NHS
Royal Berkshire
NHS Foundation Trust

Hydrogen and methane breath test (adult patients)

This leaflet explains the breath test, what is involved and how to prepare for it. If there is anything you do not understand, please ask a member of the team.

What is a hydrogen and methane breath test?

It is a non-invasive, safe, painless and simple way to diagnose conditions that cause gastrointestinal symptoms. The two most common conditions are:

1. **Lactose intolerance:** Lactose is the sugar found in milk. Individuals who are unable to properly digest lactose are referred to as 'lactose intolerant'.
2. **Small bowel bacterial overgrowth:** This is a condition where there are greater than normal numbers of colonic bacteria in the small intestine.

Both of these conditions may cause abdominal pain, bloating and distension, wind and diarrhoea.

If your consultant has referred you for both lactose intolerance and small bowel bacterial overgrowth breath test, please be aware that the tests will be carried out on **two separate hospital appointment visits**.

How is the test performed?

The test involves blowing into a small tube attached to a machine. After a first sample has been taken, you will be asked to drink a sugary solution. Further breath samples will then be collected in the same way as the first one. Samples will be taken every 15 minutes for the first 90 minutes and then every 30 minutes for the remaining time. The test will last between three and four hours.

During the test, you should **not** eat, drink, smoke tobacco products or vape, sleep or exercise. You may like to bring a book, magazine or computer with you.

The monitor is very sensitive to alcohol vapours. On arrival and throughout the test, wash your hands with soap and water but **do not use hospital gel, which contains alcohol**.

How do I prepare for the test?

- Do not have anything to eat for 14 hours before the test. During this time, sips of water only.
- Do not consume alcohol prior to test or use alcohol-based mouthwash.
- On the day prior to the test avoid milk and products such as onions, leeks, garlic, cabbage, beans or any pickled vegetables.
- The last meal on the day before the test should not be large and should ideally not contain any dietary fibre, e.g. bran, whole wheat bread or beans.
- Examples of suitable meals include scrambled eggs on toast, plain rice and chicken or pasta, but **see the food examples section (page 2) for more guidance**.
- Stop smoking and chewing gum 12 hours before the start of the test.
- Medicines (apart from vitamins, laxatives, motility-enhancing drugs) can be taken with plain water on the day of the test. Multivitamins should stop the day before.
- Laxatives, in particular lactulose as well as probiotics, should be discontinued for at least one week prior to the start of the test.
- Please brush your teeth on the day of the test. **Do not use alcohol-based mouthwash.**

- On the day of the test, please try to open your bowels (have a poo) prior to appointment.

Please inform a member of staff if you have:

- Taken antibiotics within the last 4 weeks.
- Had a colonoscopy within the last 4 weeks
- Barium swallow within the last 4 weeks.
- Diabetes.

Examples of foods that <u>can</u> be eaten 24 hours before the test

Breakfast:	• Dry white toast (not brown bread), with / or • Scrambled eggs / poached / boiled egg (not fried eggs) • No butter or milk to be added
Lunch:	• A sandwich using white bread, with chicken (grilled or baked) / tuna / ham • A plain egg omelette (up to 3 eggs) • No butter or milk to be added
Evening meal:	• White rice (not brown) or white potatoes (skin removed), with / or • Lean foods such as grilled / baked chicken, pork, white fish or seafood, (plain, without breadcrumbs or coatings)
Drinks:	• Black tea / coffee (no sweeteners or sugars) • Water

<u>Avoid</u> complex carbohydrates (peas, beans, wholegrains, and vegetables), as well as dairy products, for 24 hours prior to the test.

What happens after the test?

Results will be sent back to the referring doctor / consultant. You can resume your normal activities and diet.

Additional information

The multi-story car park has barriers, so you will need to take a ticket to enter it. Before you return to your vehicle (at the end of your stay), please pay the amount due at a pay station. This will validate your ticket and allow you to exit the car park.

Contacting us

We are happy to answer any questions you may have regarding this appointment. For further information about your procedure, please call the following number: **GI Physiology Department** on **0118 322 7725** (office hours) or email us on rbft.giphysiology@nhs.net

To find out more about our Trust visit <u>www.royalberkshire.nhs.uk</u>

Please ask if you need this information in another language or format.

RBFT GI Physiology, November 2026. Next review due: November 2028.