**WHAT IS IT?**
- Barium swallow is an X-ray procedure which is used to examine the oesophagus.
- The procedure has been shown to give good detail of the mucosa and is also useful for showing changes in oesophageal motility.
- It takes about 10-20 minutes to perform.
- It is usually carried out in the X-ray department by a radiologist and radiographer.
- The patient swallows a solution of barium sulphate, which provides a contrast to enhance X-ray images.

**WHY IS IT PERFORMED?**
- As a diagnostic tool for patients with symptoms such as dysphagia (difficulty swallowing), heartburn and regurgitation.
- As videofluoroscopy in order to monitor patients with long-term swallowing difficulties.

**CONTRAINDICATIONS**
- None.

**PATIENT PREPARATION**
- The radiologist should be supplied with the patient history.
- A full explanation of the procedure should be given to the patient.
- If views of the stomach are required, patient is nil by mouth for 4-6 hours prior to the procedure.
- Some outpatient centres request the patient not to smoke for three hours prior to the procedure.

**THE PROCEDURE**
- Patient lies prone on an X-ray table.
- A mouthful of barium is given through a straw.
- Patient is asked to swallow and images are taken as barium passes through oropharynx into oesophagus.
- Radiologist views the passage of barium until it enters the stomach.
- As the barium passes the lower oesophageal sphincter the radiologist asks the patient to take a deep breath to assess the effect of diaphragmatic movement.
- Several swallows may be used.
- For patients with problems swallowing solids the barium may be mixed with food, such as biscuits.
- When sufficient images have been obtained the patient can sit up.

**SAFETY CONSIDERATIONS**
- During the procedure:
  - Observe patient’s tolerance of the procedure, for example pain;
  - Provide reassurance, commentary and support;
  - Watch out for any unexpected events, such as vomiting, cardiorespiratory depression, or vasovagal reactions;
  - Ensure resuscitation equipment is to hand.
- Note: each barium study exposes patients and staff to radioactivity. The longer the study, the greater this exposure will be. As a result, all staff take precautions to prevent exposure and the radiographer will document the amount of exposure each patient receives.

**AFTERCARE**
- Assess and document patient’s status on completing the procedure.
- Document all care given and any unusual events that occur.
- Provide written instructions regarding diet, medications, activity restrictions, follow-up and possible complications.
- The patient’s stools may be lighter in colour for a few days due to the ingestion of barium.

**POTENTIAL RESULTS**
- Normal swallow with good coordination and peristalsis. Normal oesophageal mucosa.
- Oesophageal: webs; neoplasms; dysmotility; achalasia; diverticula; gastro-oesophageal reflux disease and oesophagitis; poor swallowing coordination.

**POTENTIAL COMPLICATIONS**
- Major complication: aspiration.
- Minor complications: constipation, nausea and belching.

**REFERENCES**

---

*The information given serves as a general reference. Nurses should consult their individual trust policies on clinical procedures.*