

Having a CT enema scan (for patients who have iodine allergy and are unable to have bowel preparation)

This leaflet aims to answer your questions about having a CT enema scan. It explains the benefits, risks and alternatives, as well as how to prepare for your test, and what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or other member of staff in the CT department – contact details are at the end of this leaflet.

What is a CT enema scan?

CT stands for computerised tomography. A CT enema is a test to look at your large bowel. It involves inserting a small tube into your back passage (rectum) to inflate the large bowel with carbon dioxide. A series of x-rays are then taken to produce a detailed image of the inside of your body.

The pictures show cross-sections or slices of your body. They are put together by a computer and can be viewed on a screen. The radiologist (a doctor who uses x-rays to diagnose and treat illnesses) will review and report on these images.

The CT enema scan is also called a **virtual colonoscopy**. It is performed in the x-ray department by either a radiographer (a person who takes the x-ray images) or radiologist.

This examination needs special preparation. It is important that you follow the preparation instructions starting on page 2.

Why should I have a CT enema scan?

A CT enema scan can help your doctor to find the cause of your symptoms and is carried out if your doctor feels it is the best investigation option for you.

What are the risks?

As with x-rays, CT scans use radiation. The level of radiation used is very small and the benefits of the scan are thought to outweigh any risks.

As you are known or suspected to have a contrast dye or iodine allergy, no contrast dye should be given for this test. Please let the radiographers know that you have an iodine allergy when you attend for the study.

The carbon dioxide given to inflate the bowel is not suitable for all patients and we will use your pre-scan checklist to determine if it can be used. If it can not, we will use conventional air.

There is a very small risk that inflating the colon with carbon dioxide gas or air may cause a small tear in the bowel (perforation). The risk of this is about one in three thousand and is much lower than that of a colonoscopy. The CT scan is reviewed by the doctor to ensure there is no evidence of this prior to you leaving the department.

Are there any alternatives?

The alternatives to the CT enema scan are a colonoscopy or sigmoidoscopy. Please speak to your doctor if you have any questions or concerns about this examination, or if you would like further information on the alternative options.

How can I prepare for the CT enema scan?

Please read these instructions very carefully

If you have diabetes:

Please make sure that you have a morning appointment. If you take insulin, you should be given a 9am appointment. If you are taking medicine for diabetes such as metformin, these may need to be altered around the time of the procedure. Please call the CT department at Guy's on 020 7188 5574 or St Thomas' on 020 7188 5464, Monday to Friday 9am to 5pm, for advice.

If you are of childbearing age and have regular periods:

You must ensure the scan is within 10 days of the first day of your last menstrual period. Please call the department if you need to reschedule your scan, or **if you think you may be pregnant.**

If you have any medication allergies:

Please make sure that the doctor is aware of all of the medicines that you are taking, in case any of them interact with Barium (E-Z-CAT). Please also let them know any other medication allergies that you may have.

Medicines to prepare you for the scan:

You should have received **one can (225ml) of Barium (E-Z-CAT)** in the post (unless you have collected it from the pharmacy yourself). You need to take this in two separate doses. You can mix this in water or juice as needed (please follow the instructions in Diet Table A).

Barium (E-Z-CAT) is a liquid (dye) that is used to 'tag' any remaining stool (faeces) in the bowel. Most of the dye (more than 99.5%) is not absorbed by the body and gets mixed with the stool in the large bowel (this is known as faecal tagging). It will eventually be excreted (passed out of the body) and may make your stool appear white in colour. The liquid shows up on the CT within your bowel, helping the doctor to read the scan.

If you have any questions about the instructions or have not received your bowel preparation, please contact the CT department. Also, if you have any adverse reaction to taking Barium (E-Z-CAT), please contact the CT department for advice – contact details are at the end of this leaflet.

Please take your regular medicines as normal, unless you are told otherwise.

Checklist for the day before your scan

Do Not

- Eat vegetables, fruit, brown bread, brown rice, brown pasta, jam, nuts, biscuits, crisps, or drink alcohol
- Eat heavy meals
- Eat potatoes with skins, or roasted, deep fried food
- Eat bran cereal
- DO NOT drink milk in your tea/coffee after 1pm until the scan is complete.

Do

- Follow **Diet Table A** as closely as possible (see below)
- Eat small meals only made up of foods called “low residue foods” which help to clear your bowel e.g. butter, margarine, cream cheese, boiled eggs, cereals (corn flakes, rice cereal), white pasta, meat or fish, clear jelly
- Take your medications as normal unless directed otherwise
- Drink at least one and a half to two litres of water. This is important to ensure that the Barium (E-Z-CAT) solution effectively ‘tags’ your stool and is not too concentrated.

Diet Table A - The table below gives an example of how you should eat and drink during the day before the scan, and explains when you need to take Barium (E-Z-CAT).

Breakfast	Please have your breakfast as guided below:
8am-9am	<ul style="list-style-type: none"> - Tea/coffee (with or without milk; sugar/sweetner if needed); Herbal tea or diluted juice <p>Choose ONE of the following:</p> <ul style="list-style-type: none"> - 30 grams rice cereal or cornflakes with 100 millilitres of milk OR - two slices of white bread/toast with a small spread of butter/margarine and honey OR - one boiled/poached egg and one slice of white toast/bread with a thin spread of butter/margarine OR - 50 grams of cottage or cream cheese and one slice of white toast/bread with a thin spread of butter/margarine
After breakfast	Immediately after breakfast, drink only half the can of Barium (E-Z-CAT).
Mid-morning	Tea/Coffee (with or without milk; sugar/sweetener, if needed)
Lunch 12pm-1pm	<p>Choose ONE of the following:</p> <ul style="list-style-type: none"> - 75 grams meat/fish with gravy - two boiled/poached eggs - 100 grams cream or cottage cheese <p>Add ONE of the following:</p> <ul style="list-style-type: none"> - two slices of white bread/toast with a small spread of butter/margarine - two egg-sized potatoes without skins with a small amount of butter/margarine - two tablespoons of plain white pasta/rice

	Drink plenty of water or clear fluids from now onwards. As a guide try to drink about one glass every two hours during the day.
Early evening 6pm-9pm	Drink the remaining half can of Barium (E-Z-CAT) at 6pm. DO NOT have any solid food between 6pm-9pm. You are allowed to have clear soup or a meat extract drink and clear jelly
Late Evening After 9pm	Do not eat any more food until after you have completed the scan, but continue to drink plenty of clear fluids (such as water, squash, fizzy drinks, clear strained soup or clear stock).
On the morning of your scan	On the morning of the scan drink clear fluids only e.g. tea/coffee (without milk) You can take your usual morning medicines with a glass of water by 8am.

Patients with diabetes or restricted diets for religious or ethical reasons should contact the CT department for further dietary advice.

On the morning of your scan

On the morning of the scan drink clear fluids only. You can take your usual morning medicines as usually directed with a glass of water.

Remember to keep drinking clear fluids throughout the day.

Important: If you have an allergic reaction to the bowel preparation such as a rash, itchiness or redness, call the CT department or your GP.

In very rare cases a reaction can cause swelling of the face, lips, tongue or throat. If this happens, go straight to your local A&E department.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens during a CT enema scan?

When you arrive in the x-ray department we will ask you to complete a short pre-scan checklist to confirm your medical history. You will also be asked to change into a hospital gown. You may find it more comfortable to bring a dressing gown and slippers with you but this is not essential. You will meet the radiographer who will carry out your scan and go through the procedure with you.

The scanning machine is like a doughnut (ring). You will need to lie on a motorised bed which moves slowly through the 'ring' of the machine as the scan is taken. Unlike some other scanning machines, the CT scanner is not enclosed.

We will help position you on the CT table. You will then be asked to roll onto your left side so we can put a small flexible tube into your back passage. Carbon dioxide will be put into the bowel via the tube, which will allow us to see the bowel better. The carbon dioxide will be absorbed by the body and breathed out via the lungs without any harm to you.

Once enough carbon dioxide has been introduced, we will ask you to turn onto your back for the first scan. You will then be asked to lie on your tummy for the final scan while the tube remains in place. You will need to lie very still while each picture is taken. We will also ask you to hold your breath for about 10 seconds at a time. This helps to prevent blurring of the images.

How long will the scan take?

The scan will take about 20 to 30 minutes but you will be in the department for about one hour. We will try to keep to your appointment time but occasionally we have to scan patients urgently at short notice. This means that your appointment could be delayed – we will let you know if this is the case.

Will I feel any pain?

The tube may feel a little strange in the back passage. You should not feel any pain, but please tell the radiographer if you do. The most difficult part is keeping still. Try to relax as much as possible. If you find it uncomfortable to lie still, please tell the radiographer.

What happens after the scan?

In most cases, as soon as the scan is finished you can go home, or back to your ward if you are staying in hospital.

What do I need to do after I go home?

You can eat and drink as normal, and resume your usual activities straight after the scan. Please contact your GP or go to your nearest A&E department if you feel unwell or think you may have an allergic reaction to Barium (E-Z-CAT) such as rash, itchiness or redness.

When will I get the results?

The pictures taken during the scan are carefully studied by the radiologist, who will produce a detailed report. The report will be sent to the doctor who referred you for the scan. They will discuss the results with you and any treatment you may need.

If you were referred by a consultant at Guy's and St Thomas', they will normally receive the results within four working days. If you were referred by a consultant at another hospital or your GP, you should allow two weeks from the day of your scan before making a follow-up appointment to discuss your results. You will need to request a follow up appointment with your referring clinician.

Contact us

If you have any questions or concerns about having a CT scan, please contact the CT department at Guy's on **020 7188 5574** or St Thomas' on **020 7188 5464**, Monday to Friday 9am to 5pm.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and Accessible Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership