

## **REFLUX TESTING INFORMATION and INSTRUCTIONS**

The Voice Institute of New York (VINY) has an array of cutting-edge diagnostic technologies that provide more specific, functional, and detailed information than traditional reflux-testing. With the exception of the 24-hour pH monitoring, most of the tests take less than a half-hour to perform; however, a comprehensive evaluation requires two 1-2 hour long visits on two consecutive days, and that includes the pH monitoring, which is an overnight test.

### **Background**

The term *reflux* literally means *backflow* from the Latin *re-* back and *fluere* to flow. *Gastroesophageal reflux disease* (GERD) refers to the backflow of gastric (stomach) contents into the esophagus (the swallowing tube that connects the throat and stomach); and the medical term for the backflow of gastric contents into the throat is *laryngopharyngeal reflux* (LPR).

LPR is very common in people with voice disorders and swallowing problems, and it is quite often “silent,” that is, it can occur without heartburn (reflux-related chest pain). Actually, only about one-third of people with LPR ever have heartburn. The common symptoms of LPR are hoarseness, chronic cough, difficulty swallowing, sore throat, a sensation of a lump in the throat (aka “globus”), too much throat mucus, and “post-nasal drip.”

### **Reflux and Swallowing Testing at VINY**

Reflux testing and swallowing testing evaluates different functions in different ways; these include: (1) High-definition manometry, (2) ambulatory 24-hour double-probe (inclu. pharyngeal) pH monitoring, (3) unседated transnasal esophagoscopy (TNE), and (4) flexible endoscopic evaluation of swallowing (FEES). More detailed information and publications about these tests can be found on the VINY website, [www.voiceinstituteny.com](http://www.voiceinstituteny.com).

**Transnasal Esophagoscopy (TNE).** We are able to evaluate the esophagus in the office without any intravenous sedation or anesthesia. An endoscope similar to the small flexible instrument that is used to examine the larynx can be advanced into the esophagus just behind the voice box, and provide an excellent and quick screening examination of the esophagus. TNE replaces more complex, time-consuming, and unpleasant procedures. Immediately after TNE, people can leave the office, go home or return to work, drive an automobile, or eat a meal.

**High-Definition Manometry.** This state-of-the-art technology is used for measuring the muscle function and coordination of the swallowing mechanism. The Sierra Scientific manometry catheter we employ has 432 pressure sensors (located at 36 locations 1cm apart). The catheter is inserted through the nose after numbing it, and it is then positioned to measure dynamic pressures in the throat, esophagus, and stomach. In addition to testing esophageal motility, manometry is used to locate and evaluate the upper and lower esophageal sphincters. This information is essential for accurate pH monitoring. Normally, the sphincters prevent reflux disease by acting as one-way valves.

**pH Monitoring.** Ambulatory, 24-hour, double-probe (simultaneous pharyngeal and esophageal) pH monitoring is the best way to test the esophagus for GERD and throat for LPR. This investigation is performed overnight. A small flexible tube is placed in the nose and enters the throat and esophagus where (using a portable minicomputer) it measures acidity backflow in both the esophageal and the laryngeal areas. We have recently developed new software that analyzes the pH testing results across the range of acidity (from strong to weak acid).

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## REFLUX TESTING INFORMATION and INSTRUCTIONS (Cont.)

**Flexible Endoscopic Evaluation of Swallowing (FEES).** Less commonly performed, this is a specialized examination of swallowing function, also performed using a flexible endoscopic instrument inserted through the nose. FEES evaluates the ability of the pharynx (throat) to propel swallowed material in to the esophagus. It also effectively evaluates nerve and muscle function and coordination of the larynx and tongue.

### Instructions for TNE and FEES

If your testing is scheduled in the morning, please do not eat or drink anything after midnight the night before. If your testing is scheduled for the afternoon, you may have liquids (coffee, tea, juice) and a light breakfast (yogurt, fruit, meal) before 10 a.m., but nothing by mouth after that. Also, please wear loose fitting clothing and no belt.

### Instructions for Manometry and pH Monitoring

(1) If your testing is scheduled in the morning, please do not eat or drink anything after midnight the night before. If your testing is scheduled for the afternoon, you may have liquids and a light breakfast before 10 a.m.

(2A) If you are having pH monitoring (or even possibly might have it) as part of your evaluation, **please stop any and all antireflux medication for seven (7) days prior to your visit.** If you are taking any of the medications listed; they should be discontinued. It is possible that your symptoms may get worse when you stop your reflux medicine; however remember, the purpose of the pH testing is to evaluate the pattern and severity of your reflux.

Prilosec	omeprazole
Protonix	pantaprazole
Prevacid	lansoprazole
Aciphex	rabeprazole
Nexium	esomeprazole
Zantac	ranitidine
Pepcid	famotidine
Zegerid	omeprazole/sodium bicarbonate
Tagamet	cimetidine
Lioresal. Kemstro	baclofen
Reglan	metoclopramide
And antacids, e.g., Gaviscon, Mylanta, Maalox	

If you do take medication, please bring your medicine or an accurate record of your medicine to your appointment.

(2B) **If this box is checked stay on your reflux medication.** Do not discontinue the medicine. In some cases, your doctor may want to you to have your pH monitoring while taking your medicine, the reason for this is to evaluate the effectiveness of treatment

(3) For pH monitoring you will be at VINY for an hour or two on two (2) consecutive days – Mon.-Tues., Tues.-Wed., Wed.-Thurs., or Thurs.-Fri. -- therefore, you should plan accordingly. (There is no Fri.-Sat. reflux testing.)

(4) Shower and wash your hair before pH monitoring, because you cannot shower during the 24-hour pH test

(5) Finally, wear a loose V-neck shirt or blouse that buttons in the front.

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