

Radiology Department

CT – 48 hour Low Dose Oral Preparation: CT Abdomen and Pelvis Information Leaflet

Introduction

You have been advised by your doctor to have a computerised tomography (CT) investigation of your bowel. This leaflet will explain what the examination involves. It may not answer all your questions, so if you have any queries or concerns, please do not hesitate to call the telephone number on your appointment letter. If you feel unhappy with any part of your care please ask to speak to the most senior person in the department on the day.

Please read this leaflet carefully to make sure you successfully prepare for the examination. You will need to begin your preparation for the examination 2 days before your appointment.

Please contact the X-ray Department if your weight is equal to or more than 203 Kg (32 stone) – You may require an alternative examination.

What is a CT scan?

A CT scan is an X-ray examination that gives much more information than a normal X-ray. It produces detailed cross sectional images of your organs and blood vessels.

The examination will be performed by a radiographer who will be assisted by a radiology department assistant. The procedure may take up to 30 minutes. The images will be reported at a later time by a radiologist (a specialist X-ray doctor).



Points to Remember

- **If you are over 71 years of age, please make sure that you have had a blood test within the past 3 months as we need to know your renal function. We request that you ask your referring clinician (Consultant or GP) for a blood test form. Failure to get this blood test will result in the cancellation of your scan and it will be rescheduled. Please note we do not send out the blood test form.**
- Please bring any sprays or inhalers that you are taking with you to your appointment.
- **Please arrive in the department at least 15 minutes before your appointment time** so that we have time to go through your safety questionnaire and get you appropriately changed for your examination.
- If you are on medication from your doctor please continue to take it as normal.
- If you are unable to attend please contact the department using the number on your appointment letter
- We also ask you to leave any valuable possessions at home.
- **Important information for patients who have a colostomy ileostomy or Jejunostomy (stoma):** Please contact the radiology department **immediately**. You may require an alternative test that will have different preparation instructions to this one.

Safety

Safety Questionnaire: Please complete the enclosed CT safety form and give it to the CT staff when you attend for your examination

Warning: The contrast agent contains iodine and is removed from your body (excreted) by the kidneys in your urine. **Please contact the radiology department immediately if:**

- You are allergic to iodine or have reacted previously to the injection used in x-ray to show your kidneys, blood vessels (angiography) or for CT scanning.
- You have severe renal impairment (**GFR less than 30ml/min**) and **are not** on dialysis treatment

Important information for patients with renal impairment (GFR less than 60ml/min):

- If you are taking **Metformin** (also called **Glucophage**, **Glucovance**, **Duformin**, **Orabet** or **Glucamet**) tablets, continue to take these as normal until the time of your examination.
- It will be necessary for you to stop taking these tablets for 48 hours after the radiological test. This is to avoid the build up of acid in the blood following the injection of contrast agent given as part of the CT investigation. Please contact your GP or specialist nurse if you have any concerns or to arrange alternative medication if required. Stopping the tablets temporarily will not cause any harm to you.
- **If you are taking non-steroidal anti-inflammatory drugs (NSAIDS)** you should discontinue taking them for 24 hours on the day of your examination. You may use Paracetamol as a substitute pain relief medication during this time.

Important information for patients with renal impairment (GFR less than 30ml/min):

Please contact the radiology department immediately as we will need to arrange for you to go to ward 50 day case before and after your examination to have intravenous fluids administered. Please expect to be in the hospital for most of the day.

Patients aged 12 - 55 years (for all examination between diaphragm and knees):

- The risks of radiation are slightly higher for the unborn child so you will be asked to confirm that you are not pregnant before an examination can proceed.
- To make sure there is no possibility you are pregnant your examination should be performed within the first 10 days of the start of your menstrual cycle.
- If you are outside of this window we ask that you read and complete the Confirmation – 'I am not pregnant' form which is attached before attending your appointment.
- Should you have any doubt, we advised that you take a pregnancy test to confirm.

Patient Information

- If you have any questions or need more information please contact the CT department on 02476 966952 (Monday to Friday 9am – 5pm) and ask to speak to the bookings clerk in advance of your appointment date.

Risks/benefits of Procedure

- X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives; this comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take all safeguards to minimise the amount of X-rays you receive.
- The radiological contrast you are required to drink before coming to hospital is necessary so that we can distinguish between faecal residue and soft tissue on the CT images. It does sometimes cause diarrhoea so you may need easy access to a toilet after you have taken it.
- It is rare but possible that you may have an allergic reaction to the oral contrast you are required to drink at home. The reaction may be a mild skin rash which can be treated with a mild antihistamine; or in very rare circumstances it may cause a more severe reaction such as breathing difficulties when you will need to call an emergency doctor. Do not take the second dose of oral contrast if you have an allergic reaction to the first.
- It is possible that you may have an allergic reaction from the injection of contrast agent used during the examination. You will be asked about allergies by the radiologist or radiographer at the time.

Preparation

You should have received a single bottle of radiological contrast which is a colourless liquid radiological contrast agent which you will be required to drink, as part of your preparation over the **48 hours** before your appointment time.

Important Information for patients on a fluid restricted allowance:

If you are under the care of a renal specialist and /or have to follow a fluid restricted diet, you should include this preparation as part of your fluid allowance. Please inform the CT radiographer before he/she begins your examination.

Patient Information

1. Drink a desert spoon (15mls) diluted in a glass of water or squash 48 hours before your appointment time
2. Drink a second desert spoon (15ml) diluted in a glass of water or squash 24 hours before your appointment
3. **Please do not eat anything for 4 hours before your appointment. If you are diabetic, please contact your diabetic specialist nurse if you have any concerns how this preparation may affect your medication**
4. Dilute a third desert spoon (15ml) in 600mls of water or squash and drink it 1½ hours before your appointment time

Please dispose of the remaining contrast that will be left in the bottle as you would normally dispose of medicines.

What will happen when I arrive?

- On arrival at the Radiology/ X-Ray Department, please report to the reception desk where you will be directed to the **CT/MRI** department reception and waiting area.
- If necessary you will be asked to undress and put on a suitable gown. Please feel free to bring your own dressing gown.
- A member of the CT staff will go through your answers to the enclosed safety questionnaire with you.

During the examination

- You will be taken into the X-ray room where the examination will be explained to you and you may ask any questions that you have.
- You will be asked to lie still on your back on the X-ray table and, if you require an injection of contrast agent, a small tube (cannula) will be inserted by the radiographer into a vein in your arm ready for the injection.
- You will then be asked to raise your arms above your head and the table will be moved into the scanner. The scanner is open at both ends (it is not a long tunnel).
- You will be asked to hold your breath whilst a short 'scout' scan is taken; this takes a couple of seconds.
- There will be a few minutes delay whilst the radiographer programmes the full scan. You will then be given the injection of contrast agent which may make you feel quite warm or flushed.

Patient Information

- After a short delay you will be asked to hold your breath again for the full scan. If you have any difficulties holding your breath, please inform the CT staff before you have the injection.
- Once the scan is complete, you will be assisted back to the changing rooms.

What is iodinated contrast media?

It is a clear liquid that is injected via a thin plastic tube (cannula) inserted into a vein (usually in the arm but occasionally in the leg). The contrast media acts like a 'dye' which helps to show up any problems in the organs of the body.

Why do I need to have the iodinated contrast media?

The dye allows the radiology doctors to distinguish between normal and abnormal structures. It improves the visibility of specific organs, blood vessels and tissues, allowing doctors to form their diagnosis easier.

Will I feel anything when I have the contrast media injected?

The contrast media can make you feel as if you are experiencing a warm flush sensation. It can also leave a metallic taste in your mouth which can last up to a few minutes once the contrast has been injected.

Pregnancy and contrast media

If there is any chance of pregnancy, let the radiographer performing the scan know. It could result in the scan being cancelled, re arranged or an alternative examination being untaken.

What side effects can be experienced following the administration of iodinated contrast media?

- After the administration of contrast media you may experience a variety of side effects, which can vary from patient to patient. The radiographer performing the scan will go through a CT questionnaire form to identify any risks before the examination is undertaken.
- Examples of side effects include feeling sick (nausea) and vomiting, but the vast majority of patients do not suffer from any side effects following the administration of the iodinated contrast media.

Patient Information

- Severe adverse reactions to iodinated contrast media are very uncommon and Radiology Departments are equipped to deal with them.

If I have a reaction to the iodinated contrast media injection what might occur?

- Most often side-effects/reactions would occur shortly after the contrast had been administered. However there is small percentage of patients that may receive a delayed reaction. This is most commonly a rash which may occur hours to days after the examination. Most reactions are mild, however it is advised you seek medical attention if it progresses.

Contrast-induced nephropathy

- Patients who have impaired kidney function are theoretically at risk of further deterioration in kidney function following iodinated contrast administration.
- All patients over the age of 71 years will need to have a blood test to check their kidney function before they have a CT scan. The CT scan must be performed within 3 months of the blood test being done.
- If you only have mildly impaired kidney function, it may still be possible to have the contrast media but you may need to have some extra fluids before and after the scan. The hospital will advise you if this is necessary.

After the examination

You will be given an aftercare information sheet by the CT staff; please ask for one if it is not offered to you. If you have any problems after the examination please see your GP.

If you have had an injection of contrast medium:

- You will be asked to remain in the CT department for 15 – 30 minutes before the tube (cannula is removed from your arm and you can go home. You may get dressed whilst you wait.
- **You can eat and drink normally after the examination.** We recommend that you drink at least one pint of liquid within 2 hours after your examination
- **If you have severe renal impairment (a GFR below 30ml/min) and are not on dialysis:** It will be necessary for you to return to renal day case unit (UHCW ward 50) to monitor your renal function if you have

Patient Information

had an intravenous injection of contrast. **Please contact the radiology department immediately.**

If you have not had an injection of contrast agent:

- You may get dressed and go home immediately after the scan.
- You should feel no after effects from the procedure.
- You can eat and drink normally after the examination.

How do I get the results?

The results will not be given to you immediately. They will be sent to the doctor who referred you for this examination.

Other Sources of Information:

- For general information about radiology departments visit the Royal College of Radiologists website: www.goingfora.com
- For information about the effects of X-rays read the NRPB publication: "X-rays how safe are they?" on the Health Protection Agency website: www.hpa.org.uk

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust or the NHS.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact the telephone number on your appointment letter and we will do our best to meet your needs.

The Trust operates a smoke free policy.

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

Document History

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Confirmation – ‘I am not pregnant’

The hazard associated with the irradiation for an unborn foetus has been explained to me as follows.

There is a small (1 / 1000 to 1/ 100 000) risk of developing childhood cancer from prenatal exposure to radiation. This is considered to be a low risk.

If you can say ‘yes’ to any one of the statements in the table below, we consider it very unlikely that you are pregnant.

If you **cannot** say yes to any of the following statements, or **you are in any doubt**, you are advised to take a pregnancy test to confirm that you are not pregnant before proceeding with the test.

***Important Information:** The combined oral contraception pill is considered to be highly reliable if taken exactly as described within the drug patient information leaflet. It may become unreliable if doses are delayed/omitted, if the patient suffers from diarrhoea / vomiting or it is taken with certain antibiotics

<ul style="list-style-type: none"> • I have had a hysterectomy or I am sterilised or I am infertile and not having infertility treatment.
<ul style="list-style-type: none"> • I have not missed a period and I have not had sexual intercourse since the beginning of my last period.
<ul style="list-style-type: none"> • I use a highly reliable form of contraception e.g. injection / implant/ coil.
<ul style="list-style-type: none"> • I use the combined oral contraceptive pill as described in the patient information literature provided in its packaging *see
<ul style="list-style-type: none"> • I am post-menopausal and I have not had a period for two years and I am not undergoing fertility treatment
<ul style="list-style-type: none"> • Young person and not yet started periods
<ul style="list-style-type: none"> • I have not missed a period and I have had a negative pregnancy test since last sexual intercourse
<ul style="list-style-type: none"> • I am currently undergoing radiotherapy to my pelvic region

Patient Information

I understand that this document will be kept by the UHCW Radiology Department. I wish to proceed with my examination today **and I am certain, for one of the reasons listed above, I am not pregnant.**

PATIENT'S SIGNATURE.....

DATE.....

RADIOGRAPHER'S SIGNATURE.....

On completion of this form, it must be scanned onto Soliton within the patients' examination information.

CT Safety Questionnaire

NAME:		D.O.B.	
ADDRESS:			
HOSPITAL NO:	MALE / FEMALE	Yes	No
1. Have you had a CT scan before? If YES , please state where and when?			
2. Have you had an injection of radiology contrast medium before? If YES , please state when, and for what type of radiology examination:			
3. Have you ever had an adverse reaction to an injection of radiology contrast medium? If YES , please give details:			
4. Do you have asthma or are you allergic to anything?			
5. Do you have renal failure? AND / OR are you seeing a kidney specialist?			
6. Do you have diabetes/sickle cell anaemia/myeloma? If YES , please state when you last had anything to drink? NB You should be well hydrated before this procedure.			
7. Do you take Metformin, or any other medication for Type 2 Diabetes?			
8. May we use your images for teaching purposes?			
Patients of Childbearing age only: 9. Is there any possibility you may be pregnant?		Yes	No
If not, please state the date of the first day of your last period:			

Patient Information

I have read the information leaflet. I understand the nature, risks and benefits of this examination.

Patients signature..... Date.....

Radiology assistant.....Date.....

Radiology staff:

1. Has the patient had a recent scan? Check RIS.
Check for Allergic reaction and date of last scan.

2. It may be necessary for me to insert a cannula into your arm in order for the Radiographer to administer a contrast/ or buscopan injection. Are you happy for me to do this?

Cannulated by:

Cannulation label

Saline check:.....

Drug	Volume	Lot No	Exp Date	Injected by	Checked by
Sodium Chloride 0.9%					

**To be completed by the Radiographer who is scanning the patient:
This form must be scanned into the patient event on the RIS.**

Have you read and understood your patient information letter including the risks and benefits of having an intravenous injection of contrast media?

Do you know what type of CT scan you will be having today?

Do you have any allergies or are you allergic to contrast Media?

Are you under a kidney specialist, or do you have renal failure

Do you have Diabetes or do you take metformin?

You may be asked to bring your arms above your head before the scan starts, there are also breathing instructions that you may be asked to follow. During the scan it is important that you keep as still as possible.

You may be given an injection of dye partway through the scan, this can give you a warm flush feeling and make you feel as though you are passing water, this is normal, however If you experience any pain please let the radiographer know

Patients who will receive Buscopan:	Yes	No
1. Do you suffer with angina, heart failure or an irregular heartbeat?		
2. Do you have untreated Glaucoma?		

Patient Information

Drug	Volume	Lot No	Exp. Date	Injected by	ID and drugs checked by
Optiray 300					
Optiray 350					
Visipaque 270					
Buscopan 20mg					
0.9% Sodium Chloride					
0.9% Sodium Chloride					

Final Pause and check:

Creatinine/eGFR:

PACS Check

Scanning Radiographer:.....

Aftercare sheet given
and property returned:
Patient signature:

Cannula Removed by:.....