

Hydrogen/Methane Breath Test

What is a Breath Test?

Hydrogen and/or methane gas in the body are produced from intestinal bacteria. Bacteria, normally in the large intestine, produce hydrogen or methane through fermentation of carbohydrates. Substrates containing these carbohydrates, like **Lactulose**, is given orally to test for small intestinal bacterial presence. Some of the hydrogen or methane produced from the bacterial fermentation causes bloating, abdominal discomfort, or diarrhea. The gases are absorbed by the intestinal mucosa and enter the vasculature and transported to the lungs. The gases are then exhaled through normal breathing.

In **Small Intestinal Bacterial Overgrowth (SIBO)**, bacteria exist in the small intestine. **Lactulose**, when used as the challenge dose, is poorly absorbed in the gastrointestinal tract making it the perfect substrate to test for bacterial overgrowth throughout the length of the small bowel (21 feet).

The Guidelines below are to be followed for ALL Hydrogen/Methane Breath Tests

**** 12 HOURS BEFORE YOU START YOUR BREATH TEST, YOU SHOULD FAST. THIS MEANS DO NOT EAT OR DRINK ANYTHING OTHER THAN WATER.**

- Please wait **28 days** to do the test after your last dose of antibiotic therapy, bismuth products, antimicrobial herbals (i.e. oregano oil), or probiotics before your test.
- Please wait **14 days** to do the breath test after bowel purgatives (i.e. for colonoscopy) or barium radiography.
- Please wait **7 days** after your last dose if you are taking **Laxatives**.
- Please wait **2 days** after your last dose if you are taking **Motility Agents**.
- No smoking, including second-hand smoke, for at least 1 hour before or at any time during the breath test.
- No sleeping or vigorous exercise for at least 1 hour before or any time during the breath test.
- No eating or drinking anything at all during the breath test.

The day before your test, please limit your diet.

A low-residue diet that minimizes nonabsorbable carbohydrates (starches and sugars) is strongly recommended. Here are example of foods you **CAN** eat:

- Baked or broiled chicken, fish, or turkey (salt and pepper only)
- White bread only
- Plain steamed white rice
- Eggs
- Clear chicken or beef broth
- Drink water, non-flavored black coffee, or tea

AVOID foods like:

- Pasta, whole grain products, bran, high fiber cereals, granola, etc.
- Fruit juices, applesauce, apricots, bananas, cantaloupe, canned fruit cocktails, grapes, honeydew, peaches, watermelon; raw and dried fruits like raisins and berries.
- Vegetable juices, potatoes, beets, green/yellow beans, carrots, celery, cucumber, eggplant, lettuce, mushrooms, green/red peppers, squash, zucchini, broccoli, cauliflower, brussels sprouts, cabbage, kale, swiss chard, beans, lentils, corn, etc.
- All nuts, seeds, and beans, as well as foods that may contain seeds.
- Milk, cheese, ice cream, yogurt, butter.

Please keep in mind that the test lasts roughly 1.5 hours and that you should plan accordingly the day of your appointment.