What is esophageal manometry?

Esophageal manometry is a test used to measure the function of the esophagus. The lower esophageal sphincter (LES) is a muscle that prevents reflux of gastric acid into the esophagus (see diagram). This test will tell your doctor if your esophagus is able to move food to your stomach normally. There are two parts to the test. First, the LES is examined and second, the main body of the esophagus is studied to determine if the food moves normally to your stomach.

Why do people need this test?

The manometry test is commonly recommended to people who have difficulty with:

- Swallowing
- Pain when swallowing
- Heartburn
- Chest pain
- Chronic cough or hoarseness

How does swallowing happen?

To know why you might be experiencing a problem with your digestive system, it helps to understand the digestive processes.

When you swallow, food moves down your esophagus and into your stomach with the assistance of a wave-like motion called peristalsis. Disruptions in this wave-like motion may cause chest pain or problems with swallowing.

In addition, the muscle connecting the esophagus with the stomach, called the esophageal sphincter, prevents food and acid from backing up out of the stomach into the esophagus. If this muscle does not work properly, food and stomach acids can enter the esophagus and cause a condition called Gastro-esophageal Reflux Disease (GERD).

The day of your test

- You will not be sedated. However, a topical anesthetic (pain-relieving medication) will be applied to your nose to make the passage of the tube more comfortable.
- A flexible tube is passed through your nose, down your esophagus and into your stomach. The tube does not interfere with your breathing. You will be seated while the tube is inserted.
- You may feel some discomfort as the tube is being placed, but it takes only about a minute to place the tube. Most patients quickly adjust to the tube’s presence. Vomiting and coughing are possible when the tube is being placed, but are rare.
- After the tube is inserted, you will be asked to lie on your back. The end of the tube exiting your nose is connected to a machine that records the pressure exerted on the tube. The tube is then slowly withdrawn. Sensors at various locations on the tubing sense the strength of the lower esophageal sphincter. During the test, you will be asked to swallow a small amount of salt water and also a jello-like substance to evaluate how well the sphincter is working. As the tube is pulled into the esophagus, the sensors measure the strength and coordination of the contractions in the esophagus as you swallow.
- The test lasts 30 to 45 minutes. When the test is over, the tube is removed. The surgeon will interpret the recordings that were made during the test.
Manometry will indicate not only how well the esophagus is able to move food down the esophagus but also how well the esophageal sphincter is working to prevent reflux.

**Medications**

Please follow the instructions below (unless told otherwise by your doctor):

- **Three days prior:** Discontinue
  - Carafate
  - Reglan

- **Midnight the night before:**
  Discontinue:
  - All Antacids (Maalox, Tums, Mylanta, Gaviscon, Rolaids)

- **Twelve hours** before the test, do not take sedatives: such as Valium (diazepam), Xanax (alprazolam)

If you are only having the Esophageal Manometry test done and not the Impedance - pH, you may stay on your medications, unless told otherwise by your physician or surgeon.

**Eating and drinking**

- Do not eat or drink anything 6 hours before the test.

- After the test is over you may eat and drink as you normally would.

- Do not wear perfume or cologne.

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**After the examination**

You may feel a little soreness in your throat for up to a day after the test. This is temporary. Lozenges may help the soreness. You can also eat and drink immediately after the test. You should then make a follow up appointment with your doctor or the surgeon ordering the test.