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Small Intestine Bacterial Overgrowth (SIBO)

What is Small Intestinal Bacterial Overgrowth (SIBO)?

Small Intestinal Bacterial Overgrowth (SIBO) is defined as the presence of excessive bacteria in the small intestine. Typically, the small intestine contains low levels of bacteria, unlike the large intestine which has a diverse ecosystem.

A common misconception is that SIBO affects only a limited number of people, such as those with an anatomic abnormality of the upper gastrointestinal (GI) tract or those with a motility disorder. However, SIBO may be more prevalent than previously thought.

How is SIBO diagnosed?

The most common way to diagnose SIBO is by undergoing a Hydrogen breath test. This is a test for bacterial overgrowth most commonly using glucose. Glucose is a sugar that will be broken down by bacteria (if present) in the small bowel. The breakdown of glucose releases hydrogen or methane gas. The breath sample will be analyzed for hydrogen or methane content to determine if you are able to properly break down the glucose or if you have bacterial overgrowth. If hydrogen or methane are detected in your expired air, then your breath test is positive and you have SIBO.

What are the symptoms of SIBO?

- Chronic diarrhea
- Bloating
- Abdominal swelling
- Gas and belching
- Abdominal pain or fullness after eating
- Alteration of bowel habits (constipation, diarrhea or alternating with both) You may have one or all of these symptoms.

What is the treatment?

SIBO is typically treated with a short course of antibiotics that help the bacteria go to their normal location.

SIBO can reoccur following treatment. Recurrence may be as high as 10 out of 100 people (10%) in 3 months, 25-30 out of 100 people (25-30%) in 6 months,

and 40-45 out of 100 people (40-45%) in 9 months. This may require re-treatment with antibiotics.

What is a Hydrogen Breath Test?

This is a test for bacterial overgrowth, or intolerance to lactose, fructose, or sucrose. Glucose is a sugar that will be broken down by bacteria (if present) in the small bowel with hydrogen or methane gas as a by-product. The breath sample will be analyzed for hydrogen or methane content to determine if you have bacterial overgrowth.

What can I expect from a Hydrogen Breath Test?

This test requires that you drink a mixture of glucose, lactose, fructose, or sucrose in water.

- Glucose is a sugar that will be broken down by bacteria (if present) in the small bowel with hydrogen as a by-product.
- Lactose is the sugar found in milk and is normally broken down in the small bowel.
- Sucrose is a common sugar found in foods such as candy.

After drinking the solution, you will be asked to breathe into a plastic bag. Breath samples are obtained every 15 minutes. The breath sample will be analyzed for hydrogen content to determine if you have bacterial overgrowth. The test for glucose lasts about 2 hours and the test for lactose, fructose, and sucrose lasts about 2-3 hours.

How do I prepare for a Hydrogen Breath Test?

Please follow the instructions below to ensure a successful test.

Medical Procedures Unit

Hydrogen Breath Test

- 4 weeks before your test:
 - o Stop taking antibiotics
 - o Stop taking bowel preps
- 2 weeks before your test:
 - o Stop taking Pepto-Bismol.
- 1 week before your test:
 - o Stop taking any laxatives
 - o Stop taking any motility Medications (Reglan, domperidone, erythromycin)
- 2 days before your test:
 - o Eat a low carbohydrate and dairy diet. The purpose of this diet is to avoid foods that may produce gas in the intestinal tract for 2 days before your test, as this could cause inaccurate test results.

One day before your test:

Do not smoke or vape for at least 24 hours prior to the test, or any time during the test.

The day of your test:

- You should have nothing by mouth eight 8 hours before the test.
- Do not eat, drink, or smoke until your examination is completed.
- This includes any type of gum or candy.

Strenuous exercise and cigarette smoking should be avoided on the day of the breath test. Smoking increases breath hydrogen levels and increases gastric

transit time. Hyperventilation associated with strenuous exercise decreases breath hydrogen levels.

Can I take my medicine before a hydrogen breath test?

- Yes, take critical medicines, such as those for your heart, blood pressure, breathing, or seizures, with sips of water on the morning of the test.
- Do not take noncritical medicines, including over-the-counter medicines (non-prescription) and supplements unless your doctor or nurse has advised you to.

How do I schedule my hydrogen breath test?

You will receive a requisition from our office for the test to be performed. It is performed at Millard Fillmore Suburban Hospital, address is 1540 Maple Rd, Williamsville, NY 14221 and phone number is Kaleida Lab scheduling line 716-626-7920 (client services). Once we receive the interpretation, which can take up to 1 week, we can decide if antibiotics are warranted.