Esophageal pH Monitoring

In order to determine the correct placement of the esophageal pH probe, it may be necessary to perform a short test called upper endoscopy (EGD) or esophageal manometry.

The nose is numbed for a short time. A thin wire-sized plastic catheter is passed into one nostril, down the back of the throat, and into the esophagus as the patient swallows. The tip of the catheter contains a sensor that senses acid. The sensor is positioned in the esophagus so that it is just above the lower esophageal sphincter, a specialized area of esophageal muscle that lies at the junction of the esophagus and stomach and prevents acid from refluxing back up into the esophagus. The probe has pH sensors to measure pH in the stomach and to measure pH in the upper esophagus. Placing the probe takes approximately 10 minutes. No sedation is necessary. The other end of the small catheter comes out the nose and is connected to a small battery-powered recorder that is worn on a strap over the shoulder. The patient is sent home with the catheter and recorder in place.

During the 24 hours that the catheter is in place, the patient goes about his/her usual activities, for example, eating, sleeping, and working. Meals, periods of sleep, and symptoms are recorded by the patient in a diary and by pushing buttons on the recorder. The diary helps the doctor to interpret the results. The patient returns the next morning for removal of the catheter. After the catheter is removed, the recorder is attached to a computer so that the data recorded can be downloaded into the computer where it is then analyzed.

There may be mild discomfort in the back of the throat while the catheter is in place. The vast majority of patients have no difficulty eating, sleeping, or going about their daily activities.

How should I prepare for catheter-based esophageal pH monitoring?

An empty stomach allows for the best and safest examination, so do not eat or drink anything for 6 hours before the test. Your doctor may ask that you temporarily stop taking your acid reducing medication.

What can I expect after the test?

After the test, you may experience mild sore throat, stuffy nose, or a minor nosebleed; all typically improve within hours. Unless your physician has given you other instructions, you may resume normal meals, activities, and any interrupted medications.

What are the possible risks associated with catheter-based esophageal pH monitoring?

As with any medical procedure, there are certain risks. While serious side effects of this procedure are extremely rare, it is possible that you could experience irregular heartbeats, aspiration (when stomach contents flow back into the esophagus and are breathed into the lung), or perforation (a hole in the esophagus). During insertion, the tube may be misdirected into the windpipe before being repositioned. Precautions are taken to prevent such risks, and your physician believes the risks are outweighed by the benefits of this test.

What if the tube cannot be passed?

In some situations, correct placement of the tube may require passage through the mouth or passing the tube using endoscopy (a procedure that uses a thin, flexible lighted tube). Your physician will determine the best approach.