Whittington Health
NHS Trust

Endoscopy Unit

Your appointment for a

Bravo Capsule reflux test

An appointment has been made for you on:

Date: _____

Time: _____

The Endoscopy Department
Day Treatment Centre
3rd Floor
Whittington Hospital
Magdala Avenue
London, N19 5NF

If you have any **queries**, please contact:

Endoscopy Nurse Manager:
020 7288 3819/ 3812
This number is available 9 am – 5 pm Monday to Friday excl. Bank Holidays
Alternatively, you can email:
whh-tr.endoscopypreassessment@nhs.net

Dr Anthony Lerman, Consultant Gastroenterologist

Cristina Aguiar Fernandez, Endoscopy Manager

Important:

Please inform the endoscopy nurse/ doctor if you have:

- a nickel allergy.
- Barrett's oesophagus.
- Crohn's disease.
- taken blood thinners.
- a bleeding disorder.
- a known stricture (narrowing) of your oesophagus.
- known severe oesophagitis (i.e., severe inflammation of your oesophagus).
- varices (abnormal blood vessels in the oesophagus).
- a pacemaker or implantable cardiac defibrillator.

This Capsule is **magnetic.** You must not have an **MRI scan for 30 days** after the procedure and this can be life-threatening.

What is reflux?

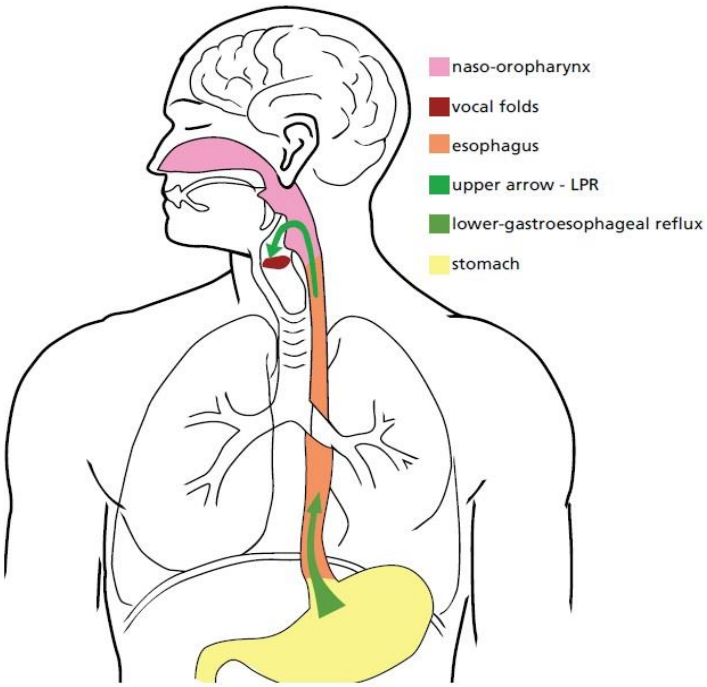

Fig. 1

The stomach contains food and acid. Usually, food and acid pass forwards from the stomach into the small intestine.

However, sometimes stomach contents pass instead backwards up the oesophagus and towards the mouth. This is called reflux.

Reflux sometimes causes classic symptoms like burning behind the breastbone or a sour or bitter taste in the mouth. At other times it can cause chest pain, nausea, difficulty in swallowing or a recurrent or persistent cough/ throat clearing, hoarse voice or sore throat. Some patients notice frank regurgitation of food into the mouth. Sometimes reflux causes no symptoms; this is called “silent reflux”.

All normal, healthy people have a small amount of reflux, but do not have symptoms.

An excessive amount of reflux may not be healthy.

Other terms which may be helpful are “Hypertensive Oesophagus” and “Functional Heartburn

“A “hypersensitive oesophagus” is when there is the same amount of reflux as the healthy population, but the patient nonetheless experiences most of the acid exposure as episodes of heartburn.

“Functional Heartburn” is the presence of heartburn symptoms but without any evidence of abnormal acid exposure/ no correlation to acid exposure.

What is the Bravo reflux testing system?

Fig. 2

Fig. 3

Bravo senses acidity. The oesophagus usually does not contain any acid. However, when reflux occurs, stomach acid enters the oesophagus. It is this acidity in the oesophagus which is recorded by Bravo.

Bravo is a miniature electronic capsule, about the size of a vitamin pill. It is 25mm x 6.5mm x 5mm. It contains a pH (acidity) probe and a radio transmitter. It is attached to the oesophagus. It continuously transmits pH (acidity) data for up to 96 hours to a recorder. The recorder is worn around the shoulder like a small handbag.

After 96 hours the recorder is handed back to the gastroenterology department and analysed.

The Capsule itself naturally detaches and after several days, passes out with the faeces and is flushed down the toilet. You may not realise you have passed the Capsule. You do not have to retrieve the Capsule; it is disposable.

How is the Bravo Capsule inserted?

Fig 4

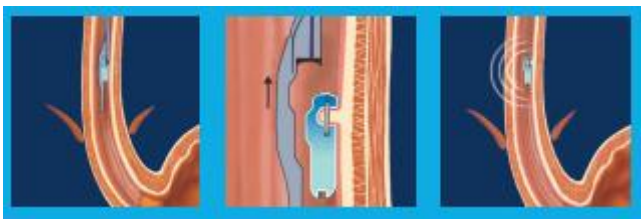

Fig. 5

You will undergo a conventional endoscopy (also called a gastroscopy or “OGD”). This procedure takes about 15 minutes and is performed under sedation. Please see the separate leaflet for endoscopy if you wish to find out more about this procedure – you may have had an endoscopy before. It is only immediately after this procedure that the Capsule will be inserted.

The Bravo Capsule is attached to the end of a long, narrow introducer which is a flexible plastic tube (see Fig. 4). The tube is passed through the mouth and into the oesophagus by a gastroenterologist. When the Capsule is in the correct place, a vacuum is applied, and the Capsule is sucked onto the lining of the oesophagus. To make sure that the Capsule does not fall off, a fine pin is then deployed a bit like a piercing (see Fig. 5). Despite the piercing, the Capsule will fall off eventually. The piercing ought to be completely painless.

Is it uncomfortable?

Any endoscopy can be uncomfortable, whether a Bravo Capsule is attached afterwards.

Some patients experience a vague sensation of something their oesophagus once the Capsule is attached.

Some patients can feel the Capsule when they eat when food passes by. Chewing food carefully and drinking liquids may minimise this sensation.

Very rarely, patients can experience pain in the chest. Paracetamol helps. If the pain is severe, however, you will need to go to Accident and Emergency.

How do I prepare for the test?

You will receive a letter from the endoscopy department with instructions. You must follow these.

You must not eat or drink for six hours prior to the procedure (although you may drink small quantities of clear water up to two hours prior to the procedure if you feel especially thirsty).

If you are diabetic or have Parkinson's disease, we will issue you with specific advice.

You will need to **stop certain medications**. You can **re-start** these medications **once the recording is completed,** and the device has been returned to the hospital as these drugs can interfere with the device and lead to falsely reassuring results.

7 DAYS BEFORE THE TEST – STOP PPIs:

"Proton Pump Inhibitors" or "PPIs". Examples include:

- Omeprazole (Losec or Prilosec)
- Esomeprazole (Nexium)
- Pantoprazole (Pantoloc)
- Lansoprazole (Zoton)
- Rabeprazole (Pariet)

2 DAYS BEFORE THE TEST – STOP any other acid drug:

Gaviscon

"H2 Receptor Blockers" or "H2RAs". Examples include:

- Ranitidine (Zantac)
- Famotidine (Pepcid)
- Cimetidine (Tagamet)

Drugs which cause the oesophagus to contract:

- Metoclopramide (Maxolon)
- Domperidone (Motilium)

Big calcium carbonate tablets for bone protection. Examples include:

- Adcal/ Adcal D3
- Accrete/ Accrete D3
- Calcichew/ Calcichew D3
- Calceos
- Calvive
- Oesteocare
- It is fine to take Vitamin D3 alone: it is the calcium carbonate which cannot be taken as it neutralises stomach acid. It is also fine to keep taking other bone protection agents (e.g., alendronic acid).

Other simple antacids containing calcium, magnesium or aluminium:

- Peptac
- Maalox
- Rennies
- Bisodol
- Tums
- Aludrox
- Magnesium trisilicate
- Etc.

Alginate rafting agents

You can re-start these medications once the recording is completed, and the device has been returned to the hospital as these drugs can interfere with the device and lead to falsely reassuring results.

What do I need to do after the Capsule is inserted?

After your device is attached, you will be given written instructions and a paper diary as to what to do next.

Wear the recorder for 96 hours or keep it near your bedside in arm's reach.

Do not take antacids, PPIs or any of the drugs we asked you to stop until the recording is completed.

Whenever you get symptoms, eat a meal or snack, drink anything other plain water or lie flat you will need to press a button on the recording device and log your activity in the diary. Clear details will be provided nearer the time.

You will be free to leave the hospital and continue as normally as possible (please also undertake those activities which trigger your symptoms).

Do not allow the recorder to get wet.

You must return the recorder 96 hours after the capsule has been inserted.

What are the risks of the procedure?

All procedures carry risks. The principal risk is that of the endoscopy, as discussed in the endoscopy information leaflet. Risks specific to this procedure include:

Non-attachment of capsule - we may not be able to collect any data.

Early dislodgement of capsule – we may not get a full five days' recording.

Misplaced capsule – this may lead to incorrect or even misleading data.

Poor data reception – this may lead to incomplete data collection.

Bleeding – this may require a further endoscopy.

Perforation – a tear in the lining of the oesophagus – while very unlikely this may require further endoscopy or even surgery.

Discomfort – during and after the procedure.

Capsule removal in patients with intolerable chest pain -– this may require a further endoscopy.

What are the alternatives to the Bravo test?

The principal alternative to Bravo is an "Oesophageal Manometry and 24-hour pH +/- impedance tests". This is a different test. A fine tube is inserted up the nostril, and down the back of the throat into the oesophagus. This tube has pressure sensors every 1 cm and measures the pressures generated by the muscles of the oesophagus as they propel food from the mouth into the stomach. The strength and nature of the swallow is measured when drinking water +/- eating food. The tube is then removed and replaced with a finer wire which measures acidity +/- impedance in the oesophagus and stomach. The wire is connected to a recording device and left in place for 24 hours. The recording device is like the recording device for Bravo. After 24 hours the wire is removed from the nostril and the recording device returned for analysis. Please ask your referring clinician for further details and about any comparisons.

Another alternative is a "Barium Swallow" or a "Barium Meal". Barium (or Gastrografin) is swallowed, and the swallow is viewed in real time under X-ray. Please ask your referring clinician for further details and about any comparisons.

When will I get my results?

We aim to analyse your data and provide a report within 1 - 2 weeks of the device being returned to the hospital. Once a report has been issued, it will be immediately available for your referring clinician to see. Your referring clinician will then liaise with you regarding next steps.

Thank you for taking the time to read this leaflet

Patient advice and liaison service (PALS)

If you have a compliment, complaint or concern please contact our PALS team on 020 7288 5551 or whh-tr.PALS@nhs.net

If you need a large print, audio or translated copy of this leaflet please email whh-tr.patient-information@nhs.net. We will try our best to meet your needs.

Twitter.com/WhitHealth
Facebook.com/WhittingtonHealth

Whittington Health NHS Trust
Magdala Avenue
London
N19 5NF
Phone: 020 7272 3070
www.whittington.nhs.uk

Date published: 23/09/2022
Review date: 23/09/2024
Ref: EIM/Endosc/BrCapRefTest/02