Oxford University Hospitals NHS Foundation Trust

## **CT Enterography**

Information for patients



#### **Radiology Department**

This leaflet contains important information about your scan.

Please read all sections of the leaflet carefully and follow the important instructions.

### **CT Enterography**

This leaflet explains CT Enterography, what is involved in the examination and the risks involved.

Please read all sections of the leaflet carefully and follow the important instructions.

If you are diabetic, asthmatic, have any specific allergies, vegetarian/ vegan or are unable to drink 2 litres of fluids for the scan due to heart and/or kidney disease please tell us, as we may need to send you further information.

For women between the ages of 12-55 years it is important to carry out this examination within 10 days of the start of your menstrual cycle (period). This is because the examination should usually be performed when we can be sure that you are not pregnant. If the appointment date does not fall within this time please telephone for another appointment.

If you have a stoma please bring a spare bag to the appointment. Please make the staff aware that you have a stoma as this may mean you will not need to drink the fluid for as long.

If you weigh more than 203kg (32 stone), please contact us using the telephone number at the top of your appointment letter as soon as possible, as you may be above the weight limit for the scanning table.

### What is a CT (Computed Tomography) Enterography Scan?

It is a test that looks at the middle part of your intestine, called the small bowel. Enterography comes from the words 'entero' which means intestine or bowel and 'graphy' which means image. The purpose of this test is to try to find out what may be causing your symptoms (e.g. abdominal pain, weight loss.)

It involves drinking fluid (a special laxative) whilst in the Radiology Department, that fills the small bowel. You will then have a CT scan of your abdomen and pelvis.

The CT scanner is an open ring-like structure (see picture on front cover) which resembles a giant doughnut, rather than a tunnel as everybody expects!

The CT scanner is linked to a computer which creates detailed pictures in thin slice sections of the inside of your body. These will be examined by a Radiologist, to see what might be the cause of your symptoms.

You will be in the department for approximately 1.5 hours.

# Can I take my prescribed medicines as usual?

See page 5.

#### Caution

Keep all tablets and medicines out of reach of children. Never give any medicines prescribed for you to anyone else.

### What clothing should I wear?

You may wish to wear loose clothing that can be removed easily. You may be asked to change into a hospital gown, depending on which area of your body is being scanned.

If you wear clothing which does not have any metal (zips or buttons, bra wires or fasteners, or decoration), it may be possible to carry out the scan without you having to change your clothes.

### Can I bring a relative or friend?

Yes, but they will not be able to go with you into the scan room, except in special circumstances. There is limited seating in the CT waiting areas of all our sites, so during busy periods your accompanying visitor may be asked to return later. We will telephone them to let them know when you are ready to be collected. Please be aware that we cannot guarantee that we can care for young children whilst you are having your scan.

#### Interpreter

If you require an interpreter for your scan, please contact the appointments team on the telephone number on your appointment letter and this will be arranged for you. Please be aware that it is Trust policy that family and friends cannot act as an interpreter for your scan.

# How do I prepare for the examination?

In order to see the small bowel clearly it must be empty. It is important that you follow the diet instructions below.

If you are taking iron tablets, stop taking these 7 days before the examination. If you take any medication that causes constipation, stop taking these 4 days before the examination.

Please continue to take all your other medication as normal.

If you are unsure what medication you are taking or if they cause constipation please contact your GP for advice.

## There is additional advice for diabetics; please see pages 7 & 8.

#### Caution

Keep all tablets and medicines out of reach of children. Never give any medicines prescribed for you to anyone else.

### **Diet Instructions**

Please follow the diet instructions below on the **day before your** examination:

#### Breakfast 8am - 9am

Choose one of the following:

- 30g Rice Krispies or Cornflakes with up to 100ml of milk or milk alternative.
- Two slices of white bread or toast with a thin layer of butter/ margarine/honey if desired
- One boiled or poached egg with one slice of white bread/toast.
- 50g cottage or cream cheese with one slice of white bread/toast
- Plus: Tea/Coffee (with milk/sweeteners as required) or water or clear fluids (for example: fruit squash/Bovril/lemonade).

### **Mid-Morning Drink**

Tea/Coffee (with milk/sweeteners as required) or water or clear fluids as above.

#### Lunch 12 pm (midday) - 1.30pm

Choose one of the following:

- 75g of meat (e.g. lean beef, lean lamb, ham, veal, pork or poultry with gravy if desired) or Tofu or fish or shellfish
- Two boiled or poached eggs
- 100g cream or cottage cheese

And one of the following

- Two slices of white bread/toast with a thin layer of butter/ margarine
- Two small (egg sized) potatoes with the skin removed
- Two tablespoons plain white rice or white pasta
- Plus: Tea/Coffee (with milk/sweeteners as required) or water or clear fluids as above.

#### Dinner 7pm - 9pm

Choose from the following:

- Clear soup or drinks made from stock or meat extract cubes
- Clear jelly for dessert
- Plus: Tea/Coffee (with milk/sweeteners as required) or water or clear fluids as above.

No further solid food, milk or dairy products are allowed until AFTER the examination and have nothing to eat or drink on the morning of the examination.

### ADDITIONAL INFORMATION FOR PATIENTS WITH DIABETES:

The diet sheet above is suitable for both diabetic and non-diabetic patients. For the period of the bowel preparation regime, patients with diabetes can include food and drinks which include sugar, listed on the diet sheet.

If you are a patient with diabetes and have concerns about the management of your diabetes whilst following this low residue diet, please seek advice from your GP or your diabetic nurse specialist.

### **Diabetes controlled with Insulin**

#### The day before the examination:

- In the morning take HALF your normal dose of insulin.
- Continue with the above diet but it is important to check your blood-sugar levels at least three times. If your glucose levels are low you should take either some Lucozade or Glucose tablets to maintain normal levels.
- In the evening take half your normal dose of insulin.

#### On the morning of the examination:

- You should take HALF your normal dose of insulin. Check your blood-sugar levels and if low take Lucozade or Glucose tablets.
- Bring your insulin with you to the hospital.
- When the examination is finished you will be able to eat and drink normally and resume your normal insulin regime. You may prefer to bring a light snack with you.
- It is advisable NOT to drive yourself to the hospital, ask a relative or friend to bring you.

### **Diabetes controlled with Tablets**

#### The day before the examination;

• Follow the diet instructions and take your NORMAL dose of tablets.

#### On the morning of the examination:

- Do not take your morning dose of tablets. Bring your medication with you to the hospital.
- After the examination you will be able to take your normal dose of tablets and eat and drink normally.

### On the day of the examination

When you arrive in the Radiology Department you will be greeted by reception staff and directed to a CT waiting area. The Radiology staff will check your identity.

You will also be asked to complete a safety questionnaire, which asks about your medical history (e.g. diabetes, heart problems, asthma, kidney problems) and any medication you may be taking; so that we can assess any risks of giving you either Buscopan or contrast dye (see below: Will I need an injection?).

You will be asked to drink 1.5 litres of a liquid called Klean-Prep (polyethylene glycol) which we can add squash if desired, to help the flavouring. You will need to drink this over a period of 45 minutes after which you will be taken into the scan room.

**Will I need an injection?** Normally, at the beginning of the examination, subject to your medical history, an injection of Buscopan is given into a vein in the arm (through a cannula – small plastic tube that will be inserted), in order to slow down the natural motion of the bowel. You will also be given a further injection of lodine contrast to help visualise the bowel in greater detail, this will be explained to you, at the time.

Contrast dye contains iodine; this can affect your kidneys if you already have kidney problems. We may collect a small sample of blood from your cannula, to test your kidney function before we give you the contrast dye.

### What happens during the scan?

After all preparation has been done (getting changed and having the cannula fitted) you will be taken to the CT room. You will meet the radiographers, who will explain the CT scan to you, tell you what to expect. You can ask any questions you may have.

If you are female and aged between 12 and 55, you will be asked to complete a questionnaire about your menstrual cycle before the scan takes place. You will be asked when the first day of your last period was. This is to ensure that you are not pregnant, as X-rays can cause damage to an unborn baby. If it has been more than 10 days since the start of your last period and we cannot exclude that you are not pregnant, we may need to rebook your scan. If this is the case we will ask you to contact the department on the first day of your next period to rebook your scan. If it is more than 28 days from the first day of your period, you may be asked to take a pregnancy test.

## If there is any possibility that you might be pregnant, please contact the Radiology department before your appointment.

You will be asked to lie on your back on the scan table. The scanning table will move your body through the scanner, so that the areas we need to look at can be scanned. You may be asked to hold your breath while the scanner takes the pictures. If you have difficulty holding your breath, please tell the radiographer.

You will be given the injection of Buscopan if appropriate. The injection may blur your eyesight and give you a dry mouth but this doesn't last for long.

You will be told about what to expect if you are having the injection of X-ray contrast dye. This is usually a metallic taste in the mouth and a warm sensation throughout the body, particularly in the pelvis, which lasts for about 30 seconds. Please tell us if you experience any discomfort in your arm during the injection.

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The scanner is not noisy and the procedure should not be painful. The Radiographers and Radiology assistants can see and hear you at all times through a connecting window and intercom. You should only be in the scan room for around 10 minutes.

Once the scan is completed, the small tube (cannula) in your arm, will be removed, and a gauze dressing will be placed where it was, which can be removed after approximately one hour of you leaving the Radiology department.

You will be offered a tea/coffee and a biscuit before being able to leave the department and go home.

### How long does the scan take?

You should allow at least an hour and a half from the start of your appointment before you will be ready to go home. Depending on the length of your journey home you may wish to stay in the hospital a while longer until the symptoms of the Klean–Prep have subsided.

The Radiology department also provides an emergency service to sick patients. If we need to see an emergency patient, your appointment may be slightly delayed. We will do our best to keep you informed of any delays that may occur.

### What happens after the examination?

The large amount of liquid which has been put into your small bowel will pass through quickly into your large bowel and give you diarrhoea but this will not last long, the amount of time varies for each person.

Drink plenty of fluids after the examination to quench thirst. If you have heart or kidney disease it may not be safe for you to drink this much. If in doubt or you find you become breathless or your legs swell up, contact your GP.

You may feel bloated after the examination but this should settle.

You can resume your normal diet.

If you are a diabetic taking metformin we will speak to you about the possible need to stop taking metformin for 48 hours after the scan.

In the rare event that after the examination you develop a red eye and painful blurred vision in one or both eyes you **should call your GP or visit an A&E department immediately**.

The Buscopan injection may blur your eyesight over the next few hours. **Do not drive or operate dangerous machinery until you are sure your eyesight is back to normal**.

### Are there any risks?

There is a small risk from the **Buscopan** injection we use to relax your bowel and make the procedure more comfortable. Very rarely, Buscopan may result in increased pressure in the eyes from undiagnosed glaucoma – acute glaucoma. If, after the procedure and injection of Buscopan, you develop severe pain, redness or swelling of your eyes, you must immediately contact your nearest A&E Department. We will give you a letter after the procedure with all relevant information.

You will be asked to complete safety questionnaires in order to reduce any possible risks. Signs of a reaction include: raised itchy skin rash (hives), wheezing, chest tightness, swollen lips, tongue, eyes or face, itchy watering eyes. It is important to inform the hospital if you have had any previous reactions Buscopan in the past.

#### **Exposure to radiation**

CT scans are generally safe but you will be exposed to X-ray radiation. We are all exposed to background radiation from the ground, building materials and the air, every day of our lives, this is normal and natural. Medical X-rays give an additional dose and the amount of radiation you're exposed to during a CT scan varies, depending on how much of your body is scanned.

Generally, the amount of radiation you're exposed to during each scan is the equivalent to between a few months and a few years of exposure to natural radiation from the environment. It's thought exposure to radiation during CT scans could slightly increase your chances of developing cancer many years later, although this risk is thought to be very small (less than 1 in 1,000).

The benefits and risks of having a CT scan will always be weighed up by your doctor and the specialists in radiology before your CT scan, to ensure that this is the best procedure for you to have to diagnose (or treat) your condition. The radiographers always ensure that the radiation dose is always kept as low as possible and CT scanners are designed to make sure you're not exposed to unnecessarily high levels.

NB: For more information, read GOV.UK: patient dose information.

#### **Contrast Injection**

The contrast injection contains iodine, which can cause an allergic reaction in a few people. You should tell the radiographers who are carrying out the scan if you have had an allergic reaction to iodine or contrast dye in the past, or if you have any other allergies. Very rarely the dye may cause some kidney damage in people who already have kidney problems. We will ask you to complete a questionnaire on the day of the examination before the procedure takes place, to assess the risks of giving you the contrast dye. We may also take a small sample of your blood to test your kidney function.

There is a small chance that the contrast injection can leak outside the vein and cause temporary swelling and discomfort in the arm; this does not happen very often. In the unlikely event of this happening, we will provide you with further instructions and advice.

# When and how will I know the result of the CT scan?

You will not receive the results straight away. The images will be looked at and a report written by the radiologist.

The written report will be sent to the doctor that referred you to us; this is not necessarily your GP. If you are unsure who referred you for the scan, please ask the radiographers whilst you are in the scan room.

If you do not have another outpatient appointment and do not hear anything about the results within three weeks, please telephone the referring doctor or their secretary for advice. If you do not have their number, please telephone the hospital switchboard and ask to be put through to them:

Tel: 0300 304 7777

### **Questions or concerns**

If you have any queries or are unable to come for your appointment, please telephone us using the following telephone numbers (Monday to Friday 8.30am - 4.30pm):

#### Tel: 01295 229 788 01295 229 019

### **Further Information**

Further patient information is available on the following websites:

#### The Society of Radiographers

There are short videos showing the way in which X-rays and scans are used, including CT scanning.

Website: www.sor.org/about-radiography/patient-information

#### **NHS Choices:**

Website: www.nhs.uk/conditions/CT-scan/Pages/introduction.aspx

For further information about the Oxford University Hospitals NHS Foundation Trust:

Website: www.ouh.nhs.uk

### **Further information**

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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