

What is an ultrasound scan?



Patient Information

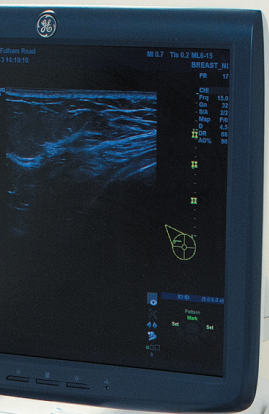




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What is an ultrasound scan?

An ultrasound scan builds up pictures of organs and other areas inside the body from sound waves. These sound waves have a frequency beyond human hearing. An ultrasound scan is often used during pregnancy to obtain pictures of a baby in the womb. An ultrasound scan does not use x-rays and is entirely safe.

The ultrasound waves are sent to and from the body by a small handheld sensor, which is similar to a microphone. The sensor is moved over the surface of the skin and it picks up the sound waves as they bounce off various organs within the body.

A computer, which is linked to the sensor, turns the sound waves into pictures that are viewed on a television screen. Images are taken of these pictures and are interpreted by trained specialists.

Why am I having an ultrasound scan?

Ultrasound scans are investigations that can be used to help doctors to make a diagnosis or assess the effects of treatment. Your doctor will recommend an ultrasound scan based on the type of cancer you have and the information needed.

Ultrasound can also be used to detect blood flow and whether there is any narrowing or blockage of blood vessels.



What are the different types of ultrasound scans?

There are several types of ultrasound scans. If you are to have one of these scans, the procedure will be explained to you before your appointment.

Sometimes, the doctor or sonographer (ultrasound technician) needs to put a special ultrasound transducer inside the body to get a clearer picture. Special transducers have been developed to 'look inside' the body. The following are some of the more commonly used ultrasound scans.

– **Ultrasound of the pelvis**

There are two ways of scanning the pelvis. The first is through the abdomen. For this method a full bladder is essential to help produce good pictures. You will be asked to drink about a litre (nearly two pints) of any fluid, except alcohol, in the two hours before your appointment. You do not have to drink it all at once but you should try not to pass urine before the scan.

The second method uses a specially designed transducer (like a large tampon), which is inserted into the vagina (also used for other types of scans, explained below). This technique provides better, clearer pictures and avoids a full bladder. Sometimes you may be asked to have both types of scan.

- **Oesophageal ultrasound**
A transducer is put into the oesophagus (gullet).
- **Rectal ultrasound**
A transducer is put into the back passage to examine the prostate gland in men. This may be uncomfortable but it should not hurt.
- **Vaginal ultrasound**
A specially designed transducer is put into the vagina to look at the uterus (womb) and ovaries in women. Again although this may be uncomfortable, it should not hurt.
- **Ultrasound of the breast**
This examination is often used to investigate breast lumps, and is particularly good for detecting cysts (fluid-filled lumps). In older women, it is frequently used in combination with mammography.
- **Contrast ultrasound**
A needle may be placed in a vein so that ultrasound contrast (a dye) can be injected while the scan is in progress. This can improve the view of the area of interest.



- **Guided biopsies / Fine Needle Aspirate (FNA)**

Other procedures, for example, biopsies, may be performed at the same time as the ultrasound. If the doctor or sonographer performing the scan notices an area which looks unusual, in the breast or liver for example, they may want to take a biopsy or fine needle aspirate (FNA) – a sample of cells or tissue – from that area. A local anaesthetic will usually be injected first to numb the area and prevent discomfort and the sample is sent to the laboratory for examination under a microscope.

With some biopsies, for example, a liver biopsy, you may need to stay in hospital overnight, but you will be advised of this beforehand.

If you have any questions or there is anything you do not understand, please ask.

Are there any risks?

There are no known risks with ultrasound and it is considered to be very safe.

What preparation will I need?

You will be told if you need any special preparation before your scan. All instructions will be on your appointment letter so please read it carefully or contact us by telephone (see page 9 for details) if you are unsure about anything.

What happens when I arrive for the scan?

When you arrive in the department you may be asked to undress and change into a hospital gown. You will then be asked to lie on an examination couch.

The lights from the room will be dimmed so that the pictures on the television screen can be seen more clearly. A gel will be applied to your skin in the area to be scanned, such as the abdomen. The gel allows the sound waves to pass into the body. The sensor can also move over the skin more easily. The gel will be wiped off at the end of the scan.

Who will I see when I have my scan?

As well as meeting reception staff, you will also see a radiologist (specialist doctor) or a sonographer (a health professional, usually a radiographer or a nurse), depending upon the type of investigation you are having.



Does the scan hurt?

No, you only feel the gentle pressure of the sensor over your skin.

If you will be having an internal scan, any sensations you may feel will be explained to you.

How long will the scan take?

Most scans take about half an hour. However, it is not always possible to know how long a scan will take until scanning begins.

What happens afterwards?

As soon as the scan is completed you may get ready to go home or back to your hospital ward if you are an inpatient. The gel will be removed before you get dressed. You may go to the toilet and eat and drink as usual. There are no side effects to the ultrasound scan itself.

Is it safe to drive home?

Yes, it is.

When will I know the results?

Although the person carrying out your scan can see organs or parts of your body on the screen, an expert must carefully interpret the pictures. The expert will prepare a report and send it to your doctor a few days later. Your doctor will tell you the results and discuss them with you. You can ask your doctor how long you should expect to wait for the results when you are first asked to go for the test.

What if I cannot keep my appointment?

If you cannot keep your appointment, for any reason, please contact the ultrasound department straight away.

If you are admitted to hospital before your appointment, please tell the staff on the ward that you have an ultrasound appointment booked.

Where can I get help?

The staff in the ultrasound department will be happy to answer any questions you may have. Please ask at the time of your appointment or telephone the department at any time.

Ultrasound department

020 8661 3736 (Sutton)

020 7808 2575 (Chelsea)

The Royal Marsden Macmillan Hotline:

020 8915 6899

(available 24 hours a day, 7 days a week)



Notes and questions

You may find it useful to write down your questions when you think of them. A space for this has been left below.

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Freephone: 0800 783 7176

Email: patientcentre@rmh.nhs.uk

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