

Esophageal Manometry Test

This test is given to check the pressure and function of the esophagus, the “pipe” that allows food to travel from your mouth to your stomach. It helps evaluate how well the muscles in the esophagus are working when they move food and drink to your stomach.

Esophageal manometry may be done to evaluate the causes of gastric reflux, heartburn, difficulty swallowing, and functional chest pain. It may also be used as part of your pre-op evaluation if you are being considered for anti-reflux surgery,

When Swallowing Isn't Working Right

When you swallow, food moves down your esophagus into your stomach by peristalsis, a series of wave-like muscle contractions that moves food through the digestive tract. If something interferes with normal peristalsis, it can cause chest pain or problems swallowing.

Between the esophagus and the stomach is the lower esophageal sphincter or LES. The LES is a valve made of muscle tissue that stops food and stomach acid from backing up into the esophagus. If the LES opens when it is not supposed to, food and stomach acids can enter the esophagus and cause gastroesophageal reflux disease or GERD. If the LES is not opening during a swallow (when it should), it may be a sign of a condition called achalasia. Achalasia makes it hard to swallow.

Getting Ready

Medications

- **One day (24 hours) before the test:** stop taking calcium channel blockers (verapamil (Calan[®], Isoptin[®]), nifedipine (Adalat[®], Procardia[®]) and diltiazem (Cardizem[®]); nitrate and nitroglycerin products (Isordil[®], Nitrobid[®], Nitrodisc[®], Nitrodur[®], Nitrogard[®], Transderm-Nitro[®], Tridil[®]).
- **Twelve hours before the test:** Do not take sedatives such as diazepam (Valium[®]) or alprazolam (Xanax[®]).
- **Note:** It is preferable not to take opioid (narcotic) medications for 48 hours before the test. Talk to the doctor who ordered the test about whether you should stop these medications.
- We will discuss with you whether you should stop taking any over the counter or prescription blood thinning medications such as aspirin and NSAIDs such as ibuprofen.

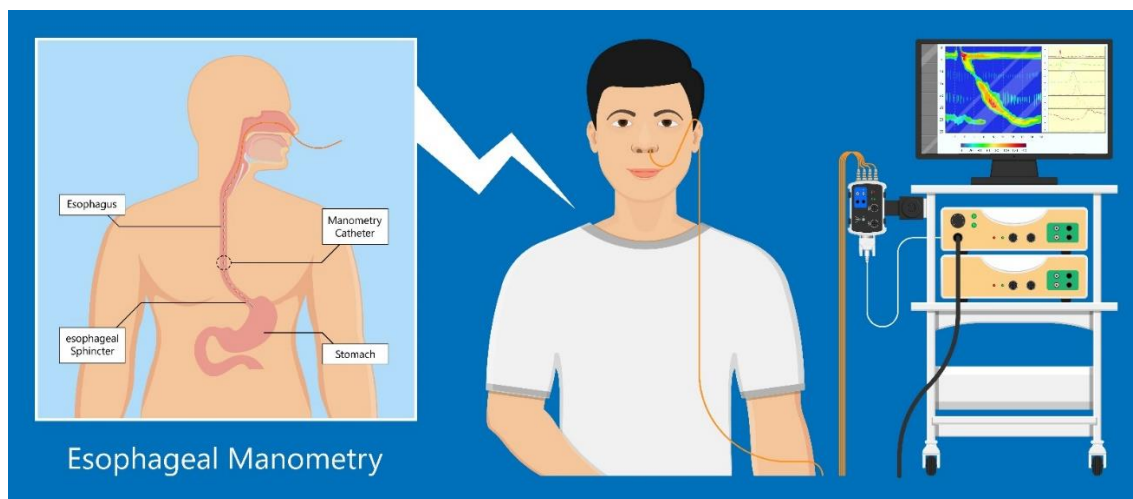
Before the test, tell your doctor if you have a lung or heart condition, allergies, or any other medical conditions.

Eating and drinking

Do not eat or drink anything for 6 hours before your test. Exception: If you are told it is OK to take your usual morning prescription medication, you can take it with a small sip of water.

The Test

- You will be seated for this test.
- A numbing gel such as lidocaine is applied in your nose to make the passage of the tube more comfortable.
- A small, narrow (4 millimeter), flexible tube called a high resolution manometry catheter is passed down your nose into the esophagus and then into the stomach. During this time, you will be able to breathe, talk and swallow with ease. It may be uncomfortable but most patients quickly adjust to the catheter. Vomiting or coughing may occur during catheter placement, but rarely.
- The end of the tube coming out of your nose is connected to a machine. The machine records pressure on the catheter. There are sensors at various locations along the catheter and they measure the strength of the lower esophageal sphincter (ring of muscle between esophagus and stomach) and the muscles in the esophagus.



- During the test, we will ask you to swallow some water so we can evaluate how well the sphincter and muscles are working. The sensors also measure the strength and coordination of the contractions in the esophagus as you swallow.
- The test lasts 10-20 minutes. When it is over, the catheter is removed.

After the Test

You may have a mild sore throat. Using lozenges or gargling with salt water may help. After gargling, spit, do not swallow the salt water. You can return to your usual diet, activities, and medications. Possible side effects may include discomfort, nasal pain, runny nose, throat discomfort, coughing, dizziness, irregular heartbeat, minor bleeding, or rarely, perforation.

Questions or Concerns

- The Thoracic Center is open Monday to Friday from 8:00 a.m. to 5:00 p.m.
- **Thoracic patients:** Please call **716-845-3167** when the Center is open. After hours, please call **716-845-2300** and our Call Center staff will direct your call.