Esophageal \ Manometry
Measuring Muscle Pressure in the Upper Digestive Tract
What Is Esophageal Manometry?

Esophageal manometry is a test to measure the strength and function of the esophagus (the “food pipe”). A thin tube or probe that can sense pressure is placed down the esophagus. Results can help identify causes of heartburn, swallowing problems, or chest pain. The test can also help plan surgery and determine the success of previous surgery.

Preparing for the Test

Be sure to talk to your doctor about any medications you take. Some medications can affect the test results. Also ask any questions you have about the risks of the test. These include irritation to the nose and throat. Be sure not to smoke, eat, or drink for up to 12 hours before the test.

Up to 12 HOURS
The Esophagus

The esophagus is a muscular tube that moves food from the mouth to the stomach. The esophagus has valves at the top (upper esophageal sphincter or UES) and bottom (lower esophageal sphincter or LES). These valves control the flow of food. The stomach is below the LES.

When you swallow, food starts to move down the esophagus toward the stomach.

In a normal swallow, muscles tighten in sequence along the wall of the esophagus. This sends food down smoothly.

Problems with swallowing occur when the muscles don’t tighten properly. Sometimes the muscles stay tightened (spasm) or tighten out of sequence.
During the Test

Manometry takes about an hour. It is performed by a doctor, nurse, or technician. Usually the test is done at the doctor’s office or in a special lab at a hospital.

Placing the Tube

Usually you lie down during the test. Your nose and throat are numbed. Then a soft, thin tube is placed through the nose and down the esophagus. At first you may notice a gagging feeling.
Measuring Muscle Pressure

You will be asked to swallow several times. Sometimes you may swallow liquid. You may also be asked to take deep breaths. Holes along the tube measure the pressure while you swallow. Measurements are printed out as tracings, much like a heart test tracing. After the test, a catheter may be left in the esophagus for up to 24 hours to measure acid (pH) levels.

A normal swallow: Peaks on the tracing show muscles in the esophagus tightening in sequence.

A spasm: Peaks on the tracing show muscles in the esophagus tightening at the same time.
After Esophageal Manometry

You’ll probably discuss the results of the test at another appointment. This is because time is needed to review the tracings. You may have a mild sore throat for a short time. But you can return right away to eating and your normal activities.