High Resolution Oesophageal Manometry and 24 Hour Ambulatory pH Studies
An information guide
High Resolution Oesophageal Manometry and 24 Hour Ambulatory pH Studies

IMPORTANT!! Please read section 2 with regard to stopping medications (unless specified otherwise).

Introduction

Your doctor may want you to have an oesophageal manometry and/or a 24 hour ambulatory pH (a measure of acid content) study because you have symptoms of dysphagia (difficulty in swallowing), odynophagia (painful swallowing), chest pain or frequent heartburn. These tests will help the doctor understand what is happening in your oesophagus (gullet or food pipe).

The oesophagus is a long muscular tube that propels food from the mouth to the stomach. There is a strong ring-like muscle at the top of the oesophagus called the upper oesophageal sphincter (UOS). There is a corresponding sphincter at the lower end of the oesophagus, at its junction with the stomach, called the lower oesophageal sphincter (LOS) which in its normal state prevents stomach contents, including acid, from backing up into the gullet (commonly called reflux). Abnormalities involving the LOS can give rise to symptoms such as heartburn and difficulty swallowing. Abnormal spasm of the gullet can give rise to chest pain.
**What are these studies?**

Oesophageal manometry is a test that measures the pressure in your stomach and gullet.

An ambulatory 24 hour pH study is a test that records how frequently acidic fluid comes up from your stomach into your gullet over a 24 hour period. If you are going to have a pH catheter placed for 24 hour ambulatory monitoring you will need to have an oesophageal manometry test done first, to determine the correct placement of the pH catheter.

If you are taking any of the following medications, unless specified otherwise, you must stop taking them as below before the test as they can interfere with the results.

**If you are on:**
- Omeprazole (Losec)
- Lansoprazole (Zoton)
- Pantoprazole (Protium)
- Rabeprazole (Pariet)
- Ondansetron (Zofran)
- Esomeprazole (Nexium)

**You must stop them 1 week before, unless told otherwise**

**If you are on:**
- Ranitidine (Zantac)
- Cimetidine (Tagamet)
- Nizatidine (Axid)
- Famotidine (Pepsid)
- Cisapride
- Domperidone (Motilium)
- Metoclopramide (Maxalone)

**You must stop 3 days before, unless told otherwise**
If you are on antacids such as
Gaviscon
Maalox
Rennies
Asilone
Gastrocote
Settlers
Algicon
You must stop 24 hours before, unless told otherwise
You may take other tablets as normal. If you are diabetic please continue with your tablet or injections, provided that you take your regular breakfast. If in doubt, contact a member of staff at GI Physiology Unit/Endoscopy Unit.
You must have nothing to eat or drink (except for water) for 6 hours before your appointment time.
In the GI Physiology Unit you will be met by the GI Physiologist who will check your personal details with you. As the test does not require any sedation, you may drive home.

Manometry testing
This is the gold standard test for diagnosing a condition called achalasia, which causes difficulty in swallowing. It is also done prior to surgery for reflux disease and in the evaluation of patients with chest pain thought not to be due to heart disease. The test is undertaken using the High Resolution manometry equipment.
You will be taken into the procedure room where the GI Physiologist / doctor will go through your medical history in detail. She / he will then explain the procedure to you and you will be asked to sign a consent form. You will not be sedated during the study, which takes approximately 40 minutes.
You will be asked to sit on a couch and a local anaesthetic will be sprayed into your nasal passage to make the procedure
comfortable. Subsequently the High Resolution manometry probe containing several sensors will be passed up your nose and down the back of the throat into your stomach. The probe is then fixed in place with a tape. You will then be asked to relax back on the couch. During the procedure you will be asked to avoid swallowing as much as possible, unless requested, and also to take some small sips of water at regular intervals. You will also be asked to swallow pieces of bread during the study period if deemed necessary.

At the end of the study the manometry probe is removed.

The study is then analysed in detail and the report sent to the referring clinician with relevant recommendations.

There are no major risks attached to the procedure and apart from some discomfort in the throat, nose, mild nose bleed and very occasional simple fainting the test is reasonably well tolerated. You may drive home after the test. Following the manometry testing you will have either ambulatory pH testing or ambulatory impedance pH testing, whichever is appropriate for you.

**Ambulatory pH study – IMPORTANT !! Please read section 2 with regard to stopping medications (unless specified otherwise).**

This test is usually undertaken to diagnose reflux disease, which means reflux of acidic fluid into the gullet. It is necessary to have this test done if surgery for reflux disease is being considered.

It is usually done following the oesophageal manometry testing. A fine tube will be passed up your nose, down the back of your throat and into your gullet, after spraying your nostril with a local anaesthetic.

The tube will be secured with tape on your face and neck. The tube will be attached to a recording device, which is fitted into a carrying pouch and then secured to your waist. Using a microprocessor, this unit is able to record the pH of the refluxed fluid into the gullet over a 24 hour period. You will be given a diary sheet to record the
times you eat and drink and the times you go to sleep and wake up and any symptoms you may develop during the 24 hour period. Before you leave the unit you will be given detailed instructions by the GI Physiologist, or the doctor doing the test, regarding food and fluid consumption. As it can interfere with the test result you will be asked to avoid all acidic drinks like fruit juice, fizzy drinks, cordials, alcohol, fruit yoghurt etc during the study period.

You will then go home and return the following day for a few minutes, at the time specified on your appointment letter to have the tube and recorder removed.

During the test you are encouraged to continue your normal activities. This is important so that your doctor can get an accurate picture of what is taking place in your oesophagus. You should not remove the battery, press any buttons or get the unit wet (no showers) as this could interrupt or terminate the study.

After the completion of the test, your doctor will study the data with the aid of a computer and the result of the test will be forwarded to your referring hospital consultant or your GP, with appropriate comments and suggestions.

There are no major risks attached to the procedure. Some patients may experience minor discomfort in the throat and occasionally develop nausea and vomiting and runny nose, but the vast majority are able to tolerate the procedure reasonably well.

**Alternatives**

No alternative tests are available for oesophageal manometry. The ambulatory pH study can also be done using the BRAVO capsule, which is a miniature capsule that is attached to the oesophagus. However this is only done in exceptional circumstances at the physician’s discretion.

If you need any further information or clarification on any aspect of the test or have any queries on medication then please contact the
GI Physiologist, GI Physiology Unit /Endoscopy Unit at Rochdale Infirmary on 01706 517547 / 517550 / 517859.
If English is not your first language and you need help, please contact the Ethnic Health Team on 0161 627 8770

For general enquiries please contact the Patient Advice and Liaison Service (PALS) on 0161 604 5897

For enquiries regarding clinic appointments, clinical care and treatment please contact 0161 624 0420 and the Switchboard Operator will put you through to the correct department / service

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