

Carotid duplex - Doppler ultrasound scan

What is the purpose of this information leaflet?

This leaflet will provide information regarding a test you have been referred for.

What is this test measuring and what is it for?

The carotid and vertebral arteries are the blood vessels that carry oxygen rich blood to the head, brain, eyes, and face. They are located on each side of the neck. These blood vessels can become narrowed, or more rarely, blocked, affecting the blood flow to the brain. When narrowed, tiny pieces of plaque or clot can break away from the narrowed artery and be carried in the blood stream to the brain. This can cause symptoms including changes to eyesight, weakness in a limb, or speech disturbance. The effects may be temporary (TIA) or longer lasting (stroke). We may be doing this scan because you have had symptoms like these. Some other reasons include pulsatile tinnitus, or if you are being screened before cardiac surgery.

We use a specialised form of ultrasound scanner (known by many people as the type of machine used for scanning babies in the womb). This gives us images of the blood vessels in your neck and information on the blood flow through them. Using the images and measurement of blood speed and volume, we are able to accurately determine if there is any narrowing of the blood vessels and, if so, how severe this is.

Preparing for your test

No preparation is needed, but it may be best if you wear clothing that allows easy access to your neck and avoid necklaces.

Who performs the test?

A qualified vascular scientist will perform the scan, usually with an assistant in the room. Sometimes a trainee vascular scientist may perform your scan, but will be supervised during the scan and in writing the report.

What to expect during the test

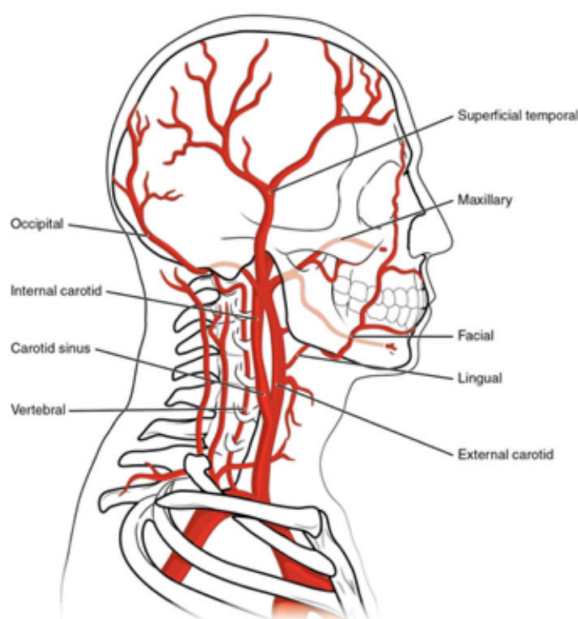
You will lie flat on a couch with your head on a pillow. The lights will be dimmed. Warmed water based gel is placed on your neck and a small ultrasound probe is placed on your skin. It is slowly moved while the vascular scientist looks at images on the screen of the machine. You will also hear blood flow sounds from the machine in line with your pulse.

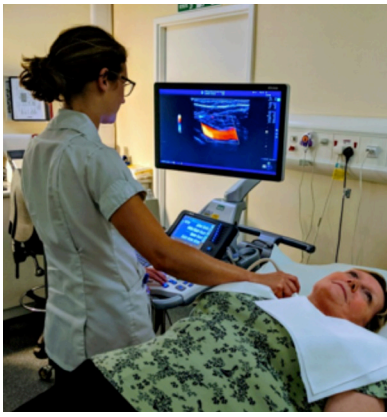
Does it hurt?

It should not hurt at all. Only light pressure is applied to the skin.

How long does it take?

Usually about 20 minutes.





Will the results be explained to me?

Further analysis is usually necessary with review of the images and measurements, so we may only be able to give you a summary of the scan findings at the time of the scan.

How soon will my referring doctor receive my results?

Reports are usually written immediately after the test has been completed and are available on the hospital's information system within a few minutes. A printed copy of the report is sent to the referring doctor the next working day.

Where can I get further advice or information, or change /cancel an appointment?

If you need further advice or want to make changed to your appointment, please contact the Medical Physics Department on **01202 704569**, 9am-5pm, Monday to Friday.

Scan the QR codes to load the websites on your smartphone



You can visit the Royal Bournemouth Hospital Website: **www.rbch.nhs.uk** or read the patient information available in the Medical Physics waiting area before your test.



You could also visit the website of the Society for Vascular Technology of Great Britain and Ireland: **www.svtgbi.org.uk**. This is the society whose standards we follow in performing our non-invasive vascular diagnostic work.



The Circulation Foundation is the UK Vascular charity: **www.circulationfoundation.org.uk**. Its mission is to promote awareness into vascular conditions and to support vital research

Our mission

To provide the excellent care we would expect for our families.

The Royal Bournemouth Hospital,
Castle Lane East, Bournemouth, Dorset, BH7 7DW

The Bournemouth Hospital Charity raises funds for the Bournemouth and Christchurch Hospitals to enhance patient care and purchase items which directly benefit patients and staff above and beyond that which can be funded by the NHS alone. If you would like to contribute to the Bournemouth Hospital Charity please contact them on **01202 704060**, email **charity@rbch.nhs.uk** or visit **www.bournemouthhospitalcharity.org**.

If you have any queries or concerns about your care at the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, the Patient Advice and Liaison Service (PALS) would be happy to help you and can be contacted on **01202 704886/704301** or **pals@rbch.nhs.uk**.

If you would like this leaflet printed in a larger font, please contact the Communications Team on **01202 704905** during the office hours of 8.30am-5pm Monday - Friday.



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