

## Barium Studies: Barium/water-soluble enema

### Introduction

This leaflet will explain how a Barium/water-soluble enema is performed and will answer some of the most commonly asked questions.

It is not meant to replace informed discussion between you and your doctor, but it can act as a starting point for such discussion.

### What is a barium/water-soluble enema?

Barium/water-soluble enema is an examination of your large bowel (colon) with the help of X-rays and of an X-ray dye called contrast. Normally, your bowel does not show well on X-ray on its own. The contrast can be seen on X-rays and is used to fill and coat the large bowel making it visible.

A 'barium enema' uses a barium water suspension as contrast and sometimes air may be inserted into your bowel to make X-ray images clearer. A 'water-soluble enema' uses an iodine-containing contrast instead and is preferred in patients who had previous bowel surgery or there is concern about bowel perforation.

The test is carried out by a radiologist (a doctor who uses x-ray to diagnose and treat conditions), and a radiographer (a health care professional that helps facilitate the x-ray images safely). Sometimes, an assistant or a student radiographer may also be present.

### Why do I need this procedure?

Your clinical doctor has referred you for a barium follow-through to help make a diagnosis or to guide further treatment plans.

This test is commonly performed on people with bloating, diarrhoea/constipation or abdominal pain change in bowel habit or rectal bleed. It may also pick up hernias, abnormal growths, narrowing or blockages of the bowel.

Your radiographer or radiologist will discuss the procedure and your symptoms as well as any concerns you may have with you. If you don't want to you can opt not to go ahead with the barium examination and we will write to your referring doctor to let them know.

### What are the alternatives?

There may be alternatives available such as colonoscopy, sigmoidoscopy, computed tomography (CT) or magnetic resonance (MRI) imaging among others, which come with specific advantages and drawbacks.

Currently, this study has been considered as the most appropriate test for you or may be part of a range of examinations needed to get a diagnosis.

If you have any questions regarding what is the most fitting test for you, please speak to your referring clinical doctor to explain to you the available options

### What happens at your barium/water-soluble enema examination?

Before you are brought to the X-ray room you will be requested to change into a hospital gown. You may also be asked to remove jewellery, dentures, glasses or other metal objects which may show up on the X-rays.

Once in the X-ray room, a brief history will be taken; please tell the radiologist what medication, severe allergies, choking episodes or other medical conditions, such as thyroid disease and diabetes, you may have.

You will be asked to lie on your side on the X-ray couch bending your knees close to your tummy. A small flexible tube (catheter) will be inserted into your back passage that has a small inflatable balloon at its tip to help retain the tube in place. Contrast will then be administered through the tube slowly filling the bowel and coating the walls. Air may be administered too depending on the type of enema you are having. You may feel a sense of pressure but there should be no pain.

X-ray images will be taken in different stages of bowel filling and you will be asked to change position while on the X-ray couch which may move or tilt too.

At the end of the examination, most of the contrast (and air if used) will be drained and after removing the tube you will be taken to a private toilet where you can stay until you feel comfortable.

Your radiographer and radiologist will be with you the whole time during the procedure and will explain what is happening or what you need to do on the day. If you have any questions or concerns, it is OK to ask.

### **How long will I be in the hospital?**

The test usually takes 20-40 minutes. It is recommended that you allow 2 hours for the examination as you may need to use the toilet afterwards.

### **How do I prepare for my enema examination?**

If you are having a 'barium enema' it is important that your large bowel is empty for the examination. A special diet and cleansing medication instructions will be given to you in a separate information leaflet. If you are having a 'water-soluble enema' e.g. after you had bowel surgery, no preparation is usually required; you can eat and drink as normal. In either case, you will be advised appropriately before-hand.

If you have a stoma (opening onto the surface of the abdomen) please bring a spare stoma bag with you just in case you need one after the examination.

If you are unsure or have questions about your preparation contact your doctor or the X-ray department for advice.

### **Allergies**

If you have asthma or any allergies especially to iodine or X-ray contrast (CT or coronary angiogram dye) you should inform us in advance.

### **Can I bring a relative or friend?**

Yes, as long as it is in line with the national Covid regulations, however for safety reasons, they will not be able to accompany you into the X-ray room except in very special circumstances.

### **Are there any risks?**

#### **X-ray radiation**

All x-ray procedures involve exposure to radiation in varying amounts. The dose you get from a medical x-ray is very low and your doctor has determined that the benefits of having the barium/water-soluble enema outweigh potential risks.

The radiographer is present throughout your test making sure that the dose is kept as low as reasonably possible and the duration and level of x-rays are kept to a minimum.

## Perforation

Having an enema examination means an amount of contrast is introduced into the bowel through a catheter. During this process, however unlikely, there is the possibility of making a small hole in your bowel, known as a perforation. This happens very rarely and generally is a concern only if there is a problem like severe inflammation of the bowel wall.

## Contrast

Almost all of the contrast (and air if used) is drained at the end of your examination with the remaining mostly passed after you visit the toilet. However, if you have a stoma some of the contrast may collect in the bag and you might need to change it. Once all the liquid has been passed there should be no after-effects following this procedure other than your bowel movements possibly being loose over the next few hours.

Very rarely, you may have an allergic reaction to the iodine contrast medium. At any point during or after the examination, if you develop itching or difficulty breathing, tell your radiographer or doctor immediately.

## Female patients

X-rays can be harmful to an unborn baby and should be avoided by women who are or may be pregnant.

It is recommended that the examination is performed within 10 days of the first day of your menstrual period. If your appointment is not within this time or if you think you may be pregnant, please contact the X-ray department before your appointment.

When you arrive for your test, you will be asked when your last period started. If it is more than 10 days earlier, your appointment may be postponed.

## Where do I go when I arrive at the hospital?

Please report to the reception desk in the Radiology X-ray Department with your appointment letter 10 minutes before your appointment.

## What happens after the test?

At the end of the test, you will be able to go home immediately or when you feel ready. You can eat or drink normally and take your normal medications.

## How will I feel afterwards?

The examination should not be painful. Some people may feel bloated after their enema examination. However, most people have few if any side effects.

To help clear the remaining barium in your bowel **drink plenty of clear fluids** to flush it through your system. Your stools may appear pale for 2-3 days after the procedure.

## When will I get the results?

After the procedure, the radiologist will examine the images, write a report on the findings and the results will be sent to the referring doctor. While every effort is made for this to take the least amount of time possible please allow for a week if you are an outpatient.

## Sources of information

For further information regarding your condition please refer back to your doctor.

Information regarding barium examinations can be obtained from the British Society of Gastrointestinal and Abdominal Radiology (BSGAR - <https://www.bsgar.org/>).  
Patient information - <https://patient.info/cancer/colon-rectal-bowel-cancer-colorectal/barium-enema>.

## Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

## Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4731 (direct dial) or by email at: [esh-tr.patientexperience@nhs.net](mailto:esh-tr.patientexperience@nhs.net)

## Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

## Other formats

**If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.**

**Tel: 0300 131 4434 Email: [esh-tr.AccessibleInformation@nhs.net](mailto:esh-tr.AccessibleInformation@nhs.net)**

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

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## Reference

The following clinicians have been consulted and agreed this patient information:  
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The directorate group that have agreed this patient information leaflet:  
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