



2-dimensional echocardiographic view of the heart showing the 4 chambers

When will I know the results?

The supervising doctor will review the TTE images and data after the examination. Occasionally, he or she may need to obtain further images of the heart after the initial scan by the technologist. A formal report should be available in 24 to 48 hours. Your doctor will inform you of these results, usually at your next outpatient clinic visit. However, you may be contacted earlier if there is a severe abnormality requiring urgent attention.

Contact information

Non-Invasive Cardiovascular Laboratory
Main Building 1, Level 1

Opening Hours: 8.30 am - 6.00 pm (Mon - Fri)
8:30 am - 12:00 noon (Sat)
(except on Public Holidays)

For appointments, please contact
Tel: (65) 6772 2002
Email: appointment@nuh.com.sg

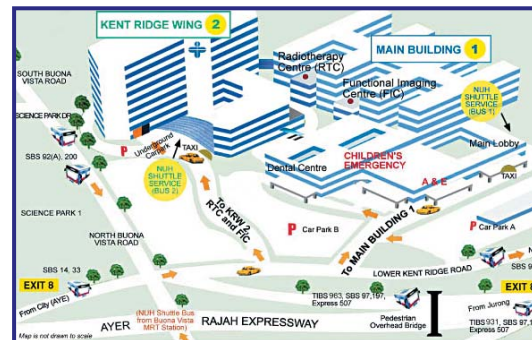
For International Patients And Visitors
The International Patients Liaison Centre (IPLC) is a one-stop service centre to support all the medical needs of our foreign patients

Tel : (65) 6779 2777 (24-Hours Helpline)
Fax : (65) 6777 8065
Website : www.nuh.com.sg/iplc.html



National University Hospital
5 Lower Kent Ridge Road, Singapore 119074
Tel: 6779 5555 Fax: 6779 5678 Website: www.nuh.com.sg

Location



Free Shuttle Bus Service

Free Shuttle Bus Service from Dover MRT Station to NUH

Operation hours : 8.00 am – 8.30 pm (Mondays – Fridays)
8.00 am – 2.00 pm (Saturdays)
Not available on Sundays and Public Holidays

Dover/NUH passenger pickup/ drop off point : 1. Dover MRT Station (opposite Singapore Polytechnic)
2. Main Building, Lobby Entrance (near roundabout)
3. Kent Ridge Wing, Level 3, South Entrance

For more information on Shuttle Bus schedule, log on to www.nuh.com.sg

Information in this brochure is given as a guide only and does not replace medical advice from your doctor. Please seek the advice of your doctor if you have any questions related to the surgery, your health or medical condition.

Information is correct at time of printing (Jan 2010) and subject to revision without notice.

Transthoracic Echocardiography



What is transthoracic echocardiography?

Echocardiography uses sound waves to visualise the heart structures. Ultrasound waves are high-frequency sound waves undetectable to human ears. In transthoracic echocardiography (TTE), ultrasound waves are transmitted from a probe or transducer placed on the chest wall into the chest cavity. The sound waves are reflected from the heart and other organs in the chest, and the reflected waves (echoes) are received by the same transducer. These echoes are then converted into electrical signals that are processed by computers to form two-dimensional images of the moving heart. The images are displayed on a video monitor.

TTE is "non-invasive" as no part of the instrument is inserted into the body. An additional technique, Doppler Echocardiography, uses ultrasound waves to determine the patterns of blood flow through the heart and blood vessels.



What is the purpose of this test?

TTE is one of the most commonly performed tests in modern-day cardiology practice. It allows detailed visualisation of the heart chambers and the great vessels in the chest. It is also used to examine the flow of blood through these structures. It can reveal abnormalities of the heart valves and muscles. One of the most important uses of the TTE is to determine how well the heart functions as a pump. It is also an important tool in diagnosing congenital heart diseases, such as hole-in-the-heart.

What can I expect?

The TTE is performed in the Non-Invasive Cardiac Laboratory. No fasting before the procedure is required, and no pre-medication is given. Throughout the examination, which takes about 30 to 45 minutes, you will be lying

down mostly on your left side. You may be instructed to hold your breath periodically during the examination.

Before the examination, your height, weight and blood pressure will be recorded. Three electrocardiogram (ECG) leads will be placed on your chest to track your heart rhythm. A water-soluble gel is applied to your chest wall, upper abdomen, or neck, to provide an air-free contact for the transducer.

Your technologist will apply the transducer to these areas to obtain the best possible images of your heart, which will be displayed on a video monitor. To view these images clearly, the lights in the examination room will need to be dimmed. Blood flow through the heart structures may be amplified and heard as swishing sounds corresponding to the heartbeat. Do not be alarmed by these sounds. At the end of the examination, the technologist will help clean up the gel, which can be easily wiped or washed off.

What should I do before the test?

No special preparation is required. However, to facilitate the examination of the heart from the upper abdomen, it may be helpful to avoid eating, or taking fizzy drinks, about two hours before the test.

What are the potential risks/complications with this test?

Ultrasound is extremely safe. No clinically important adverse effects have been reported, even with repeated examinations. Pregnant women may also undergo TTE, without additional risk to themselves or the unborn child. Sometimes, pressure of the transducer on the chest wall may cause some discomfort. Please inform the technologist if you experience any discomfort.