

Wireless oesophageal pH testing

Information for patients attending King's College Hospital site only

This information leaflet answers some of the questions you may have about having a wireless oesophageal pH test for acid reflux. It explains the reasons for having it, the risks and the benefits of the test and what you can expect when you come to hospital. If you have any more questions, please do not hesitate to contact a member of staff.

Endoscopy Unit

Reception	020 3299 3599
Pre-assessment Clinic	020 3299 2775
Nurse's Station	020 3299 4079

Confirming your identity

Before you have a treatment or procedure, our staff will ask you your name and date of birth and check your ID band. If you do not have an ID band we will also ask you to confirm your address. If we do not ask these questions, then please ask us to check. Ensuring your safety is our primary concern.

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Important information

Please make sure you read and follow the instructions in the following sections on pages 5 to 7:

- Do I need to prepare for the test?
- Do I need to stop taking any medication?
- What will I need on the day of the test?
- Things to remember

Failure to follow this advice will result in your appointment being cancelled.

What is acid reflux?

Acid reflux is a condition where acid, produced by the stomach as part of normal digestion, splashes up into the oesophagus (food pipe). Sometimes this causes irritation which can be seen during an endoscopy procedure, but often no irritation can be seen using the endoscope camera.

Sometimes people experience symptoms of acid reflux when there is none taking place. The wireless pH test measures acid reflux, particularly if no irritation can be seen when an endoscopy is performed.

What is a wireless oesophageal pH test?

To measure acid reflux, a small (2cm) probe-capsule is attached to the lining of the oesophagus with a suction pin. The probe will be attached during a procedure called an OGD or gastroscopy. We put a long thin, flexible tube called a gastroscope into your mouth and pass it down into your stomach. The gastroscope is thinner than your little finger and has a camera in its tip which sends video images of the inside your stomach and intestine to a monitor screen.

The probe measures acid reflux and sends the information wirelessly to a small recorder box that you will carry around with you. The box needs to be within three feet of you during the test. The recording lasts 96 hours (4 days). You then return the box back to the Endoscopy Unit. Please see 'What happens after the test' section on page 8.

Why do I need this test?

Your GP (home doctor) or hospital specialist has recommended you have this test to investigate the cause of your symptoms.

It is important that you understand why you are having it. If you are not clear about the reasons, please check with your hospital specialist beforehand, or the endoscopist who sees you on the day of your test.

What are the benefits?

The test will provide information for your doctor to help them make a diagnosis.

What are the risks?

An OGD is an exceptionally safe procedure with rare complications. However, a wireless pH test may not be suitable for everyone. If you have a pacemaker, an implantable cardiac defibrillator, or allergies to metals such as chromium, nickel, copper, cobalt, and iron, you should not have the wireless pH test.

- **Discomfort.** A sore throat, gagging, bloating, burping and the feeling of pressure within the gut is normal. You may also have chest or abdominal discomfort in the first 24 to 72 hours after the procedure. This is very common and an expected part of the procedure. It will settle by itself, but soluble paracetamol can be taken if needed. Sometimes people tell us they can feel 'something' lodged in the food pipe lower down. This can be a strange feeling, but it is not dangerous and will not affect food going down.
- **Dislodged teeth, crowns or bridgework.** There is a small chance that loose teeth, crowns or bridgework can be dislodged during the procedure. If you have any of these, let the endoscopist know.
- **Perforation (a hole in the gut wall)** which may require admission to hospital and possible surgery. Perforation occurs in less than 1 case in 3,000.
- **Aspiration (inhalation of stomach contents)**, which may lead to pneumonia, occurs rarely.
- **Drug reactions may occur very rarely.** If you do have a reaction, we will give you medication to reverse the effects.
- **Missed lesions.** Abnormalities are rarely missed.
- **Failure to complete examination.** You may need to undergo alternative examinations. Your endoscopist will explain the reason why or how this will be managed.
- **Drug reactions may occur very rarely.** If you do have a reaction, we will give you medication to reverse the effects.
- **Bleeding.** Tears in the mucosal and submucosal layers of the oesophagus may occur, causing bleeding and requiring possible medical intervention. On rare occasions this may involve a blood transfusion.
- **pH capsule retention.** If the capsule fails to detach from the oesophagus within several days after placement or it causes you discomfort, it may need to be removed by endoscopy.

If any of the above complications take place, you may be admitted to the hospital for observation or further treatment.

Are there any alternatives?

You could have a traditional pH test. This involves a tube coming out of your nose during the test which can be uncomfortable. This might change how you behave during the test, so we get false readings.

The other alternative is to not have the test at all. This would result in no capsule being attached, and therefore no diagnosis being made.

Do I need to have a sedative?

Most people do not need a sedative for an OGD.

If you are anxious about having the test, then a sedative may help. It relaxes you but does not make you unconscious or 'knock you out'. You will still be aware of the gastroscopist passing the tube down your throat.

Will it hurt?

- We usually give you a local anaesthetic spray to numb the back of your throat. This reduces gagging and the sensation of pressure in the back of the throat. You may feel like you want to be sick, but this feeling should stop once the tube reaches your stomach.
- Air is put in your stomach to inflate it. You may feel bloated and might burp.
- You may also feel mild pressure as the tube is passed from your stomach to your small intestine.
- If the endoscopist takes biopsies you may notice a mild pulling sensation or some discomfort.
- The probe itself does not hurt, but some people can feel that there is 'something' sitting in their food pipe. It will not interfere with food passing down.

Do I need to prepare for the test?

- If you are expecting to have sedation for your procedure you must arrange someone to collect you from the department and stay with you for at least the first 12 hours. We cannot give you a sedative unless you arrange this.
 - See 'Do I need to have a sedative' on page 5 for more advice.
 - See 'Advice after having a sedative' on page 9 for advice about things you should not do during the first 24 hours after having sedation.
- This procedure requires you to have a nursing pre-assessment before the date of your procedure. If we cannot contact you for your pre-assessment, we cannot advise you how to prepare for your procedure. Therefore, the procedure may be cancelled on the day.
- Your stomach must be empty to allow us clear views and reduce the risk of aspiration (please see 'What are the risks?' on page 4).
 - **You must not have anything to eat for six hours before your procedure time.**
 - **You may continue to drink clear fluids up to two hours before your procedure time.**

Do I need to stop taking my medication?

If you are on any of the following medication listed below, please stop taking the following at least one week before your test:

- omeprazole (Losec®), lansoprazole (Zoton®)

- pantoprazole (Protium®), esomeprazole (Nexium®)
- rabeprazole (Pariet®)

Please stop taking the following at least four days before your test:

- cimetidine (Tagamet®), famotidine (Pepcid®)

Please stop taking the following at least two days before your test:

- cisapride (Prepulsid®)
- metaclopramide (Maxalon®)
- domperidone (Motilium®)
- ondansetron (Zofran®)
- Buscopan®
- all other anti-sickness drugs

You must stop all other antacids and indigestion medicines such as Gaviscon®, sucralfate and Rennie® at least 24 hours before the test.

If you are taking any medication which you have been told may thin your blood, inform the nurse during your pre-assessment. You may need to stop taking them for a short time.

If you are taking any other medications, including for diabetes, discuss with the pre-assessment nurse if they need to be stopped before the procedure.

What will I need on the day of the test?

- Please wear comfortable, loose clothing.
- Please bring a list of any medications that you are currently taking.
- Please bring your reading glasses as you will need to read and sign your consent form.
- You may want to bring something to read while you wait or headphones to listen to music or a podcast.
- Please bring your appointment letter if you were sent one.
- You may need to change into a hospital gown for your test, so you may want to bring a dressing gown and slippers to wear for walking to the toilet.
- Please bring a re-usable bag to put your belongings in while you are having your test or procedure.
- Please consider walking or using public transport on your way to the hospital, if you can, to reduce the carbon footprint of your appointment.
- If you use a NIPPY ventilator at home for sleep apnoea, please remember to bring it with you.
- There is no general public car parking at our King's College Hospital, Denmark Hill site. Please see the following website for further information:
<https://www.kch.nhs.uk/patientsvisitors/getting-to-kings/parking>

Things to remember

- Your appointment time is the time you are expected to arrive in the department. However, you should plan to be in the Endoscopy Unit for the whole morning or afternoon.
- The department has 5 rooms running at the same time and accommodates emergencies. Someone with a later appointment than you may be seen before you. If you have any concerns, please ask a member of staff.
- Please do not bring children with you unless there is someone to look after them. We do not have any childcare facilities in the unit.
- We cannot take responsibility for any valuables, but your things will be kept with you at all times (on a shelf on the examination trolley).
- The waiting room has limited seating, please be aware that only one person can remain in the waiting room throughout your stay. They will not be allowed into clinical areas.

What happens when I arrive for my test?

When you arrive, a nurse will complete the health assessment with you, if you have not already done so. A member of the clinical team will come and explain the procedure to you.

Consent

We must by law obtain your written consent to any procedures beforehand. Staff will explain all the risks, benefits and alternatives before they ask you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to ask to speak with a senior member of staff.

What happens before the test?

If you are having a sedative, a nurse or doctor will put a cannula into your arm or hand. This is a very thin plastic tube through which they can give any medication required. We will then make you comfortable while you wait for your procedure.

You will then be taken into the endoscopy room, where you will be given the anaesthetic throat spray. The nurse will attach a monitor to your finger to measure your oxygen levels during the test and you will be given oxygen through nose 'prongs'.

You will be given the anaesthetic throat spray when you are seated on the examination trolley. You will then be asked to lie down. A nurse will put a mouthguard in your mouth and ask you to bite gently on it. This makes it easier for the gastroscope to be passed down your throat. If you are having a sedative, this will be given to you just before the start of the test.

What happens during the test?

A nurse will be with you during your procedure to reassure you, talk you through what is happening and clear saliva (spit) from your mouth. The endoscopist will gently put the gastroscope into your mouth and pass it down into your stomach. They will view images of

your oesophagus, stomach and the upper part of your small intestine on a screen. Even with the gastroscope down your throat, there will be plenty of room for you to breathe. You may be asked to concentrate on your breathing during the procedure.

The gastroscope will then be removed and the capsule will be inserted through the mouth and down the throat to the required position. The capsule is pinned to the lining of the food pipe and transmits signals to a receiver. The receiver is about the size of a mobile phone and can either be carried in an over shoulder pouch or clipped onto your belt. This step takes two minutes. The specialist will then pass the gastroscope down a second time, but only a short way, to check that the capsule is in the right place.

Photographs and videos will be taken during the procedure to add clinical information to your medical notes. Additional consent is required for these images to be used for any other purpose.

How long does the test take?

It usually takes no longer than 15 minutes.

What happens after the test?

Recovery time

Your recovery time will depend on whether you have had a sedative. But you should plan to spend the whole morning or afternoon of the test in the Endoscopy Unit.

If you have had a sedative, you will need to stay until the effects have reduced. This usually takes at least 30 to 45 minutes.

If you have not had a sedative, you can leave as soon as you are ready. In either case, we will make sure you have all the documentation and instructions you need. We will also send a copy of the report to your GP.

What happens if not enough information has been recorded?

On rare occasions, the recorder box may fail, or the capsule may dislodge earlier than 4 days. Twenty-four hours of testing is sometimes enough, but if we have not recorded enough information to make a diagnosis, the test may need to be repeated. This is rare.

What happens to the capsule?

The capsule will drop off naturally as part of the normal healing process of the body. It will pass into your stomach and then into the intestine and out through the toilet. This can sometimes take longer than 4 days, but the capsule is so small that you are unlikely to see it come out. The capsule will not be digested by your body or absorbed in any way, and we do not need the capsule back after the test. We only need the recorder and carry strap.

The wireless pH capsule is incompatible with MRI magnetic fields. Therefore, you cannot have an MRI examination for 30 days after the wireless pH test. Undergoing an MRI while the capsule remains in the body can cause serious damage. If you cannot confirm the excretion of the pH capsule, please contact your doctor for evaluation and possibly an abdominal X-ray before undergoing an MRI.

Returning the materials

Once the study is completed, you will be asked to return the recorder, carry strap and your diary sheet to the Endoscopy Unit. It is very important that you return the recorder on the day agreed with the endoscopist as the recorder is needed for use by other patients. Please note we cannot accept returns by post. You, or someone you trust, must return the recorder in person to the Endoscopy Unit.

Advice after having a sedative

If you have a sedative, you may feel tired, dizzy or weak straight afterwards. You must have someone to collect you from the Endoscopy Unit and stay with you for at least the first 12 hours. During the first 24 hours you should not:

- drive a car
- operate machinery (including kitchen appliances)
- drink alcohol
- take sleeping tablets
- sign legal documents
- look after young children and/or dependants alone.

What happens when I go home?

If you had an anaesthetic spray to numb your throat before the procedure, this will take about 45 to 60 minutes to wear off, so please do not eat or drink anything for one hour after your procedure. When this time comes, start by taking sips of cool water. If you swallow these easily, you can eat and drink normally and continue to take your regular medication.

Please contact your GP if you have any of the following symptoms:

- severe or continuous pain in your neck, chest or abdomen
- persistent nausea or vomiting
- pooing black (tarry) stools
- temperature of 37.4°C and higher
- chills.

When will I get my results?

Before you leave, we will give you a copy of your test report. We will also give you any instructions you need. We will also send a copy of the test report to your referring clinician.

Who can I contact with queries and concerns?

If you have any questions, such as what to do about medication, before or after your test, contact the Endoscopy Unit from 9am to 5pm, Monday to Sunday.

Pre-assessment Office **020 3299 2775**

Nurses' Station **020 3299 4079**

If you want to change your appointment or need another information leaflet, contact Endoscopy Unit Reception on 020 3299 3599.

Out of the hours above, for urgent worries or queries, you may contact NHS Direct on 111 or go to your nearest Emergency (A&E) Department and take a copy of the report with you.

The Endoscopy Department is working hard to reduce the impact of its service on the environment, to find out more please see www.kch.nhs.uk/services/services-a-to-z/endoscopy/

Sharing your information

King's College Hospital NHS Foundation Trust has partnered with Guy's and St Thomas' NHS Foundation Trust through the King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas' hospitals. King's College Hospital and Guy's and St Thomas' NHS Foundation Trusts share an electronic patient record system, which means information about your health record can be accessed safely and securely by health and care staff at both Trusts. For more information visit www.kch.nhs.uk.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. They can also pass on praise or thanks to our teams. The PALS office is located on the ground floor of the Hambleton Wing, near the main entrance on Bessemer Road - staff will be happy to direct you.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: 020 3299 3601

Email: kch-tr.palsdh@nhs.net

If you would like the information in this leaflet in a different language or format, please contact our Communications and Interpreting telephone line on 020 3299 4826 or email kch-tr.accessibility@nhs.net