

Having a contrast-enhanced ultrasound scan

Department of Radiology

Information for Patients

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Introduction

If you are an outpatient please read your appointment letter carefully to check which hospital your appointment is at and directions to the radiology department.

This leaflet tells you about your examination. Please read it carefully as it contains important information and instructions.

What is a contrast-enhanced ultrasound scan?

An ultrasound scan is an examination that uses sound waves, not heard by the human ear, to create an image of the inside of the body. It can be used to scan an unborn baby, organs including liver, kidneys, thyroids, uterus, ovaries, blood vessels, muscles or tendons of the body.

A contrast-enhanced ultrasound (CEUS) is an ultrasound scan that uses a liquid containing microbubbles called a contrast liquid. Using this contrast makes the blood vessels and some of the organs in the body show up better on the scan pictures.

The scan uses a small hand held device called a probe. Sound waves from the probe reflect off the area being examined and return to the probe. The machine then produces an image we can see on the screen.

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Why do I need a contrast-enhanced ultrasound?

The contrast liquid helps to look at the blood flow in the organ to show it up more clearly on the scan. It helps us to decide if it is normal or if it is something abnormal that might need treatment.

Contrast enhanced ultrasound scans are also done to look more closely at abnormal areas in the kidney or liver, such as fluid-filled areas called cysts.

How do I get ready for the scan?

You may need to prepare for your examination. You will find instructions in your appointment letter. Please follow these instructions carefully. If you do not follow the instructions, we may not be able to do your scan.

If you have diabetes and your letter tells you not to eat before your scan please speak to your normal diabetes care provider about the eating and drinking instructions. You can call the radiology department on the telephone number in your appointment letter to ask for an early morning appointment. We might not have been told that you have diabetes.

Please call the number on your appointment letter if any of the following apply to you:

- If there is any possibility that you may be pregnant
- If you have sickle-cell anaemia
- If you have a congenital heart disease such as atrial/septal defect
- If you have a mechanical/metallic or tissue (prosthetic) heart valve
- If you have severe pulmonary hypertension

Who will be doing the scan?

A doctor who specialises in X-rays and scans (a Radiologist) will carry out the examination. There may also be another doctor and a radiology assistant in the room.

As we are a teaching hospital a student may also be present. If you wish, you can ask that the student is not present during your examination.

We have both male and female staff scanning within our department. If you specifically ask for a male or a female to perform the examination we will try to accommodate this request, but we cannot guarantee who will be scanning until the day of the appointment.

What happens during the scan?

On arrival at the radiology department you will be directed to the ultrasound waiting area. You may be asked to change into a hospital gown. You will be taken into the ultrasound room where the scan will be explained. Please ask any questions that you have about the scan.

You will be asked to lie down on the ultrasound table. You may be asked to move some of your clothes out of the way of the area being scanned. A water-based gel will be put on your skin and the ultrasound probe will be moved over this area. Paper tissue may be used to protect your clothes from the gel, but getting gel on your clothes cannot always be completely avoided.

A small needle will be put into a vein in your arm and will stay in place until the scan is finished. During the scan you will be given about 2 to 2.5 ml (half a teaspoon) of ultrasound contrast liquid through the needle in your arm. The contrast liquid we use is called Sonovue. This is mostly made up of sterile water with salt (saline solution) and tiny bubbles of gas (microbubbles).

The Radiologist will continue with the scan. The microbubbles will leave your body quickly and naturally each time you breathe out over the next 3 minutes. You may be given one more dose of the contrast liquid through the needle in your arm if the Radiologist needs to scan for a bit longer.

When the scan is finished, the needle in your arm will be taken out and you will have a small plaster put on the skin.

How long will it take?

The time for a scan will vary for each patient. It usually takes about 20 minutes.

What happens after the examination?

You will be given some paper tissue to wipe off the gel. You can then get dressed.

You will be asked to stay in the department for about 10 minutes after the scan to check you are OK before you go home.

How do I get the results?

The results will not be given to you immediately. Your scan pictures will be looked at by the Radiologist and the results will be sent to the GP or consultant who referred you for the scan. We will explain how to get your results after your examination.

If you are an inpatient, the results will be sent to the ward.

What are the benefits of a contrast-enhanced ultrasound scan?

The contrast-enhanced ultrasound scan will help doctors find out if there is anything wrong that needs treatment. The pictures from the scan are more detailed than when contrast is not used, and are similar in detail to MRI scan pictures.

The scan can be done on people who are unable to have an MRI scan. This includes people who have a pacemaker.

A contrast-enhanced scan is safe for people with liver or kidney disease.

Are there any risks or side effects?

There are no known risks from the sound waves used in an ultrasound scan.

Ultrasound scans don't have any side effects and are generally painless.

The most common side effects (seen in up to 1 in 100 patients) from the contrast liquid are:

- Headache
- Feeling sick (nausea)
- Skin reactions at the injection site. This can include reddening or itching.

Side effects are usually mild, last only a short time (usually a few seconds to minutes) and get better without treatment.

Bleeding or bruising at the injection site. There is a very small risk that the area where the needle was put in may bleed after the injection. This is why we will ask you to stay in the waiting area for about 10 minutes after the scan to check you are OK before you go home.

What if I need to talk to someone?

If you have any questions or concerns, you can call the ultrasound booking office on 0116 258 8765 and select option 4. Monday to Friday, 9am to 5pm.

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
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