

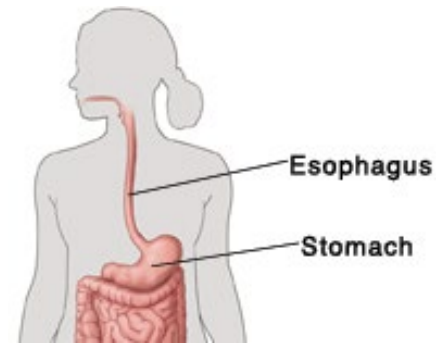
Silent Reflux: Laryngopharyngeal Reflux Disease

Signs, symptoms, and treatments

This handout explains the signs, symptoms, and treatments for silent reflux, also called laryngopharyngeal reflux (LPR).

What is reflux?

Reflux occurs when stomach juice flows up into the *esophagus* (the tube that carries food from your mouth to your stomach) and throat. This juice contains acid and enzymes to break down food. The stomach has a special lining that resists the acid and enzymes, but the esophagus and throat do not. Stomach juice can damage the esophagus and throat when reflux occurs.



In reflux, stomach juice flows up into the esophagus and throat.

Laryngopharyngeal reflux (LPR) occurs when stomach juice flows into the voice box or throat. This is different than gastroesophageal reflux disease (GERD), when stomach juice flows only into the esophagus.

Signs and Symptoms of LPR

About 60% of people (60 out of 100) who have LPR do not have heartburn, indigestion, or *regurgitation* (partly-digested food from your stomach returning to your mouth). This is why we call it *silent* reflux. Without symptoms, LPR can be hard to diagnose.

But, the throat and voice box (*larynx*) are very sensitive to stomach acid. Even small amounts of reflux can cause injury and irritation to these body tissues. It can also affect your lungs and breathing.

Symptoms of LPR are:

- Chronic hoarseness or cough
- Throat-clearing
- A feeling of a lump in your throat
- Throat pain, trouble swallowing, choking episodes
- Nose and throat drainage

Hoarseness may come and go. It may be worse during the day. You may have a lot of drainage from your nose and throat, or you may have too much mucus or phlegm. You may also suddenly feel like you cannot breathe or wake up gasping at night. You may also have heartburn.

If you have any of these symptoms, talk with your doctor, especially if you smoke. You should have a throat exam to look at your voice box. If the area looks swollen or red, you may have silent reflux.

Tests for Silent Reflux

Your doctor may advise some tests to confirm that you have silent reflux. These tests will make sure that you do not have any damage from the reflux. They will also help your doctor choose the best type of treatment for you.

pH/Impedance Monitoring

This test takes 24 hours to complete. A special probe measures the reflux of stomach juice in your throat. The probe is not painful, but it can be annoying.

Your provider will place a small, soft, flexible tube into your esophagus through your nose. This tube will be connected to a small computer box that collects data. You will wear this box around your waist for 24 hours.

Manometry

For this test, a small tube is placed through your nose and into your esophagus. You will then be asked to swallow water. The test will show the strength and timing of your swallowing. This test takes 30 minutes and usually is done before pH/impedance testing.

Esophagoscopy

In an *esophagoscopy*, a scope is placed in your esophagus to check for damage to the lining.

- If your esophagoscopy is done by your *laryngologist*, it will be done in the doctor's office. You will sit in a chair and the scope will be placed in your nose. You will not need sedation.
- If your esophagoscopy is done by a different doctor, you will be sedated and lying down. The scope will go through your mouth.

Barium Swallow

In a barium swallow, a technologist will take X-ray images of your esophagus as you swallow a chalky liquid that contains barium. This test will check your swallowing. It will also show if your throat has any narrowing or is abnormal in any other way.

Other Consults

Your laryngologist may talk with other doctors about your test results. These doctors may include a *pulmonologist* (a doctor who specializes in lungs), a *gastroenterologist* (a doctor who specializes in the digestive system), or a surgeon who specializes in surgery of the digestive system.

Treatment for Silent Reflux

Your doctor will talk with you about the best treatment for you. Most people with silent reflux need to change what and when they eat. Sometimes medicine is needed, as well. Treatment for LPR may include:

- **Lifestyle changes**, such as changing your diet to reduce reflux.
- **Medicines that lower stomach acid** are also usually needed. Diet and lifestyle changes alone may not control reflux. Some of these are:
 - **Non-prescription antacids:** Maalox, Gelusil, Gaviscon, Mylanta, and Tums. These are taken 4 times a day, 1 tablespoon or 2 tablets, 1 hour after each meal and before bedtime.
 - **Non-prescription h₂ blockers:** Zantac75 , Pepcid AC, Axid AR, and Tagamet HB. These are taken 2 times a day or when you have symptoms.
 - **Prescription h₂ blockers:** Zantac (ranitidine), Pepcid (famotidine), Axid (nizatidine), and Tagamet (cimetidine). These are taken on an empty stomach. They are usually taken either 2 times a day or at bedtime. Take them 30 to 45 minutes before meals, or 3 hours after meals.
 - **Prescription proton pump inhibitors:** Prilosec (omeprazole), Prevacid (lansoprazole), Protonix (pantoprazole), Nexium (esomeprazole), Aciphex (rabeprazole), and Zegerid (omeprazole plus sodium bicarbonate). These are the strongest medicines for reducing stomach acid. They **must** be taken regularly every day, 30 to 45 minutes before your morning and/or evening meal. Your doctor may prescribe them to be taken once or twice a day.
- **Surgery:** If you have severe silent reflux, or if you cannot take reflux medicine, your doctor may advise you to have surgery on your stomach valve. Most people who have this surgery have relief from silent reflux disease for many years.

Length of Treatment

Most people with silent reflux need some form of treatment. Some people need long-term treatment. Some people recover fully for months or years, and then symptoms may return.

Having silent reflux is a like having high blood pressure. With treatment, it does not usually cause a serious problem. But, without treatment, silent reflux can be serious. Some long-term problems are:

- Choking episodes
- Breathing problems such as asthma, bronchitis, or narrowing of the windpipe
- Voice changes
- Damage to your esophagus

Tips for Reducing Reflux

- Take your medicines exactly as prescribed by your doctor.
- Raise the head of your bed 4 to 6 inches. Do not use pillows, as this will place pressure on your stomach area. Using pillows can also cause neck and back pain. Instead, place blocks, bricks, or books under the head of your bed so that the entire bed is at an angle.
- You can also use a full bed wedge. These should extend the length of your bed. You can buy a bed wedge at a foam shop. It uses gravity to keep your stomach contents in your stomach and prevent reflux.
- If you smoke, **stop**.
- Do **not** lie down after eating. Do **not** eat within 3 hours of bedtime.
- Eat a low-fat diet. Limit red meat and butter. Avoid fried foods, chocolate, cheese, and eggs.
- Avoid spicy or acidic foods and drinks.
- Avoid spearmint and peppermint.
- Avoid caffeine, especially coffee, tea, cola, and other soda pop.
- Avoid drinking alcohol.
- Do **not** overeat.
- If you are overweight, lose weight.
- Avoid bending and stooping when you are having an episode of reflux, as this can make it worse. Instead, bend your knees to lower your body. Do **not** bend from the waist.
- Wear clothing that is loose around your waist.
- Avoid straining and lifting heavy objects.
- Wait 90 minutes after eating before you exercise.
- Learn new ways of coping with stress.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

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