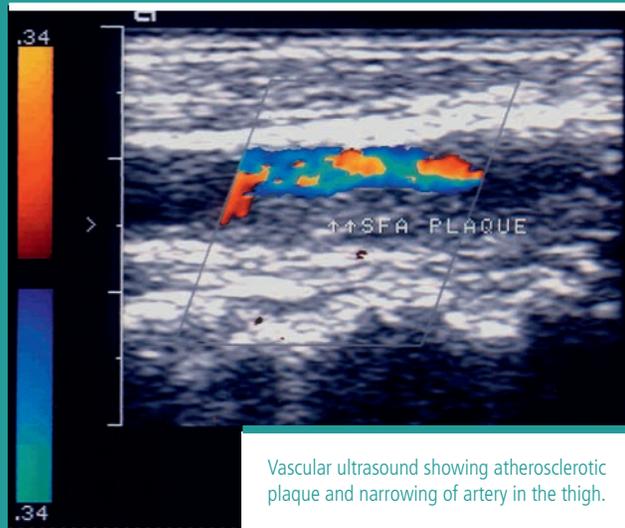


## What can I expect after the procedure?

The technologist will help you to clean off the gel, which can be easily wiped or washed off.

The images from your study and reports are then sent to a physician with expertise in vascular testing for review and interpretation. The recorded images and reports will require some time to be analyzed. Your doctor will inform you of the results usually at your next outpatient clinic visit.



Vascular ultrasound showing atherosclerotic plaque and narrowing of artery in the thigh.

## What are the potential risks/complications with this test?

Ultrasound is extremely safe, and no adverse effects have been reported even with repeated examinations. Pregnant women may also undergo vascular ultrasonography safely, without additional risk to themselves or the unborn child.

## Location



**National University Hospital**  
5 Lower Kent Ridge Road, Singapore 119074  
Tel: 6779 5555 Fax: 6779 5678 Website: [www.nuh.com.sg](http://www.nuh.com.sg)

### Contact Information

#### National University Heart Centre, Singapore

1 Main Building of NUH, Diagnostic Vascular Laboratory, Level 3.

**Opening Hours:** 8.30 am - 5.30 pm (Monday - Friday)

Closed on Weekend & Public Holidays

**Website:** [www.nuhcs.com.sg](http://www.nuhcs.com.sg)

### Getting to NUH

#### Circle Line Kent Ridge MRT Station

Commuters can transit at the Buona Vista MRT Interchange and alight two stops after at the Kent Ridge Station. The station is served by three exit-entry points.

**Exit A:** Right at the doorstep of National University Heart Centre, Singapore.

**Exit B:** Along South Buona Vista Road, which links to Singapore Science Park 1.

**Exit C:** Leads to NUH Medical Centre.

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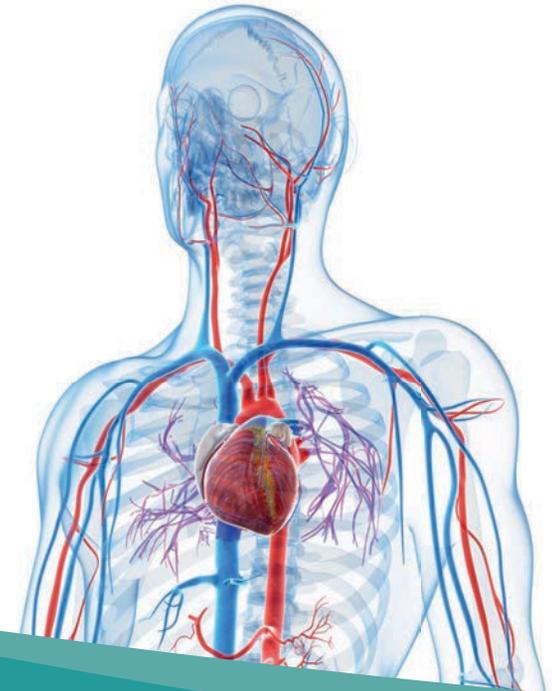


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**National University Heart Centre, Singapore**  
A member of the NUHS



# Vascular Doppler Ultrasonography

View patient education videos on **NUHCS YouTube** page!

STEP 01



STEP 02



Download a FREE QR Reader on your smartphone and scan the QR code.

The QR code will decode instantly. You'll be brought to [www.youtube.com/user/NUHCS](http://www.youtube.com/user/NUHCS)



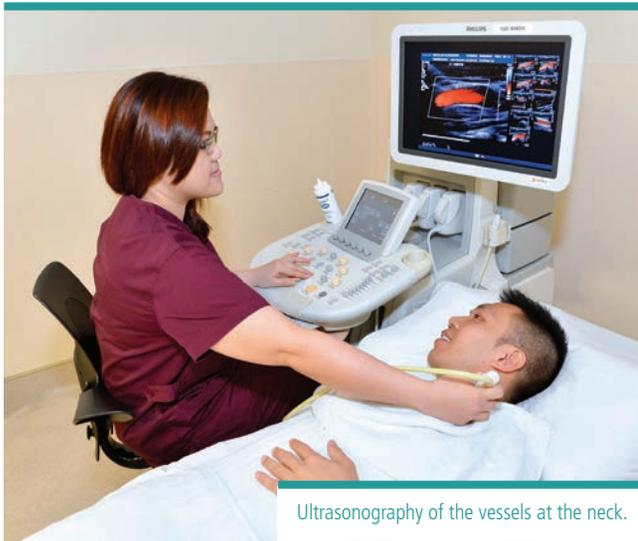
Scan the QR code

## What is vascular ultrasonography?

Ultrasonography uses high frequency sound waves to visualize internal body structures. A special probe that creates ultrasound waves is placed against the skin. Ultrasound waves then travel through the skin, muscles and blood vessels.

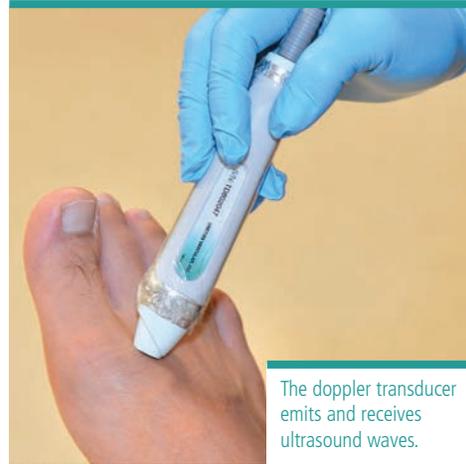
Some of the sound waves bounce off the structures in their path and return to the ultrasound machine, thereby delivering important information that is used to make pictures of the tissues on the monitor. Sound waves that return from the body also carry important information about the blood flow in the arteries and veins.

Vascular doppler ultrasonography is a non-invasive procedure. A number of important arteries and veins can be studied by doppler ultrasound. The most common ones are the vessels of the **neck** leading to the head, of the **lower limb** and **upper limb**, and of the **abdomen**.



## What is the purpose of the test?

Ultrasonography of arteries (blood vessels that carry blood from the heart to the important organs and other parts of the body) allow detection of narrowing and blockage of these vessels. Using the Doppler technique, it can determine the direction and speed of flow, and whether there is a blockage within a blood vessel.



Ultrasonography of the veins (blood vessels that bring blood back to the heart) is used to detect thrombosis and blood clots. It is also used to identify venous reflux in lower limbs.

## What can I expect before the procedure?

The procedure is quite comfortable and virtually painless. Usually, no fasting before the procedure is required, and no pre-medication is needed.



If you are having an ultrasound study of the blood vessels in the abdomen, you should not eat or drink anything about 6-8 hours before your test.

## What can I expect during the procedure?

Vascular testing is done by a healthcare professional known as a vascular medical technologist. You will be asked to change into a hospital gown and lie down on an examination table. During the examination, a water-soluble gel is applied on the skin overlying the blood vessels so as to provide an air-free contact for the transducer to obtain the best possible images. Throughout the examination, which takes about 30 to 45 minutes to perform, you will be lying on your back and occasionally on your side.



As part of the vascular testing, cuffs may be applied to the limbs to measure the blood pressure in various vessels, or your technologist may squeeze your limbs or muscles to study the resultant pattern of the blood flow. In some situations, the test may be performed in conjunction with walking on a treadmill exercise machine.