Ultrasound Scan



What is an ultrasound scan?



An ultrasound scan is commonly used to assess the liver, kidneys, gallbladder, ovaries, uterus, scrotum, thyroid, bladder or breasts.

It can detect abnormalities in the blood vessels (arteries and veins), such as the presence of blood clots, the narrowing or widening of blood vessels or if there is an abnormal pattern in the blood flow. It can also help the radiographer to assess if there are tears, inflammation or fluid in the muscles, tendons and ligaments.

What do I need to prepare before an ultrasound scan?

When your appointment for an ultrasound scan is made, a patient preparation sheet will be given to you. Please refer to this document as you prepare for your scan.

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	TYPE OF ULTRASOUND SCAN	PREPARATION	
	Bladder	Drink 600ml of water 1 hour earlier for a full bladder*	
	Kidney and bladder		
	Pelvis		
	Hepatobiliary System	Fasting	
	Abdomen		
	Abdominal vessels		
	*For patients with no fluid restrictions		
$7 \square$			

While most ultrasound scans do not require much preparation, please note that preparation may be required for ultrasound scans of these areas:

Abdominal ultrasound (for gallbladder)

Fasting is required for the gallbladder to expand so that it becomes visible during the scan. This allows the radiographer to check for any growth(s) inside the gallbladder. In addition, diabetic patients should not take their diabetic medication(s) on the morning of the scan.

Pelvic and bladder ultrasound

A full bladder is required for a pelvic and bladder scan, as it enables better transmission of the sound waves. This helps to produce clearer images of the bladder and pelvis.

Contrast Enhanced Ultrasound (CEUS) imaging



Contrast enhanced ultrasound imaging involves using contrast agents to monitor areas in the body. An ultrasound contrast agent consisting of gas-filled microbubbles is injected into your body via a plastic cannula in your vein.

No preparation is required for this procedure, unless specified in the patient preparation sheet provided when your appointment was made.

CEUS imaging helps radiologists assess if there are abnormalities in the region by observing the real-time flow pattern of the microbubbles. After the scan, the microbubbles (contrast agent) are excreted through the lungs, making the process safe for patients with renal impairment.

Is CEUS imaging safe?

Our ultrasound contrast agents contain sulphur hexafluoride, or egg derived surfactant.

Always alert your doctor and radiographer before the scan if you have any of the health conditions mentioned, which include allergies to products containing sulphur or egg.

Our care team will assess if this scan is suitable for you.



CEUS imaging for breast-feeding patients



As the effects of contrast agents on breast milk is currently unknown, you may wish to temporarily pump and discard the milk for the next 24 hours after being administered the contrast agent.¹

How are the ultrasound images produced?



What happens during the scan?

Slight pressure may be applied directly on the region during the scan to ensure good image quality. The region will be exposed and you may be asked to hold your breath to ensure sharp and clear images are taken.



Depending on the area being scanned, the scan will take between 20 minutes to 2 hours. You may be asked to change into a hospital gown. The curtains will be drawn and the door will be closed throughout the scan to protect your privacy.

You may hear pulse-like or rhythmic sounds from the ultrasound machine during the scan while measurements are being taken.





If you have fasted, you may eat after the scan is completed. Diabetic patients may resume their diabetic medication(s) after the scan.

What happens after the scan?



Your referring doctor will discuss the results with you at your next appointment.

Magnetic Resonance Imaging (MRI) and Computed Tomography (CT) are the two common imaging choices that your doctor may consider in place of ultrasound scans. Your doctor will select a suitable imaging technique for your condition. Do speak to your doctor if you have any concerns.

Reference:

1. American College of Radiology. (2023). Manual on Contrast Media 2023. https://www.acr.org/-/media/ ACR/Files/Clinical-Resources/Contrast_Media.pdf





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Information is valid as of March 2024 and subject to revision without prior notice.

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