

Hydrogen-methane breath test

Information for Patients

The hydrogen–methane breath test (HMBT) is a diagnostic procedure used to determine whether the digestion and absorption of carbohydrates in the body are functioning properly. The hydrogen–methane breath test is performed, among other reasons, when lactose, fructose, or other sugar intolerances are suspected, as well as for diagnosing bacterial overgrowth in the intestines.

How to prepare?

An appropriate diet should be followed for three days before the test.

Allowed products:

- Baked or grilled chicken, turkey or fish with a small amount of salt
- Steamed white rice
- Water, unsweetened tea

Prohibited products:

- Whole grain, dark, or rye bread and pasta
- Whole grain breakfast cereals
- Fried foods
- Nuts and seeds
- Muesli and dried fruit
- Fruit and fruit juices, vegetables and vegetable juices
- Bloating-inducing foods (cauliflower, brussels sprouts, cabbage, onion, leek, peas, beans, corn)
- Dairy products and eggs
- Coffee and sweets

The last meal should be eaten at least 12 hours before the test. Small amounts of non-carbonated water or black tea can be consumed.

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On the day of the examination:

- You should be fasting (a small amount of non-carbonated water without additives may be consumed).
- You can brush your teeth (in the case of children, they should not brush their teeth so as to minimise the risk of swallowing any toothpaste particles that might affect the result; brushing with water is acceptable).
- Do not use denture adhesive.
- Do not exercise.
- Smoking is not allowed.
- Chewing gum is not allowed.
- Do not take medication (unless your doctor advised you otherwise).

Medications

- One week before the test, do not take any prebiotics and probiotics, fibre-containing supplements, stool hardeners or softeners, as well as vitamins and products containing fructose or lactose.
- Before the test, you should not be treated with antibiotics, sulphonamides and undergo a colonoscopy for at least 4 weeks.
- All medicinal products prescribed by the doctor should be taken to the test.

What to bring?

- ID card, original copies of previous diagnostic tests and hospital discharges, if the stay was related to the examination.
- If the patient received a paper medical examination referral or an e-referral code – it should be brought with them.

How is the examination performed?

- The test involves the collection of samples of exhaled air kept for a few seconds in your lungs.
- During the test, the Patient is administered a water-based solution of specific types of sugars: lactose, lactulose or fructose.
- Between sample collections, the Patient should avoid any physical activity and remain in the waiting area outside the examination room.
- The test is non-invasive and painless.
- Note – the test lasts between 2 to 3 hours (depending on the type of test). We encourage you to bring children's books or toys to ensure quiet play.