

Computed tomography

A patient's guide

Having a computed tomography (CT) scan

This leaflet gives general information about a computed tomography (CT) scan. It does not replace the need for personal advice from a qualified healthcare professional. Please ask us if you have any questions.

What is a CT scan?

A CT scan is a special X-ray test that allows us to take detailed images of the body. Each examination varies in length; some may take minutes, others may take up to half an hour. If any preparation is required before the scan your appointment time will have allowed for this, so please arrive at the stated time.

If you need to be given a contrast drink before the scan there will be a wait of up to one hour before the scan takes place.

How is a CT scan carried out and are there any risks?

A radiographer will ask you to lie on the CT table which will move through the centre of the CT scanner. You may be given an injection of X-ray contrast (sometimes called dye) so that we

can see your anatomy more clearly. We will ask you some safety questions prior to the procedure that will include your allergy status.

Please inform us if you have had a previous reaction to X-ray dye, even if it was mild. The dye (which contains iodine) is usually safe and adverse reactions are rare, although it is common to get a 'hot-flush', a metal taste in your mouth and/or a feeling that you have 'wet the bed' (please be assured you will not do so). These sensations are perfectly normal and pass within a couple of minutes.

Very occasionally, the contrast can leak outside the vein which causes temporary swelling and discomfort in your arm. This is called extravasation and happens in 1 in 200 people. If this does happen, we will provide you with further instructions and advice to follow.

Adverse effects, the majority of which are minor and managed within the CT department, occur in approximately 0.4%-1% (fewer than 10 in 1000) of contrast administrations.

Severe reactions, including persistent vomiting, urticarial rash (commonly known as hives), face

and mouth swelling and very severe reactions, including anaphylaxis, are extremely rare and only occur in 0.6% (6 in 10,000 of cases).

The dye passes through your system and will be removed by your kidneys. We may perform a test in the department to assess your kidney function if we do not have a recent result readily available.

When you breathe, it can cause the image to blur. At some point during the scan in order to help us get a clear picture we will ask you to hold your breath for no more than 15 seconds. We will practise this with you before your scan and go through exactly what you should expect during the procedure.

How long will the scan take?

The scan itself should take only around 15 minutes. If you have been given the dye injection you will need to remain in the department for 20 to 30 minutes after completion of the scan.

Sometimes you may be in the department longer if there are emergencies requiring scanning at short notice. We will

do our best to keep you informed of any delays. Your appointment time does include preparation time. Please be prepared to stay in the department for up to one hour.

How should I prepare for the scan?

You can eat normally and should continue to take your medication as prescribed.

Unless you have been informed by a doctor to restrict your fluid intake, please ensure that you are not dehydrated before the appointment.

Please bring a list of your current medication.

If you have any kidney problems, please contact the department before your appointment.

If you are asthmatic and use an inhaler, please bring it with you to your appointment.

You should be able to return to your normal daily routine after your scan and you can eat and drink as normal. It is safe to drive after the procedure.

You may wish to bring someone with you to your appointment but they will not be able to

routinely accompany you into the imaging department.

What are the benefits of a CT scan?

A CT scan gives detailed pictures which help us to make a diagnosis or to assess any health problems. Your clinician or doctor can then suggest the best treatment for you.

Is there any risk to me from the radiation used in the scan?

The amount of radiation used to perform a CT scan is kept to the minimum needed in order to answer the clinical question, and the amount you are exposed to will vary depending on the type of scan and how much of your body is scanned. CT scanners are designed to make sure you are not exposed to unnecessarily high levels¹.

We are exposed to natural background radiation all the time. Generally, the amount of radiation you are exposed to during each scan is equivalent to between a few months and a few years exposure to natural background radiation¹.

The benefits and risks of having a scan will always be weighed up beforehand¹.

Radiation can cause cell damage which may, after many years, develop into cancer. This risk is thought to be very small (less than 1 in 2,000). We try to make sure that every patient fully understands the risks and benefits of the procedure. Please ask if you have any questions. Also, please let us know if you are pregnant.

What happens if I don't have the scan?

If you don't have this scan, your doctors will have less information to help to diagnose or assess your health problem. This will make it harder for them to give you the best treatment for your condition.

Use of images for research, publication and audit

Teaching, audit, research and publication of research results are important parts of Royal Papworth Hospital's function. They all contribute directly or indirectly to the maintenance and improvement of the quality of care. In order to support this you may be asked to provide consent

for the use of your medical images for teaching, audit, research and publication purposes. This is voluntary and will not influence the care you are given. If images are used for these purposes all information that might enable the patient to be identified or traced is removed.

Patient surveys

We value your opinion on our service and in order to deliver, maintain and improve this we may, on occasion, ask you to complete a short patient questionnaire. Completion of these surveys is entirely voluntary.

How will I get my results?

You will not get the results on the day. Once a report on your scan is complete, the results will be sent to the consultant who referred you for the scan.

Further information

If you have any other questions before you come for your scan, you can ask your family doctor, the doctor who has sent you for the test or the CT department. You can also find further information at the following websites:

rcr.ac.uk/patients

hpa.org.uk/radiation

nhs.uk/conditions/CT-scan/Pages/Introduction.aspx

gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance

Questions and contacts

If you experience any problems following the CT, please contact the CT department between 08:00 and 18:00, Monday to Friday on 01223 638808. Outside these times please contact your GP or NHS111.

The address for your appointment is:

Royal Papworth Hospital NHS Foundation Trust (Imaging department)
Papworth Road
Cambridge Biomedical Campus
Cambridge
CB2 0AY

For any other queries regarding your appointment or further information about Diagnostic Imaging Services at Royal Papworth Hospital, please contact the Royal Papworth Hospital booking centre.

Telephone: 01223 638808

If you require an interpreter please contact our booking centre.

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royalpapworth.nhs.uk/our-hospital/information-we-publish/privacy-request

If you would prefer a paper copy, then please show this to the receptionist and request that they print it for you.

Royal Papworth Hospital NHS Foundation Trust

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