

FREQUENTLY ASKED QUESTIONS

What is gastroparesis?

Gastroparesis is a condition where food doesn't empty from your stomach normally. Symptoms of gastroparesis include nausea, vomiting, feeling full after only a few bites of food, abdominal pain, bloating and lack of appetite. Gastroparesis can cause weight loss, malnutrition and dehydration. This condition can be especially problematic for individuals with diabetes because it adversely affects glycemic control.

What is spirulina?

Spirulina is a type of blue-green algae that is safe, edible, easy-to-digest and full of nutrients. Spirulina is often consumed as a health food in the United States and is approved by the U.S. Food and Drug Administration (FDA).

What does spirulina taste like?

The taste of spirulina greatly varies depending on its source. The spirulina used in the Cairn GEBT is grown in a dedicated drug manufacturing facility. It is tasteless in the Cairn GEBT meal.

How much will I have to eat?

The GEBT meal consists of 27 grams of scrambled eggs (equivalent to about two eggs) and 100 mg of spirulina. The mixture is re-hydrated with water and cooked in a microwave oven to form a scrambled egg patty. Your doctor will ask you to eat this patty with six saltine crackers and six ounces of water.

Are there any side effects of the test?

There have been no serious side effects associated with the Cairn GEBT. Some patients have reported nausea and abdominal discomfort after eating the GEBT meal. However, these symptoms are consistent with gastroparesis, especially after food consumption.

Is there any radiation exposure with this test?

No. Unlike other tests that may be used to measure how your stomach is emptying, the Cairn GEBT does not use any radioactive materials. It uses a safe, naturally occurring form of carbon to measure how fast your stomach empties

ABOUT CAIRN DIAGNOSTICS

For many patients and physicians, the pathway to a definitive diagnosis can be complex, slow and frustrating. At Cairn Diagnostics our mission is to develop tests that eliminate complexity and create a safer, faster and clearer path to diagnosis.

Use of our patented and validated analytical methods allows us to create diagnostic tests that are user- and patient-friendly and easy to administer, yet powerful in their ability to deliver a definitive diagnosis.

For complete warnings, precautions and contraindications, please see the package insert available at www.cairndiagnostics.com.



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THE CAIRN ¹³C-SPIRULINA GASTRIC EMPTYING BREATH TEST

Patient Guide



THE CAIRN GASTRIC EMPTYING BREATH TEST

Your doctor has recommended the Cairn Gastric Emptying Breath Test (GEBT) to help determine if you have gastroparesis, a condition in which the stomach does not empty properly.

The Cairn GEBT is administered in your doctor's office and measures how quickly a specially designed test meal empties from your stomach. The test will require approximately five hours to complete. However, most of the time you will simply be sitting quietly so you may want to bring a good book, laptop or tablet to enjoy.

Preparing for the Test

Do not have solid foods or liquids (including alcohol) for eight hours prior to having the test. You can have four fluid ounces of water up to one hour before the test.

When you are scheduled for the test, check with your doctor to be sure you are not on any medications that might influence the test. If you are diabetic, notify your doctor or test administrator before taking the test. Your glucose level cannot be higher than 275 mg/dl to take the test.

You should not take another carbon-13 based breath test for 24 hours prior to your Cairn GEBT.

Remember to bring a copy of your health insurance card to your doctor's office.

How the Test Works

Your doctor's office will prepare a special meal for you to eat while you are at his or her office. This meal contains spirulina, a common nutritional supplement that has been modified to contain a special type of carbon molecule called carbon-13. Carbon-13 is a completely safe form of the common element carbon. As you eat the meal, the spirulina is metabolized and carbon-13 becomes present in your exhaled breath. Over time, the amount of carbon-13 you exhale will change depending on how fast the meal is emptying from your stomach.

Before and after you eat this meal, your doctor will collect samples of your breath to determine the amount of carbon-13 you are exhaling. These samples will be analyzed and used to determine how quickly the special meal moves out of your stomach.

WHAT TO EXPECT AT THE DOCTOR'S OFFICE

Before you take the test, your doctor will:

- Ask you about your medical information to complete a form.
- Collect a copy of your health insurance card.
- Test your blood sugar levels if you have diabetes.

To take the test:

1. You will sit comfortably at a table in your doctor's office.
2. The person administering the test will collect two breath samples before you eat the GEBT meal. All you have to do is take a deep breath and exhale into a glass tube through a plastic straw.
3. Using a microwave, the person administering the test will prepare a special meal of scrambled eggs with spirulina for you to eat. He or she will also ask you to eat six saltine crackers and drink a glass of water.
4. After you finish the meal, the person administering the test will take six more samples of your breath. You will provide these samples in the same way you did the first two — by taking a deep breath and exhaling into a glass tube through a straw. The first sample will be taken 45 minutes after you finish the meal.
5. Additional samples will be taken 90, 120, 150 and 180 minutes later. In the time between taking samples, you should sit quietly while your body empties and digests the meal you have eaten. The test ends after taking the last breath sample at 240 minutes (four hours).

Once you have completed all of the breath samples, your doctor will mail your breath samples to the Cairn Diagnostics laboratory for analysis. The results of this analysis will be sent to your doctor and will help determine if you have gastroparesis.

