

# Hydrogen/Methane Breath Tests

**This leaflet explains about hydrogen breath tests, including the benefits, risks and any alternatives and what you can expect when you come to hospital.**

**If you have any further questions, please speak to a doctor or nurse caring for you.**

## **What is a hydrogen breath test?**

This is a non-invasive test to investigate gastrointestinal disorders such as small intestinal bowel overgrowth and lactose or fructose intolerance. After fasting for 12 hours, you will be asked to drink a test solution containing lactulose, lactose or fructose.

The concentration of hydrogen in your breath is then measured using a specialised machine over a three hour monitoring period. This can indicate the presence or absence of a gastrointestinal disorder. Typical symptoms which a patient referred for this test may experience are bloating, diarrhoea, dizziness, abdominal discomfort, flatulence, belching, nausea or vomiting.

This test is performed at the Nelson Health Centre, Wimbledon.

## **Why should I have a hydrogen breath test?**

The benefits of these investigations help the doctor to correctly diagnose your problem. This helps to determine the correct treatment plan for you.

## **What are the risks?**

This is a very safe test. You may experience some of the symptoms listed above during the monitoring period.

## Are there any alternatives?

The alternative is a small bowel biopsy. This is an invasive procedure and not commonly performed.

## How can I prepare for a hydrogen breath test?

<b>Four weeks before the test</b>	<ul style="list-style-type: none"><li>• <b>Do not</b> take any antibiotics. If you take life-long, low-dose antibiotics due to immunodeficiency disease do NOT stop.</li><li>• <b>Do not</b> take any probiotics in tablet, liquid or powder form unless you have been taking probiotics daily for more than three months. Probiotic yoghurts are allowed.</li><li>• <b>Do not</b> have any procedure that involves colon cleansing such as a colonoscopy, endoscopy or barium enema.</li></ul>
<b>Seven days before the test – only if tolerated</b>	<ul style="list-style-type: none"><li>• <b>Do not</b> take any laxatives, stool softeners or fibre supplements.</li><li>• <b>Do not</b> take any medications to treat diarrhoea (Imodium/loperamide).</li></ul>
<b>Diabetic patients</b>	<ul style="list-style-type: none"><li>• Oral diabetic medication (Type II) should be discontinued until the end of the test.</li><li>• If you are insulin dependent – please contact your GP/nurse specialist regarding blood sugar control if required.</li><li>• Please be advised that at least <b>six hours</b> of fasting is required prior to the test.</li></ul>

	<ul style="list-style-type: none"> <li>• <b>Bring</b> your blood glucose monitoring device to measure your blood glucose levels during the appointment.</li> <li>• <b>Bring</b> a glucose drink in case it is needed during the test.</li> </ul>
<p><b>One day before your test</b></p>	<ul style="list-style-type: none"> <li>• <b>Follow</b> an elimination diet (see attached list). Please be aware that in case of high hydrogen baseline we might stop the test and ask you to come on a different day after following a more strictly advised diet.</li> <li>• <b>Do</b> have an early dinner, no later than 8pm.</li> <li>• <b>Do not</b> eat or drink anything 12 hours before your test.</li> <li>• <b>Continue</b> to take your normal prescription drugs with water.</li> </ul>

### Asking for your consent

In this test we ask for verbal consent after explaining the procedure. You will be allowed time to ask any questions. You can withdraw your consent at any time, even if you have said 'yes' previously. If you would like more details about our consent process, please ask for a copy of our policy.

### What happens during a hydrogen breath test?

After explaining the procedure and taking consent we will ask you to breathe into a straw connected to a machine that measures the concentration of hydrogen and methane in your breath. We will then ask you to drink a solution containing lactulose, lactose or fructose

(depending on what is requested by your referring doctor). We will measure your breath every 15 or 30 minutes over three hours. You must not eat, drink, smoke or exercise during this period. We ask you to record any symptoms you experience during the test period on the form provided in your appointment.

### **What happens after a hydrogen breath test?**

When the test is over you may leave and return to your normal diet and activity. Please resume any medication that was stopped for the test. The results will be sent to your referring doctor who will either write to you with the results or make an appointment to see you in clinic.

### **Useful addresses**

#### **Outpatients Department, 1<sup>st</sup> Floor**

Nelson Health Centre  
Kingston Road  
Wimbledon  
SW20 8DA

#### **NHS 111 Coronavirus Pod**

Bence-Jones Unit  
St. George's Hospital  
Blackshaw Road  
Tooting  
SW17 0QT

How to find the Bence Jones Unit:

<https://www.stgeorges.nhs.uk/bencejones/>

### **Useful sources of information**

#### **Irritable Bowel Syndrome**

<https://www.nhs.uk/conditions/irritable-bowel-syndrome-ibs/>

## Lactose Intolerance

<https://www.nhs.uk/conditions/lactose-intolerance/>

### Contact us

If you have any questions or concerns, please email us using [giphsiologyqueries@stgeorges.nhs.uk](mailto:giphsiologyqueries@stgeorges.nhs.uk), which is regularly checked. Alternatively, please contact Dr Jamal Hayat's secretary on 020 8725 3569 (Monday to Friday, 9am to 5pm).

**For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)**

---

## Additional services

### Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).

**Tel:** 020 8725 2453 **Email:** [pals@stgeorges.nhs.uk](mailto:pals@stgeorges.nhs.uk)

### NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

**Web:** [www.nhs.uk](http://www.nhs.uk)

### NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

**Tel:** 111

## AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website ([www.accessable.co.uk](http://www.accessable.co.uk)). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



Reference: GAS\_HBT\_LP\_02 Published: May 2022 Review date: May 2024