

FACT SHEET:

Non Invasive Vascular Imaging



What is a Doppler Ultrasound Scan?

A Doppler ultrasound test uses reflected sound waves to see how blood flows through a blood vessel. It helps doctors evaluate blood flow through major arteries and veins, such as those of the arms, legs, and neck. It can show blocked or reduced blood flow through narrowing in the major arteries of the neck that could cause a stroke. It also can reveal blood clots in leg veins (deep vein thrombosis, or DVT) that could break loose and block blood flow to the lungs (pulmonary embolism).

How do I prepare for a Doppler Ultrasound Scan?

There is very little preparation needed but you may be asked to wear something with short or loose sleeves. If you wear trousers it is useful if the legs can be rolled up. You may eat and drink normally before the test. For the test you will be asked to remove your socks/stockings and shoes.



What happens during a Doppler Ultrasound Scan?

You will be asked to change into a gown and lie flat on the procedure couch. A water based gel is placed on the skin corresponding to that area and a handheld instrument (transducer) is passed lightly over the skin above a blood vessel. The room is usually darkened, to eliminate screen reflection. The transducer sends and receives sound waves that are amplified through a microphone. The sound waves bounce off solid objects, including blood cells. The movement of blood cells causes a change in pitch of the reflected sound waves (called the Doppler effect). If there is no blood flow, the pitch does not change. Information from the reflected sound waves can be processed by a computer to provide graphs or pictures that represent the flow of blood through the blood vessels.



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Are there any after-effects associated with Doppler Ultrasounds scans?

Doppler Ultrasound is safe and harmless. It is possible to go about your normal activities straight after scans. Doppler Ultrasound scans are noninvasive (no needles or injections are given) and painless. Slight discomfort may be felt as the transducer is moved around the skin. Please let the Sonographer know if you are tender in any area before the test commences.

How long does a Doppler Ultrasound Scan take?

Doppler Ultrasound scans vary in length depending on the area being scanned, usually a Doppler scan takes approximately 45minutes.