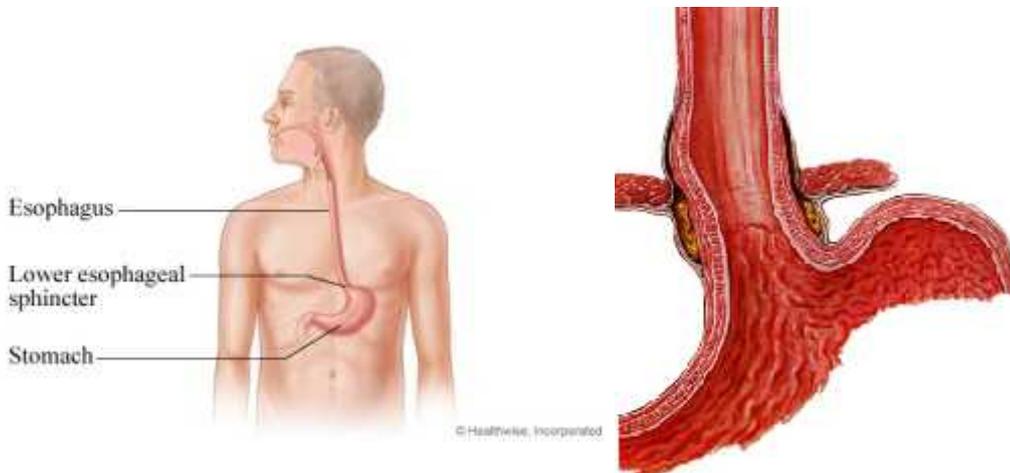


OESOPHAGEAL MANOMETRY AND REFLUX TESTING

WHAT IS OESOPHAGEAL MANOMETRY?

Oesophageal manometry (also called oesophageal motility testing) is a procedure to measure the strength and function of your oesophagus and provides information about how the muscles in your throat and oesophagus work as food and liquids pass from the mouth to the stomach. Oesophageal manometry is performed for the following reasons:

- To evaluate the cause of reflux (regurgitation) of stomach acid and other contents back up into the oesophagus (gastro-oesophageal reflux disease or GORD).
- To determine what the cause is of difficulty with swallowing food.
- To determine the cause of non-cardiac chest pain.



Oesophagus

Lower Oesophageal Sphincter

WHAT CAN BE LEARNED FROM THE OESOPHAGEAL MANOMETRY TEST?

- The most common use for oesophageal manometry is to evaluate the lower oesophageal sphincter in patients who have gastro-oesophageal reflux disease (GORD).
- Manometry often can identify weakness in the lower oesophageal sphincter that allows stomach acid and contents to come back up into the oesophagus.
- Manometry can measure the effectiveness of peristalsis which can help surgeons see if you are suitable for anti-reflux surgery, for example.
- Manometry can diagnose several oesophageal conditions that result in food sticking after it is swallowed. For example, achalasia is a condition in which the muscle of the lower oesophageal sphincter does not relax with each swallow. As a result, food is trapped within the oesophagus. In this case, manometry reveals an absence of the waves and the simultaneous contraction of the muscle along the oesophageal body.
- Abnormal function of the body of the oesophagus may result in food getting stuck. In patients with scleroderma if the waves of muscular contractions fail to occur.
- We can also see if the muscles are going into 'spasm' which may lead to chest pain and food obstruction.

THE PROCEDURE

- The procedure takes about 45 minutes from start to finish.

- The physiologist/scientist will verify that you had nothing by mouth in the last 6 hours prior to the test (except for small amounts of water).
- Your nostril and throat is numbed with a topical anaesthetic while you are sitting upright.
- A thin flexible tube about 2-3mm is then passed through the nostril, down the back of the throat into the oesophagus and the stomach, while you swallow water. The tube has sensors on it that detect pressure changes along the oesophagus. It will be positioned so that the pressure sensors cover the entire length of the oesophagus.
- With the tube inside the oesophagus, you will lie or sit in a comfortable position.
- You will be given small sips of water during the test to record the progression of the swallow.
- The contractions of the oesophageal muscle will be measured at rest and during swallows.
- Pressure recordings are made over about ten minutes and this tube is then removed.
- The results of the manometry test are displayed as a graph with a wave pattern that can be interpreted to determine if the oesophagus is functioning normally.
- We also measure impedance which allows us to detect the movement of liquid and gas which may be swallowed or refluxed from the stomach. This tells us whether your swallows are effective or not.

WHAT IS GASTRO-OESOPHAGEAL REFLUX MONITORING?

A second part of the test is pH and impedance monitoring which is a procedure where the pH (or level of acidity) is recorded for a prolonged period. An acid-sensitive catheter is placed in the oesophagus and is attached to a small monitoring device that records changes in oesophageal and stomach pH over an extended period of time (up to 24 hours). If you have throat symptoms we sometimes have an additional sensor in the throat to see if acid is coming up very high (so called LPR – laryngo-pharyngeal reflux). This test provides information on the severity and pattern of reflux. The information is helpful both to confirm the diagnosis of reflux and to tailor therapy for the individual patient. The impedance measurement detects the direction of liquid flow so we can determine whether the acid sensed by the probe has come from the stomach or has been swallowed. The pH and Impedance probe is very small (2mm in diameter) and you can go home with it in place and continue with your normal daily activities, returning the following day to have the probe removed, which takes only 5-10 minutes.

HOW IT FEELS

When the tube goes through your nose or mouth into your oesophagus, you may feel like coughing or gagging, but this is very rare. The test may be easier if you try to take slow, deep breaths. You may not like the taste of the lubricant on the tube. After the test is over, your throat may feel a little irritable. However, this should improve within a few hours or so.

SIDE-EFFECTS OF THE PROCEDURE

The procedure is not painful because the nostril and throat is anesthetised, but it may feel slightly uncomfortable.

- Once the tube is in place, patients can talk and breathe normally.
- The side effects of oesophageal manometry are minor and include mild sore throat and rarely nose bleed.
- You may experience some temporary discomfort in your throat. Over the counter throat lozenges may give some relief.



- Very rarely, during insertion, the tube may enter the larynx (voice box) and cause you to cough. When this happens, the problem is quickly recognized and the tube is gently moved back a few centimetres. If you listen carefully to the instructions and swallow when asked to this does not happen.

MEDICATION

Unless your consultant tells you otherwise, you should stop all stomach medication; proton pump inhibitors (Losec, Nexium etc) for five days before the test, H2 receptor antagonists (Zantac, Tagamet etc) for two days before the test and antacids (Gaviscon, Milk of Magnesia etc) for one day before the test. You should also stop all pro-motility agents (Domperidone, Azithromycin etc) two days before the test. You may take all other essential medicines, but if in doubt please ask us.

PREPARATION

You should not eat for 6-hours before the test but you can have water up until the start of the study.

CLOTHING:

As you will be going home with the pH probe in place wearing certain clothes will make your life easier when getting changed. Try to wear trousers / skirts and loose tops / t-shirts. Dresses and Tunics should be avoided if possible. You will not be able to bath or shower. You may choose to take the probe out yourself at home prior to traveling back into the unit. This is easy to do and convenient but you are welcome to come back and get a nurse to remove the probe too.