sure that blood moves in the correct direction. Heart valve disease is a condition that occurs when one or more of your four heart valves does not function well. It is usually caused by normal wear and tear, disease, or damage of the valves.

An echocardiogram (echo) is the most common test to diagnose heart valve disease. An echo is a painless test that uses an ultrasound, or sound waves, to create moving pictures of your heart. This test is an important tool to help with the early diagnosis of heart valve disease. An echo test can measure how well your heart pumps and also detect other heart issues, such as blood clots, damaged cardiac tissue, and more.

## **Did You Know?** The four valves in your heart are: Aortic Pulmonary Valve Valve Mitral Valve Tricuspid Valve

#### Who Should Get an Echo Test?

You may be a good candidate for an echo test if you have a history of heart problems or are experiencing the following symptoms:



**Shortness** of breath



Difficulty exercising



Fatigue



Syncope or light headedness



Chest tightness





## **Different Types of Echo Tests**

Not all echo tests are the same and your doctor may recommend different forms of testing depending on your symptoms. The most common types of echocardiograms are:

- Transthoracic echocardiograms (TTE): One of the most used echocardiograms. Your sonographer will use a small transducer, or probe, on the front of your chest and move it around to take pictures of your beating heart.
- Transesophageal echocardiogram (TEE): A TEE uses similar technology as a TTE. After properly numbing your throat and giving you intravenous sedation, your sonographer and doctor will attach a probe to a thin tube that passes down your throat and into your esophagus. The esophagus is close to your valves, so they will be able to obtain clear images of your heart structures and valves.
- Stress echocardiogram: Some heart conditions may be difficult to identify while you're resting and can only be seen during physical activity. An exercise stress echocardiogram assesses how well your heart responds to stress or exercise. The echocardiogram provides information about the heart's function, while the exercise test measures the performance of the heart, lungs, and blood vessels.

#### #Ask4Echo

Heart valve disease is very common; however, it is treatable with early detection. Asking your health care provider for an echo test is the first step in receiving a diagnosis. Use your smartphone to scan the QR code to learn how you can start the discussion with your health care team.









# Understanding Your Echocardiogram Results

Your echocardiogram (echo) report will describe your heart's health in detail and provide a summary of its findings. An echo report will typically use very technical terms to describe how well your heart is working. Use this resource as a guide to help you interpret the key findings in your report.

- Indication for the test Explains the reason why your doctor ordered your echo test. It is important because it helps your sonographer know what to look for and identify any abnormalities in your heart valves.
- Size and function of heart muscles Includes an assessment and description of the size of your heart chambers, as well as the appearance of your heart muscle walls. The report will also include information on how well your heart moves during a contraction and relaxation.
- **Ejection fraction (EF)** This is a measurement of the amount of blood that your heart pumps each time it beats. On your report, your EF is measured as a percentage of the total amount of blood that is pumped with each heartbeat. A normal EF is between 60 to 70 percent.
- Your Heart Valves Your report will contain a detailed description of the shape, movement, and function of your heart valves. It will also include information on how well your valves work. Common problems in the valves are stenosis, which occurs when a valve is narrowed or calcified and cannot open properly (such as aortic stenosis) and regurgitation, which occurs when blood flows backwards through the valve (such as mitral regurgitation).
- Other Findings Your echo will include other information about the structure of your heart and any abnormalities, such as blood clots. Your echo report should include comments on:
  - The size and appearance of your main blood vessels like the aorta
  - Estimate of the pressure inside the heart chambers and blood vessels supplying blood to your lungs
  - Whether or not there is buildup of extra fluid around your heart
  - Whether or not there is buildup of fluid in the space between your lungs and chest cavity
  - If there are any congenital heart abnormalities
  - If there are any blood clots or abnormal growth in the chambers of your heart

#### **Next Steps**

In many cases, an echo report will describe mild abnormalities, which may not have a major impact on your overall health. If your echo reports any significant issues with your heart valves, your doctor will discuss what this means and the next steps. In the early stages of heart valve disease, when classified as "mild" and not causing any significant symptoms, your doctor may recommend monitoring your condition for changes. However, it is important to continue to be vigilant about your heart health and take a proactive approach to care and treatment.

If you have any questions or concerns about your echo results, schedule a follow up appointment to discuss with your provider.

# Here are some suggested questions to ask your doctor:

- How severe is my diagnosis and what does that mean for my overall heart health?
- How often should I have follow-up appointments to monitor my heart valves?
- What is the long-term prognosis for someone living with heart valve disease?
- If necessary, is heart valve replacement right for me?
- Are there support groups or resources that can help me cope with my diagnosis?

#### For more information:

About echocardiograms and heart valve disease visit the *American Society of Echocardiography* and the *American Heart Association* 





