

# Having a hydrogen breath test to check for conditions affecting your digestive health

Medical Day Case Unit

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Information for Patients

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## Introduction

This leaflet will give you general information about your hydrogen breath test. Please read it carefully. You can share the information with your partner and family (if you wish) so that they can help and support. If you have any concerns or questions after reading this, please call us on (0116) 258 4013.

## What is a hydrogen breath test?

A hydrogen breath test is a safe test. It can give us information about problems with your bowel (intestines). A breath test machine will measure the amount of hydrogen in your breath before drinking a special test liquid (solution). This is known as the baseline measurement. You will then be asked to drink the test liquid. The amount of hydrogen (measured in parts per million) in your breath is then measured again using the breath test machine.

## Why do I need this test?

Your doctor has referred you for this test to test for either:

- lactose intolerance
- small bowel bacterial overgrowth

## Testing for lactose intolerance:

Lactose is a natural sugar found in milk. Lactose intolerance is when your body is unable to breakdown lactose. The problem is usually caused by a lack of a substance known as lactase. Lactase is an enzyme (a protein that causes a chemical reaction to occur). It is normally made in your small intestine.

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

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To give feedback about this information sheet, contact [InformationForPatients@uhl-tr.nhs.uk](mailto:InformationForPatients@uhl-tr.nhs.uk)

If your body produces very little or no lactase, it will not be able to break down the lactose in your digestive system. The unabsorbed lactose passes through your stomach and small bowel into your large bowel. Bacteria in your large bowel reacts to the lactose. It makes fatty acids such as acetate and gases hydrogen and methane. This can cause symptoms like stomach bloating and wind (flatulence). By measuring the hydrogen in your breath over a period of time (after a drink of lactose) we can see if lactose intolerance may be the cause of your symptoms.

### Testing for small bowel bacterial overgrowth:

It is normal for bacteria to live in your large intestine as they aid digestion. However, the small intestine does not usually contain bacteria. Sometimes bacteria can grow in the small intestine. It can affect the digestion of food. This is a condition known as 'small bowel bacterial overgrowth'.

When bacteria digest sugar they produce hydrogen. This escapes from the gut via the lungs. By measuring the hydrogen in your breath over a period of time (after a drink of glucose) we can see if small bowel bacterial overgrowth may be the cause of your symptoms.

Please be aware that if you have been referred to test for both conditions, only 1 test can be done at a time.

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

### Contact us to re-book your test if you:

- have taken antibiotics within 6 weeks before your test.
- have had a bowel procedure (such as a colonoscopy) where you needed to take bowel preparation to cleanse the bowel, in the last 4 weeks.

**Do not take any of the following medications in the 5 days** before your test: Prepulsid (Cisapride), Domperidone (Motilium), Metoclopramide (Maxolon), Movicol, Picolax, Lactulose or any other laxative or medication used to treat constipation.

Avoid probiotic drinks such as Actimel or Yakult.

If you are not sure which medication you should stop, or if you are diabetic please contact your consultant for further advice.

**Follow the diet instructions** on the next page for your meals the day before your test (2 days before if you normally take medication for constipation). Avoid high fibre foods.

### On the day of your test:

- **do not** smoke including the use of electronic cigarettes.
- **do not** eat or drink (except water) from 6pm the night before the test.
- unless told otherwise, **do not** take your normal medication before the test. It may be sugar coated.
- please clean your teeth. Avoid mouthwash unless it is sugar free.

## Diet instructions - menu for the day before your hydrogen breath test:

Drink fluids as normal (including coffee, tea, milk, juice etc., but avoid adding sugar)

- **Breakfast:**

Eggs (scrambled/ poached/ fried) and bacon or  
Toasted white bread (white bread only not brown)

- **Lunch:**

Chicken or fish (no batter/ breadcrumbs/ or seasonings)  
Boiled or freshly mashed potatoes or chips (without the skin)  
Pudding - small portion of ice-cream, sugar free jelly, sugar free custard, or natural plain yoghurt  
Plain pasta with no sauce or other seasonings

- **Evening meal:**

Cheese omelette (no vegetables) **or**  
Eggs (scrambled/ poached/ fried)  
Toasted white bread (white bread only not brown) **or**  
Ham or cheese sandwich (white bread only not brown)

- **Snacks:**

Rich Tea biscuits. (No fruit, vegetables or wholegrain products)

**Remember - nothing to eat or drink (except water) from 6pm the night before the test.**

## What can I expect on the day?

Please come to ward 19 Leicester General hospital. It is in the Medical Day Case Unit Unit. A member of staff from the department will explain the test to you. You will be able to ask any questions that you may have.

You may be on Ward 19 for up to 2.5 hours for a lactose breath test (dairy).

You may be on Ward 19 for up to 1.5 hours for a glucose/lactulose breath test (SIBO).

Please bring something to do with you.

You will blow through a mouthpiece into a hand-held machine that measures hydrogen. The hydrogen in the breath samples are measured. You will drink the test solution (either lactose or glucose). You will then blow into the machine at regular intervals for the required amount of time.

If you have followed the diet instructions correctly and have not had food or drink (except water) from 6pm the day before, the first reading should be low. If this reading is high, we may need to re-book the test for another day.

After the test has finished you can go back to work or return home.

You can continue your prescribed medication once testing is complete.



## Are there any complications or risks?

You should not have any problems after your test, but if you have any concerns please contact your GP and explain the investigation test you have had.

## What happens afterwards?

The results of the test will be sent to your Consultant and discussed at follow up appointment.

## Contact details

Admin office 0116 258 4013

Ward 19 0116 258 4583

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔  
على هذه المعلومات بلغةٍ أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

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