

## **Esophageal Manometry Test (Motility study)**

Esophageal manometry is a swallowing test that can help determine if your esophagus is able to move food to your stomach normally. Test details and preparation are discussed.

### **OVERVIEW**

What is esophageal manometry?

Esophageal manometry is a test that is used to measure the function of the lower esophageal sphincter (the valve that prevents reflux, or backward flow, of gastric acid into the esophagus) and the muscles of the esophagus. This test will tell your doctor if your esophagus is able to move food to your stomach normally.

The manometry test is commonly given to people who have:

Difficulty swallowing

Pain when swallowing

Heartburn and/or regurgitation (bringing food back up after swallowing it)

Chest pain

### **The swallowing and digestive processes**

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

In addition, the lower esophageal sphincter (the muscular valve connecting the esophagus with the stomach) prevents food and acid from backing up out of the stomach into the esophagus. If this valve opens when it is not supposed to, food, acid and stomach enzymes can enter the esophagus and cause a condition called gastroesophageal reflux disease (GERD). If the lower esophageal sphincter is not opening during a swallow, it may be a sign of a condition called achalasia, which causes difficulty swallowing.

### **TEST DETAILS**

What happens before, during, and after esophageal manometry?

Special conditions

Tell the physician if you have a lung or heart condition, have any other diseases, or have allergies to any medications.

## Medications

Please follow the instructions below (unless told otherwise by the physician ordering the test):

One day (24 hours) before the test, stop taking calcium channel blockers such as verapamil (Calan®, Isoptin®), nifedipine (Adalat®, Procardia®), and diltiazem (Cardizem®). Also stop taking nitrate and nitroglycerin products such as isosorbide (Isordil®, Nitrobid®, Nitrodisc®, Nitrodur®, Nitrogard®, Transderm-Nitro®, and Tridil®).

Twelve hours before the test, do not take sedatives such as diazepam (Valium®) or alprazolam (Xanax®).

If possible, try not to take opioid pain medications for 48 hours before esophageal manometry. Please discuss this with the physician who ordered the manometry study.

Do not stop taking any other medication without first talking with the physician who ordered the test.

## Day of the test

### Eating and drinking

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

## **During the test**

You are not sedated. However, a topical anesthetic (pain-relieving medication) may be applied to your nose to make the passage of the tube more comfortable.

A high-resolution manometry catheter (a small, flexible tube about 4 mm in diameter) is passed through your nose, down your esophagus and into your stomach. The tube does not interfere with your breathing. You may be seated while the tube is inserted.

It takes about a minute to place the tube. You may feel some discomfort, but 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 may be asked to lie on your left side. The end of the tube exiting your nose is connected to a machine that records the pressure that is placed on the tube. Sensors at various locations on the tubing sense the strength of the lower esophageal sphincter and muscles of the esophagus.

During the test, you will be asked to swallow a small amount of water to evaluate how well the sphincter and muscles are working. The sensors also measure the strength and

coordination of the contractions (spasms) in the esophagus as you swallow.

The test lasts 10 to 15 minutes. When the test is over, the tube is removed. The gastroenterologist (physician) will interpret the recordings that were made during the test.

After the test

The physician who ordered the test will receive the results. Please discuss with this physician how results will be given to you.

You may resume your normal diet and activities and any medications that were withheld for this test.

You may feel a temporary soreness in your throat. Lozenges or gargling with salt water may help.

If you think you may be having any unusual symptoms or side effects, call the physician who ordered the manometry test.

**Locations performing Manometric studies:**

1. **ECMC - call 716-898-3073 to schedule your appointment**
2. **Michael Moore - call 716-825-3601 to schedule an appointment**