

# 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. This leaflet tells you about your scan. Please read it carefully. It has important information and instructions.

## What is a contrast-enhanced ultrasound scan?

An ultrasound scan is an exam that uses sound waves. The sound cannot be heard by the human ear. The scan creates images of the inside of the body. We can use ultrasound to scan organs such as liver, kidneys. We can also scan blood vessels, muscles, tendons.

A contrast-enhanced ultrasound (CEUS) is an ultrasound scan that uses a liquid called contrast. Contrast liquid 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 bounce (reflect) off the area being looked at and go back to the probe. The machine then produces a scan image we can see on the screen.

## Why do I need a contrast-enhanced ultrasound?

You will have had a scan that has shown something in an organ in your body. Doctors have decided this should be looked at more closely.

The contrast liquid helps to look at the blood flow in the organ. It also makes the organ show 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.

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

Visit [www.leicestershospitals.nhs.uk](http://www.leicestershospitals.nhs.uk) for maps and information about visiting Leicester's Hospitals  
To give feedback about this information sheet, contact [InformationForPatients@uhl-tr.nhs.uk](mailto:InformationForPatients@uhl-tr.nhs.uk)

## How do I get ready for the scan?

Please read your appointment letter to see if there are instructions on how to prepare for your scan. If there are, please follow the 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 to ask for an early morning appointment. We might not have been told that you have diabetes. The number to call is on your appointment letter and at the end of this leaflet.

### **Please call the radiology department if any of the following apply to you:**

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

The number to call is on your appointment letter and at the end of this leaflet.

## Who will be doing the scan?

- A doctor who specialises in X-rays and scans (a radiologist) will do the scan.
- Another doctor and a radiology assistant may also be in the room to help.
- A student may also be in the room. This is because we are a teaching hospital. If you do not want this, you can ask that a student is not in the room when you have your scan.
- We have both male and female staff in our department. If you specifically ask for a male or a female to do your scan we will try to arrange this. We cannot guarantee who will be doing your scan until the day of the appointment. If we are not able to do this your appointment may need to be rebooked.

## What happens during the scan?

1. When you get to the radiology department we will direct you to the ultrasound waiting area.
2. We may take you to a cubicle to take off some of your clothes and put on a hospital gown.
3. We will take you into the ultrasound room and talk about the scan. You can ask any questions that you have about the scan.
4. We will ask you to lie down on the ultrasound table.
5. We may ask you to move some of your clothes out of the way of the area being scanned.
6. We put a water based gel on your skin. We will then move the ultrasound probe over this area.

7. We may use paper tissue to help protect your clothes from the gel. However, we cannot always avoid getting gel on your clothes.
8. We put a small needle into a vein in your arm. It stays in place until the scan is finished.
9. During the scan, we inject 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).
10. The microbubbles will leave your body quickly and naturally each time you breathe out over the next 3 minutes. We may give you 1 more dose of the contrast liquid through the needle in your arm if we need to scan for a bit longer.
11. When the scan is finished, we will take out the needle in your arm. We will put a small plaster put on your 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 scan?

We will give you some paper tissue to wipe off the gel. You can then get dressed.

We will ask you to stay in the department for about 10 minutes after the scan. This is so we can check you are OK before you go home.

## How do I get the results?

You will not get the results straight away.

After your scan we will tell you who the results will go to and how to get your results.

The radiologist will look at your scan pictures again.

Your results will be sent to the GP or consultant who wanted you to have the scan.

If you are an inpatient, your 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. They 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 do not 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 of bleeding after the injection where the needle went in. We will ask you to stay in the waiting area for about 10 minutes after the scan. This is so we can check you are OK before you go home.

## What if I need to talk to someone?



**If you have any questions or concerns, or cannot make the appointment:**

Please call the Radiology department on **0116 258 8765** and select **option 4**. Monday to Friday 9am to 5pm, but not on bank holidays.

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔  
على هذه المعلومات بلغةٍ أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

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Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

Previous reference:

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email [equality@uhl-tr.nhs.uk](mailto:equality@uhl-tr.nhs.uk)