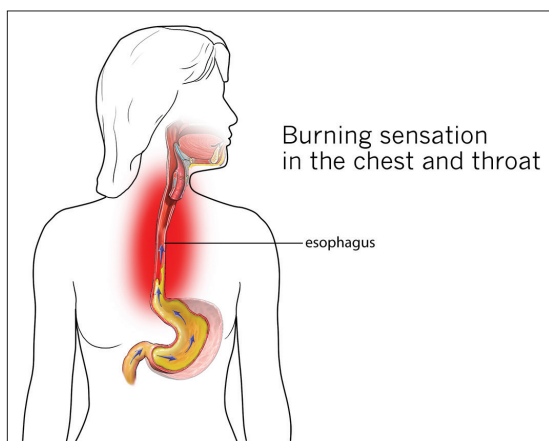


Esophageal pH Monitoring Test

An educational handout for patients



What is esophageal pH monitoring?

The stomach produces acid, which can back up (or reflux) into the esophagus (food pipe) and cause troublesome symptoms such as heartburn or chest pain. **An esophageal pH test measures how much acid is backing up into the esophagus, and if your symptoms are related to acid reflux.** The test is best done over 1 to 2 days; newer wireless pH tests are sometimes done over 4 days. It is usually done in an outpatient clinic. A pH test detects:

- If you have too much acid backing up into the esophagus
- If acid reflux is causing your symptoms
- If the medicines you are taking are working to control your acid reflux.

The test is often done when you are not taking medicine for acid reflux, but sometimes it is done when you are taking medicine.

Do I need a pH test?

A pH test may help to figure out the cause of certain kinds of symptoms:

- Symptoms of gastroesophageal reflux disease (GERD) that won't go away, such as heartburn, difficulty with swallowing (dysphagia), or painful swallowing
- Unusual symptoms of GERD, such as chest pain, asthma, hoarseness, sore throat, or teeth changes (enamel, gums)

A pH test may be done before and after surgery for GERD:

- After surgery for GERD, you may need a pH test if you have symptoms that won't go away.

How do I prepare for a pH test?

- Do not eat or drink anything after midnight. Come to the clinic with an empty stomach.
- If you have diabetes, ask your doctor how to take your diabetes medicine.
- You may have to stop taking other medicines before the test; for example:
 - **Proton pump inhibitors** (omeprazole, Prilosec®, Nexium®, Aciphex®, Protonix®, Zegerid®, Dexilant™, Prevacid®) for 7 days before the test
 - **H₂ receptor antagonists** (Pepcid®, Zantac®, Axid®, Tagamet®) for at least 3 days before the test
 - **Antacids** (Maalox®, Tums®, Rolaids®) on the day of the test
 - **Motility enhancing drugs** (metoclopramide, Reglan®) for 3 to 5 days before the test

Note: Do not stop taking your medicines unless you are told to do so, because a pH test is sometimes done to check how your medicines are working.

- On the day of the test, wear a shirt that buttons in the front.

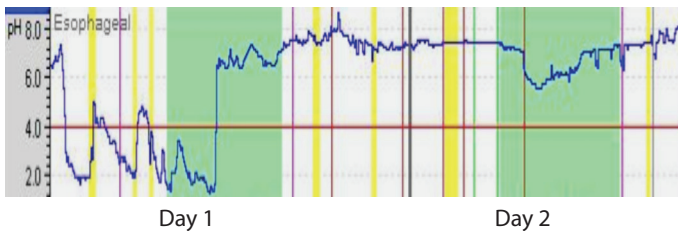
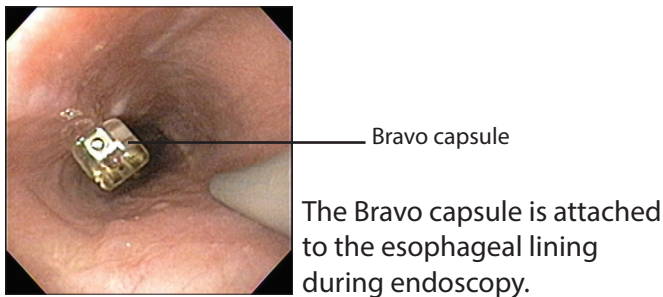
How is a pH test done?

On the day of the test, a technician or nurse will explain the procedure, ask you a few questions about your health, and answer any questions you may have. There are two types of esophageal pH tests. Your doctor will decide which one is best for you.

Catheter-based pH test: First, your nostril is numbed. Then, a thin flexible catheter (tube) is inserted through your nose into your esophagus. The catheter is taped in place to your cheek and attached to a small recorder that you wear on your belt like a pager. This type of pH

test lasts for 24 hours. You will be asked to return the next day. The tape will be removed and the catheter pulled out gently.

Wireless pH test: The wireless pH capsule (also called the Bravo® pH probe) is placed after an esophageal motility study (esophageal manometry) or upper endoscopy. The pH capsule is clipped to the lining of the esophagus using a catheter that is inserted through the mouth and then removed. The capsule sends signals to a small pager-sized recorder that you wear on your belt for up to 48 hours. The wireless pH capsule does not need to be removed because it falls off on its own in 1 to 2 weeks, without doing any harm. You will be asked to return the recorder 48 hours after the capsule was placed.



Tracing obtained from a Bravo recording.

After both types of esophageal pH tests you can immediately return to normal daily activities, including eating and drinking. For both types of tests, you will be asked to keep a diary in which you will record when you eat, drink, and lie down, as well as when you have symptoms. There is a symptom button on the recorder that you will need to press the moment you have symptoms. The nurse or technician will tell you which symptoms to record.

What are the risks of an esophageal pH test?

The esophageal pH test is safe. Complications are rare. With the catheter-based test, your nasal passages may be irritated or nosebleeds may occur, but this is rare. With the wireless pH capsule, you may feel some chest discomfort or a tugging sensation. Rarely, this is severe enough to require removal of the capsule. Uncommon complications include the catheter getting lodged in the esophagus or a tear in the lining of the esophagus.

What are the benefits of an esophageal pH test?

The esophageal pH test will help your doctor decide if you have abnormal amounts of acid reflux or if your symptoms are caused by acid reflux. If your doctor thinks you might need antireflux surgery, this test will help to confirm how much acid reflux you have, and if surgery will help you.

What else do I need to know?

- The wireless pH capsule occasionally malfunctions or falls off before the recording is complete. If this happens the test may need to be repeated.
- Avoid having an MRI (magnetic resonance imaging) test for 2 weeks after the wireless pH test.

What other tests may be used with an esophageal pH test?

Other tests are useful in identifying disorders of esophageal function. These include:

Esophageal motility study (esophageal manometry): This test measures pressures within the esophagus and of the muscles of the esophagus. It is also used to determine the accurate level for placing the pH catheter.

Upper endoscopy: A long flexible tube with a light and a video camera at the end is passed through the mouth into the esophagus. This test is used to examine the lining of the esophagus. It can detect damage to the lining of the esophagus caused by acid reflux.

Esophageal pH-impedance monitoring: This new test is similar to the catheter-based pH test. It can measure both acid reflux and non-acid reflux events.

For a list of doctors in your area who specialize in gastrointestinal motility problems, go to our web site:

[www • motilitysociety • org](http://www.motilitysociety.org)

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