Information for patients having a barium enema

The leaflet tells you about having a barium enema. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you for the test or the department which is going to perform it.

The radiology department

The radiology department may also be called the X-ray or imaging department. It is the facility in the hospital where radiological examinations of patients are carried out, using a range of equipment, such as a CT (computed tomography) scanner, an ultrasound machine and an MRI (magnetic resonance imaging) scanner.

Radiologists are doctors specially trained to interpret the images and carry out more complex examinations. They are supported by radiographers who are highly trained professionals and carry out X-rays and other imaging procedures.

What is a barium enema?

A barium enema is a special X-ray study of the large bowel (colon and rectum). Barium is used as a contrast medium to line the bowel and this shows up on X-rays. During the examination, air can be put into the bowel to distend it, and this helps it to show the bowel more clearly. Both the barium and the air need to be passed into the bowel through a small, soft tube, which is inserted into the rectum, or back passage.

Are there any risks?

All X-ray procedures involve exposure to radiation in varying amounts. In all X-ray examinations, the amount of radiation is kept to the minimum necessary. However, during the barium enema, you will be exposed to the same amount of radiation as you would receive naturally from the atmosphere over about three years.
There is also a tiny risk of making a small hole in the bowel, a perforation. This happens very rarely indeed and generally only if there is a problem like a severe inflammation of the bowel wall.

There is also some slight risk if you are given an injection of Buscopan (a muscle relaxant) to relax the bowel. The radiologist or radiographer will ask you if you have any history of heart disease or glaucoma before giving this injection.

All risks are relative, and it is important to remember that the risk of missing a serious problem by not having the test done is much greater.

**Are you required to make any special preparations?**

Yes, it is essential that your bowel should be empty, and an accompanying leaflet will explain what you should eat and how you need to take the special laxative provided.

This laxative is vigorous and to avoid inconvenience it is best to stay at home on the day before the examination.

**If you are diabetic**

If you do take insulin or tablets, you need to make sure you have enough to eat on the day before your appointment to prevent low blood sugars and you should follow the advice given by the radiology department (usually in a special accompanying leaflet).

**If you are pregnant**

This examination is not advisable for pregnant women, unless there are exceptional circumstances. Please advise the department in advance if you think you are, or might be, pregnant.

**Can you bring a relative/friend?**

Yes, but for reasons of safety, they may not be able to accompany you into the examination room, except in very special circumstances.
When you arrive

You should go to the reception desk in the department, after which you will be shown where to wait until collected by a radiographer or other member of staff.

The procedure for your examination will be explained to you. If you have to undress for the procedure, you will be shown to a private cubicle where you will be asked to put on the gown provided. You will be asked to place your clothes and personal items in a locker or a basket, which you will keep with you.

Who will you see?

You will be cared for by a small team including a radiographer, and possibly also a radiologist. Whoever is doing the examination will be watching a screen at the time. A radiologist will subsequently examine the record of the images before writing a report on the findings.

What happens during the barium enema investigation?

You will be taken into the X-ray room and asked to take off your dressing gown, but you can still wear the gown. You will be asked to lie down on the X-ray table, on your left side at first. The radiologist or radiographer will insert the soft plastic tube into your rectum (back passage), and the barium liquid then flows through the tube and around your bowel.

The radiologist or radiographer watches this on the screen and will move you into different positions, both to help the barium flow and to see other parts of the bowel more clearly. Once sufficient barium is in the bowel, a quantity of air is also introduced through the same tube, and this both expands the bowel further, and increases the contrast to make the detail more clear.

At this point, several X-rays will be taken with you in different positions – probably some with you standing up and some with you lying on your side.
You may be given an injection, generally of Buscopan, to relax the muscles of the bowel wall and make the examination easier. Some radiologists and most radiographers will give this routinely at the start of the procedure, unless you have a history of heart disease or glaucoma. Other radiologists may not give it unless they see a lot of bowel spasm on the monitor. This injection may cause some blurring of vision, and you would be advised not to drive for an hour or so afterwards.

Once the radiographer or radiologist is satisfied that sufficient X-rays have been taken of the large bowel, the tube will be removed, and you will be allowed to leave the X-ray room and go to the toilet. Afterwards, you may require a further plain, ordinary X-ray.

**Will it be uncomfortable?**

This examination should not hurt a lot, although occasionally a patient may feel a cramp-like pain which may persist for a while afterwards. However, during the examination, you might feel the slight discomfort associated with the bowel becoming full.

Some patients are obviously worried about being unable to hold on to the barium and making a mess on the X-ray table. It is obviously important to try and hold on to the barium and air by keeping the muscles of your bottom very tight. It is possible that not enough information will be obtained if you do release the barium on the table. However, it is accepted that this can sometimes happen so try not to worry too much about this.

**How long will it take?**

The whole process of taking images will take about 15 minutes. Unless you are delayed by having to wait, such as for emergency patients, your total time in the department should be about one hour.

**Are there any side-effects?**

You will want to visit the toilet immediately after the procedure, and may need to go several times during the rest of the day.

**When will you get the results?**

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The scan will be examined after your visit and a written report on the findings sent to your referring doctor which is normally available in 14 days.

Finally

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

Other sources of information

Websites
For general information about radiology departments, visit The Royal College of Radiologists' website: www.goingfora.com

NHS Direct
For health advice or information you can call NHS Direct on 0845 45647 or visit the website: www.nhsdirect.nhs.uk

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This leaflet has been prepared by the Clinical Radiology Patients' Liaison Group (CRPLG) of The Royal College of Radiologists.
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