

# patient information

Screening Examinations  
including IVP and Barium Studies



QUEENSLAND  
**X-RAY**

## SCREENING EXAMINATIONS

### What are Screening Examinations?

Screening Examinations, also known as Fluoroscopy, are studies of a moving body structure and are obtained as "live" X-ray images. A continuous X-ray beam is passed through the body part being examined and is transmitted to a TV-like monitor so that the body part and its movement can be seen in detail. Screening Examinations are most commonly used to examine the digestive tract.

### What is an Intravenous Pyelogram?

An Intravenous Pyelogram is a type of Screening Study and provides images of the urinary tract (including kidney, bladder and ureters), to demonstrate its size, shape and to give an indication of its function.

The examination is performed by a Radiographer (a technologist trained in medical imaging) and the images are read by a Radiologist (a doctor who specialises in medical imaging).

### Preparation

You will need to fast from food and fluids for at least three hours before the examination. In many cases you will also need to undertake bowel preparation to allow the kidneys to be better displayed.

### Procedure

Prior to the examination you will be asked to change into a gown to prevent your clothes from causing confusing shadows on the images. You may also be asked to empty your bladder.

You will need to lie down on the X-ray table for the examination. After the Radiographer has taken the first series of images you will be given an injection of contrast (usually into the vein on the inside of the elbow or on the back of the hand). Contrast, a special fluid that circulates in the blood, is filtered out by the kidneys and shows on the images that are taken. The needle is usually left in place for between 10 and 15 minutes, in case a further amount of contrast is required.

As with all intravenous injections, there is a small chance of an allergic reaction to the contrast. We use modern non-ionic contrast which rarely causes any significant reactions although some patients may experience a warm 'flushed' feeling for a few seconds after the injection. Please tell the staff if you have had any form of reaction to X-ray contrast before, or if you are an asthmatic.

Several series of images are taken at regular intervals, during the Intravenous Pyelogram Examination, to assess the speed and efficiency of kidney function. As breathing may blur the images, you will be asked to hold your breath for a few seconds.

A wide band may be placed around your waist at some stage and tightened for a few minutes to stop the contrast from draining to the bladder through the ureters (the tubes joining the kidneys to the bladder).

You may be given water to drink after the band is removed to help the bladder fill with the contrast. This can take between 15 and 30 minutes.

Finally, you will be asked to empty your bladder to assess its function before the last series of images are taken. You can then get dressed.

### **Examination and reporting time**

The examination will take approximately one hour, occasionally longer if a kidney is obstructed. You may wish to wait for your results or alternative arrangements can be made to collect them at a later stage.

### **What is a Barium Meal?**

A Barium Meal is a Screening Study used to demonstrate the anatomy of the oesophagus (gullet), stomach and duodenum and to display their function (for example swallowing, emptying of the stomach and the passage of food through the intestine).



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### **Preparation**

You will need to prepare for the examination by fasting from food and fluids for at least six hours before your appointment. This ensures that the stomach is empty, as any food or fluid may give misleading results. In addition, you will be requested to refrain from smoking for eight hours before your appointment as smoking causes the stomach lining to secrete fluid which reduces the quality and accuracy of the examination.

### **Procedure**

Prior to the examination, you will be asked to change into a gown to prevent your clothes from causing confusing shadows on the images.

You will be given a cup of heavy, chalky-tasting fluid (barium sulphate) as well as some small amounts of other fluids and/or powder to swallow. These will outline your stomach and other areas to assess the swallowing mechanism. These fluids fill the stomach, with a combination of barium and gas, to expand the walls of the stomach and show the stomach lining.

An intravenous injection may be given to relax the stomach and improve the ease of interpretation of the examination. You may feel bloated however this will improve quickly. You will need to be turned into various positions on the X-ray table to allow images to be taken of all parts of the stomach and small bowel.

**NOTE:** Some patients may experience constipation for a few days afterwards as the barium passes through the bowel. Drinking fluid helps and a mild laxative may be useful if symptoms persist.

### **Examination and reporting time**

The examination will take approximately 30 minutes. In the instance where your doctor requires an examination of the small intestine, the procedure may take a further one to four hours.

You may wish to wait for your results or alternative arrangements can be made to collect them at a later stage.

## What is Barium Enema?

A Barium Enema is a Screening Study used to demonstrate the anatomy and any abnormality of the large bowel (colon).

## Preparation

You will need to prepare for the examination using the special preparation kit available from your doctor or our practice. The kit clearly explains the need to have the bowel correctly prepared using laxatives and a suppository, commencing the day before the examination.

## Procedure

Prior to the examination, you will be asked to change into a gown to prevent your clothes from causing confusing shadows on the images.

You will lie on the X-ray table whilst a small, flexible and lubricated tube is placed into the rectum. Occasionally, a special tube with a small inflatable cuff at the end may be used.

Barium, and then air, is passed into the bowel through this tubing. The air is used to help the barium fluid flow around the bowel and you will be turned into varying positions (for example onto your stomach or your side) to help this take place.

An intravenous injection may be given to relax the bowel. In some patients this may reduce discomfort and improve the ease of interpretation of the examination.

You will be asked to hold your breath for a couple of seconds while the images are being taken. There is usually some discomfort during this procedure. Once the examination is complete, most of the fluid and air is drained away before the tube is removed. You will be able to go to the toilet before dressing.

It is recommended that you have a responsible adult escort you home by private means, as loose bowel motions may occur.

## Examination and reporting time

The examination will take approximately 45 minutes. You may wish to wait for your results or alternative arrangements can be made to collect them at a later stage.

Should you require further information regarding Screening Examinations, please contact Queensland X-Ray or visit our website at [www.qldxray.com.au](http://www.qldxray.com.au).

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