

## Barium Meal and/or Swallow

### WHAT IS A BARIUM MEAL/SWALLOW?

A barium meal/swallow is an x-ray examination of the first part of the digestive system; the swallowing mechanism, the oesophagus, stomach and the first part of the small bowel. To make these structures visible on x-rays, you will be asked to swallow a liquid called barium sulphate. Barium is a dry, white, chalky powder that is mixed with water to make a thick, milkshake-like drink. It absorbs x-rays and appears white on x-ray images. When swallowed, barium coats the inside walls of the oesophagus and stomach so that the swallowing motion and the size and shape of these organs is visible. This process shows differences that might not be seen on standard x-rays.

Fluoroscopy (an x-ray 'movie') is often used during a barium meal/swallow and allows the radiologist to see the movement of the barium through the digestive system as a person drinks.

### REASONS FOR THE PROCEDURE:

A barium swallow may be performed to diagnose structural or functional abnormalities of the oesophagus and stomach. These abnormalities may include, but are not limited to:

- **Hiatal hernia:** upward movement of the stomach, either into or alongside the oesophagus.
- **Structural problems:** such as diverticula, strictures, or polyps (growths).
- **Oesophageal varices** (enlarged veins).
- **Muscle disorders** such as dysphagia (difficulty swallowing) or spasms (pharyngeal or oesophageal).
- **Achalasia:** a condition in which the lower oesophageal sphincter muscle doesn't relax and allow food to pass into the stomach.
- **Gastro-oesophageal reflux disease and ulcers.**
- **Tumours.**

### BEFORE THE PROCEDURE:

- You'll be asked to not eat or drink for four hours before the procedure.
- If you're pregnant or suspect that you may be pregnant, you should notify your doctor before you make an appointment.

### DURING THE PROCEDURE:

- You'll be asked to remove any clothing and jewellery and put on a gown.
- You'll be asked to stand on a step of the upright fluoroscopy table. The radiologist will ask you to take a swallow of the barium liquid.
- As you swallow the barium, the radiologist will take a series of x-rays and/or fluoroscopy to observe the barium's passage down the oesophagus and into the stomach.
- You may also be required to swallow some granules which release gas inside the stomach so that the stomach is distended and more optimally examined.
- The fluoroscopy table is then moved into the horizontal position.
- You may be asked to roll around on the table to check for reflux of fluid from the stomach back up the oesophagus.
- You may be asked to hold your breath at certain times during the procedure.
- Once all required x-rays have been taken, you'll be assisted from the table.
- This examination takes approximately 20-30 minutes.

## Barium Meal and/or Swallow CONTINUED

### AFTER THE PROCEDURE:

- You may resume your normal diet and activities after a barium meal/swallow.
- Since barium isn't absorbed into the body but passes through the entire intestinal tract, your bowel movements may be lighter in colour until all of the barium has been excreted.
- Barium may also cause constipation after the procedure if it isn't completely eliminated from your body. You may be asked to drink plenty of fluids and eat foods high in fibre to expel the barium from the body.

### RISKS OF THE PROCEDURE:

- Because this examination is done under x-ray guidance, should notify your doctor prior to booking an appointment if you are pregnant or suspect you may be pregnant.
- Constipation may occur if the barium isn't completely eliminated from the body.