

# Understanding Bravo pH Study

An information guide



# Unstanding Bravo pH study

**IMPORTANT!!.** Please read section 14 with regard to stopping (unless specified otherwise) medications.

## 1. What is Bravo pH Study?

This is a relatively new method used for detecting the reflux (regurgitation) of acid from the stomach into the oesophagus (gullet). Reflux of acid into the gullet can cause various symptoms such as heartburn, cough, etc. This condition is called gastrooesophageal reflux disease. Damage caused by gastrooesophageal reflux can lead to more serious problems, such as difficulty in swallowing (dysphagia) due to narrowing of the gullet or Barrett's oesophagus (changes in cells which line the oesophagus).

The traditional way to measure pH levels in the gullet is to place a catheter (polythene tube) which is passed through the nose into the gullet. The catheter is then connected to a monitoring device, which is worn on a waist band. This records the pH levels in the gullet over a 24 hour period. While the majority of patients are able to tolerate the procedure relatively well, a small proportion find it difficult to tolerate, due to the discomfort, and some are embarrassed to go out with a catheter in their nose.

Bravo pH study is an alternative method of studying the pH levels in the gullet. It is more patient-friendly as it does not involve passing a catheter through the nose. This allows you to maintain your usual activities without the embarrassment and discomfort associated with the traditional catheter pH study system.

## **2. How does the Bravo System Work?**

The test involves a miniature pH capsule that is attached to your gullet a few centimetres above the junction where your gullet joins your stomach (gastro-oesophageal junction). Throughout the test period, the Bravo capsule measures the pH in the gullet (usually over a period of 48-96 hours) and transmits this information to a pager sized receiver worn on your belt or waistband. You will be given a diary to write down the times when you have symptoms e.g. heartburn, regurgitation, coughing. You will also need to write down the times you eat, drink, lie down and get up.

After the test is completed you return the diary and the Bravo receiver to the GI Physiology Unit, Rochdale Infirmary, at a prearranged date and time. The information from the receiver is uploaded to a computer which provides a detailed report of the degree of acid reflux into your gullet over the 48 hour period.

## **3. How is the Bravo Capsule attached?**

The doctor will first explain the details of the procedure to you and then ask you to sign your consent for the procedure. The Bravo capsule is attached to the end of an introducer, which is passed through the mouth. Since the capsule has to be attached to the wall of the gullet, 5-6 cm above the junction where the gullet joins the stomach (gastro-oesophageal junction) the physician will first have to perform a gastroscopy (a flexible camera with a light at the end) to precisely locate and measure the distance of the gastro-oesophageal junction from the mouth. Once the exact measurement is done, the introducer device (with capsule at the end) is then passed through the mouth and positioned in place. The introducer is connected to a suction device. Suction is then applied which enables the capsule to be sucked into place on to the wall of the gullet and attached with a tiny pin. The introducer is then removed.

#### **4. How long does the Bravo Capsule test take?**

The actual procedure of placing the capsule only takes about 15 minutes. After that the test itself lasts for 48-96 hours.

#### **5. What are the benefits of the Bravo System?**

The Bravo pH System provides comfort and convenience. Data is recorded when the capsule and the receiver are within nine feet of each other. What this means is that you can bathe and get a useful night's sleep because you can place the receiver outside the shower or on your bedside cabinet and the test will not be interrupted.

#### **6. Will the Bravo test restrict my diet and activities?**

The test is catheter free and the receiver is small so you may eat normally and go about your daily routine without any restriction. 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.

#### **7. Will I feel the capsule during the test?**

Some patients may get a vague sensation that 'something' is in their gullet. Some patients may 'feel' the capsule when the food passes it. Should you experience this, chewing food carefully and drinking liquids may minimise the sensation.

#### **8. What are the usual problems/ill-effects encountered during the test?**

There is a small possibility that the capsule may fail to get attached to the gullet wall, in which case you will be asked to come back another day for a repeat procedure. Occasionally the capsule may get dislodged prematurely in which case again the test may have to

be repeated. Some patients may get a vague sensation that 'something' is there in their gullet or sometimes experience chest pain.

**9. Will I be able to drive back home after the Bravo test?**

It depends on whether you decide to have the procedure done with or without sedation. If you choose to have it done under sedation, then you will not be allowed to drive for 24 hours.

**10. Will I need to fast prior to the test?**

Yes. You should not eat or drink for at least 6 hours before the test.

**11. Is Bravo suitable for everyone?**

Unfortunately not. Patients with pacemakers, implantable defibrillators or neurostimulators cannot use Bravo. Patients with a history of bleeding disorders, those who are on anticoagulant therapy (unless they can come off it), or patients who suffer from stricture, severe oesophagitis (inflammation of the gullet) or oesophageal varices are not suitable for Bravo. Patients who have an allergy to Nickel cannot undergo this test.

**12. What happens to the capsule after the test?**

Several days after the test, the capsule naturally falls off the wall of the oesophagus and passes through your digestive tract and is eliminated from the body. Rarely if you have an undetected narrowing in your intestine the capsule may get lodged, which will require surgery to retrieve the capsule.

**13. Can I have MRI (Magnetic Resonance Imaging) during the test?**

Patients are restricted from undergoing an MRI study within 30 days of the Bravo procedure.

#### **14. Do I have to stop my medication?**

If you are taking any of the following medications, you should stop taking them before the test unless otherwise instructed.

##### **Stop these 1 week before the test:**

Losec (Omeprazole)  
Zoton (Lansoprazole)  
Protium (Pantoprazole)  
Pariet (Rabeprazole)  
Nexium (Esomeprazole)  
Ondansetron (Zofran).

##### **Stop these 3 days before the test:**

Zantac (Ranitidine)  
Tagamet (Cimetidine)  
Axid (Nizatidine)  
Domperidone (Motilium)  
Famotidine (Pepsid)  
Maxolon (metoclopramide)  
Gastrobid/Gastromax.

##### **Stop these 24 hours before the test:**

Gaviscon  
Malox  
Acilon  
Rennies  
Settlers  
Algicon

If you are on any blood thinners like Aspirin, Asasantin, Clopidogrel or Ticogrelor you will need to discuss this with the GI Physiology Unit, as you will need to stop them if appropriate before the Bravo capsule procedure.

You may take the above antacid preparations if absolutely necessary to control severe symptoms.

Please continue with all your regular medication, if any, unless advised otherwise.

If you are diabetic please contact your diabetic nurse for advice or alternatively contact a member of the staff at the GI Physiology Unit.

If you need any further information or clarification on any aspects of the test or have queries on medication, then please contact the GI Physiologist, GI Physiology Unit/Endoscopy Unit, Rochdale Infirmary on 01706 517547/ 517550/517422.

**If English is not your first language and you need help, please contact the Interpretation and Translation Service**

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