

CT scan of the abdomen with carbon dioxide

Radiology Department Patient Information Leaflet

Introduction

This leaflet is for people having a CT scan of their abdomen (stomach) and pelvis. It gives information on the scan, and the benefits and risks of the procedure.

What is a CT scan?

A CT scan is a type of X-ray that uses a scanner to take a series of your body. This includes looking at the structures of your body including internal organs, blood vessels and bones.

For the scan, you will need to lie down on the scanning table and this will pass through the centre of the scanner. The scanner is a doughnut-shaped structure with a hole in the centre (please see figure 1). You are not enclosed in the scanner. The scan is painless and very quick.



Figure 1 shows a CT scanner.

What are the benefits of a CT scan?

The CT scan provides detailed images of your abdomen particularly looking in detail at your colon and rectum. It can be used to detect many disorders of the body. The results of the CT scan will help your consultant to diagnose and monitor any health problems you have, and to decide on whether you need any further investigations or treatment.

How do I prepare for the CT scan?

You can eat and drink normally before the scan.

You should continue to take your medicines as normal; however, please contact the Radiology Department on 01384 456111 ext. 4610 if you are taking **metformin or are diabetic**.

If you have any Renal (Kidney) issues and have not had a Function (Blood) Test in the last 2-3 months, please contact the department.

What happens during the CT scan?

When you arrive, we will ask you to drink some fluid over an hour which will outline your stomach and bowel. We will then ask you to drink more of the same fluid shortly before your scan. We will explain this in more detail when you arrive. The fluid contains take a medication called Gastrografin. The Gastrografin will highlight the bowel wall and any faeces left. Gastrografin is a contrast medium (a dye) which contains iodine.

If you have previously suffered an allergic reaction to contrast (dye) containing iodine or have difficulty swallowing liquids, please contact the CT Department on 01384 244610.

Shortly before the scan, we will ask you to change into a hospital gown and remove any jewellery. This is to ensure there is nothing to affect the images from the scan.

Once in the scanning room, most people will have an injection of contrast dye to highlight their blood vessels and organs. This involves inserting a small cannula (a thin, plastic tube) into your arm so that we can give you the dye halfway through the scan. The injected contrast will highlight your blood, giving better images of your abdomen and giving the radiologists more information. You may feel warm all over and a sensation of passing urine. This is normal, do not be alarmed.

The cannula is inserted through your skin into a vein using a needle. Once the cannula is in place, the needle is removed leaving a small thin plastic tube in the blood vessel. This should be comfortable and will only be in place until your scan is finished.

We may also give you an injection through this cannula called Buscopan. This will help to relax your bowel muscles. A side effect of Buscopan is blurring of your vision/dizziness, this is usually short lived, lasting approximately 30 minutes. If you do experience blurring, please make sure your vision has returned to normal before driving. Very rarely, Buscopan can precipitate an eye condition called glaucoma. **If you develop painful/ red eyes with loss of vision after receiving this medication, you are advised to seek urgent medical help.**

You will then be asked to lie on your left side and a small tube will be inserted into your back passage. A very small, flexible tube will be passed two inches into your rectum to allow carbon dioxide to be gently pumped into the colon. A small balloon is then inflated in the rectal tube to help keep the tube positioned correctly. The purpose of the gas is to inflate the colon as much as possible, to reduce any folds or wrinkles that might hide any problem areas. This is a gas naturally produced by the body that will be absorbed, or you will pass it as normal wind.

The radiographers will then leave the room and go into a control room. They can see and hear you from the control room and you will only be alone for the duration of the scan. This is approximately five minutes.

Please be aware that we may need to do emergency scans throughout the day and although we try not to delay your appointment, sometimes this is unavoidable.

Will it hurt?

No, the scan is not painful. You may feel uncomfortable while the air is going in, but it should not be painful.

How long will it take?

The scan takes approximately 15 minutes. Please be prepared to be in the department for up to two and a half hours. This allows the fluid you have been given to progress through your stomach and bowel.

Does Gastrografin have any side effects?

Like with any medication Gastrografin may have some side effects. **Gastrografin often has laxative effects and may cause diarrhoea, so it is advisable to stay close to a toilet after your procedure. You will only of had a small dilute amount so the effects will be short.**

It is important to take note of any new symptoms you experience after taking Gastrografin. If you are concerned, please telephone the number on your appointment letter to speak to a member of the CT team.

Occasionally, Gastrografin can cause allergic reactions with nausea and vomiting, skin rashes and very rarely anaphylaxis. If you are concerned that you may be experiencing an allergic reaction, please contact your GP, 111 or A&E department for advice.

Can I continue to take my regular medication whilst taking Gastrografin?

You should continue to take your regular medicines as prescribed unless you are advised otherwise by this leaflet, a medical professional, or a member of the CT Team.

If you are on medication to treat constipation or diarrhoea, please stop this on the day you take Gastrografin and recommence it after the scan has been performed.

Are there any risks?

Rarely, some patients experience an allergic reaction to the contrast dye. This may include itching, a rash or difficulty breathing. We will monitor you throughout the examination.

If you have kidney problems, the contrast dye may have harmful effects on the kidneys. In this situation, the scan may still proceed, either using a reduced dose or without contrast dye.

On rare occasions, the vein that we put a small cannula into may collapse and contrast dye may leak into the surrounding tissues. This will cause swelling around the cannula site on your arm. If this occurs, we will raise your arm and put pressure on it to relieve the swelling and give you advice following this.

Rarely, damage to the bowel wall may occur such as a small tear in the lining of the colon or rectum. This happens in less than one in 3,000 tests.

The injection of Buscopan can sometimes cause a short period of blurred vision which can last up to an hour. If you are affected, please do not drive until your vision has returned to normal.

X-ray precautions:

- The procedure uses X-rays and these use a small amount of radiation which may add slightly to the normal risk of cancer.
- In radiology departments every effort is made to keep radiation doses low. The amount of radiation you are exposed to during a CT scan is the equivalent to between a few months and a few years of exposure to natural radiation from the environment.

For more information visit:

<https://www.gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance>

- Your doctor thinks that the benefit of the examination outweighs the risks. However, if you are concerned about these possible risks, please discuss these with this doctor.

PREGRANCY – you must tell us if you are or might be pregnant before you attend for your scan. If you are not sure, we will offer you a pregnancy test.

Please be aware that diarrhoea can cause the pill to be less effective, so please use other methods of contraception for the rest of your cycle and speak to your doctor.

What happens after the scan?

You will be able to continue with your normal daily activities after your scan. There are no restrictions on you driving or returning to work.

You will need to wait in the Department for approximately 20 minutes after your examination, this is so we can monitor you and ensure you have not developed an adverse reaction to any of the medication given.

You can now return to your normal eating and drinking pattern. We recommend that you drink plenty of fluids for the following 2-3 days. Although the carbon dioxide used to inflate your bowel is absorbed quite quickly following the procedure some minor abdominal

discomfort may remain for 1-2 hours. Returning to your normal diet and moving around will help to ease any remaining discomfort.

However please seek urgent medical advice (your GP or Accident and Emergency out of hours) if you experience any of the following symptoms, severe abdominal pains, sweating and nausea.

When will I know the results?

A radiologist will interpret the X-rays and the results will be sent to your consultant, or GP who referred you for the test, within two weeks. Your consultant will give you the results at your next outpatient clinic appointment, or they may write to you with the results.

If you were referred for the test by your GP, you will need to arrange an appointment to see them for the results.

What are the alternatives to a CT scan?

A CT scan is a very detailed examination, and your doctor feels that this is the best test for you. However, there may be other tests and examinations available to you and your consultant can explain other options to you.

Can I find out more?

For more information about this examination you can look at the NHS Choices website:

<http://www.nhs.uk/conditions/ct-scan/pages/introduction.aspx>

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Radiology Department on 01384 456111 ext. 4610

(9am to 5pm, Monday to Friday)

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/radiology/>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

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