



Having a CT Scan

What is a CT scan?

A CT (Computed Tomography) scan uses X-rays and advanced computer processing to create detailed cross-sectional images of the inside of your body. It allows doctors to see organs, bones and blood vessels clearly and helps with diagnosis, treatment planning and monitoring.

Why have I been referred for a CT scan?

Your doctor has requested a CT scan because it can provide important diagnostic information that cannot be obtained as accurately using other imaging methods. In most cases, the benefits of the scan far outweigh any potential risks.

How do I prepare for my CT scan?

Preparation depends on the type of scan. You may be asked to avoid eating for a few hours, drink water beforehand, or remove metal items such as jewellery. If contrast is required, you will be given specific instructions by the hospital.

What happens during the scan?

You will lie on a motorised table that moves through the CT scanner. The scan is painless and usually takes 5–15 minutes. You may be asked to hold your breath briefly while images are taken.

Radiation dose and safety

CT scans use X-rays and involve a small amount of radiation. All scans are carefully justified and optimised to ensure the lowest dose needed for a clear image. In the UK, CT imaging follows the principle of keeping doses As Low As Reasonably Practicable (ALARP).

CT dose compared with natural background radiation

Everyone in the UK is exposed to natural background radiation from the environment, averaging about 2.3 mSv per year. A CT scan may be equivalent to several months or a few years of natural background radiation, depending on the body area scanned.

What about cancer risk?

The radiation from a single CT scan carries a very small additional lifetime cancer risk. This risk is much lower than the natural lifetime risk of cancer, which is around 1 in 4 in the UK. The information gained from the scan often allows earlier diagnosis and better treatment.

Pregnancy

If you are, or think you may be pregnant, please inform the radiography staff before your scan. Alternative imaging may be considered where appropriate, or additional precautions taken if the scan is necessary.