



24 Hour PH Impedance Testing

This test monitors your pH level (acidity level) via a trans-nasal catheter.

Common reason for a 24-hour pH impedance for detection of gastroesophageal reflux independent of pH (ie, both acid and non-acid. It can measure how often acid goes from esophagus into stomach and if acid is related to symptoms. The esophagus has a muscle at the entry-point to the stomach and if the valve is not working properly, you may experience heartburn, pain or coughing.

For the impedance test, the thin catheter with a tip containing acid or other pH sensor is inserted through your nose and into the esophagus. The catheter sensor will be positioned right above the lower esophageal sphincter. Then, you will go about the next 24 hours as normal.

PRE-PROCEDURE INSTRUCTIONS FOR 24 HOUR PH IMPEDENCE MONITORING

Welcome to the Tufts Medical Center GI Motility Lab. We would like to make your stay as pleasant and safe as possible. **Please read all instructions carefully** before your procedure as they are critical to your health and safety.

WHAT TO EXPECT

Your physician has ordered this test, which is used to evaluate for gastroesophageal reflux disease and to determine the effectiveness of medications that prevent acid reflux. This study measures the amount of acid refluxing or “backing up” from the stomach into the esophagus (food pipe). Esophageal pH monitoring is used in several situations to assess for gastroesophageal reflux disease (GERD). The first is to evaluate typical symptoms of GERD such as heartburn and regurgitation that do not respond to treatment with medications. The second is when there are atypical symptoms of GERD such as chest pain, coughing, wheezing, hoarseness, or sore throat. In this situation, it is not clear if the symptoms are due to gastroesophageal reflux. Occasionally, this study can be used to monitor the effectiveness of medications used to treat GERD. This study is often used as part of a preoperative evaluation before surgery.

The nose is numbed for a short time. A thin wire-sized catheter is placed 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. Sometimes the probe has other pH sensors to measure pH in the stomach and in the upper esophagus and nonacid reflux using special sensors (impedance sensors). These extra sensors do not change the size of the small catheter. 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 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 are very few side effects of esophageal pH monitoring. 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. *Most patients, however, prefer not to go to work because they feel self-conscious about the catheter protruding from their nose.*

GETTING HERE

We are located on the third floor in the Proger building.

Plan to spend about an hour in our unit for your procedure. We will do everything possible to avoid a delay, but emergencies may interrupt the schedule.

WHAT TO BRING

- Be sure you have an insurance referral, if required by your insurance company.
- Be prepared to pay any co-payment on the day of your procedure.
- Please bring the following items with you:
 - o Your completed medical questionnaire and list of medication(s).
 - o Your hospital card.