GERD Gastroesophageal Reflux Disease

DIAGNOSTICS

What is GERD?

GERD (gastroesophageal reflux disease) is a common condition involving the esophagus, the muscular tube that connects the back of the mouth to the stomach. Many people refer to this disorder as heartburn or indigestion. When the muscular valve at the lower end of the esophagus relaxes, the contents of the stomach backwash, or reflux, into the esophagus. The strong digestive acid in the stomach is very irritating to the lining of the esophagus.

The most common symptom of GERD is pain located anywhere from the upper abdomen to the upper chest/ neck. The pain is usually described as burning, but may be sharp or more like pressure. Severe chest pain that mimics a heart attack may occur. Other symptoms include difficulty swallowing (known as dysphagia), nausea, and regurgitation. GERD can also have symptoms of the upper respiratory tract, such as frequent sore throats.

Who gets GERD and why?

GERD affects both men and women and can occur at any age, but typically begins around age 40. GERD occurs when the normal valve (or sphincter) between the stomach and the esophagus is weakened or from conditions that lead to regurgitation of the stomach's contents into the esophagus. For example, patients with hiatal hernias (where the upper portion of the stomach slides into the chest temporarily), patients who produce excessive acid, and patients who have delayed emptying of the stomach after meals are more likely to experience GERD. Triggers include obesity and excessive consumption of fatty foods, chocolate, peppermints, greasy or spicy foods, tomato products, citrus products, caffeine, and alcohol. Smoking, tight clothing, and eating heavy meals before sleeping can also contribute to the condition.

What are the effects and complications of GERD?

One of the most common problems with GERD is esophagitis that results from the irritation of the area of the esophagus that connects to the stomach. Acid splashing back into the esophagus can result in inflammation or even a narrowing scar (called a stricture) that causes patients to have difficulty swallowing. Other complications include ulceration of the lining of the esophagus, asthma, pneumonia, and ear infection.

Patients with chronic, untreated heartburn can also develop a condition called Barrett's esophagus, which requires close monitoring to avoid developing into esophageal cancer.

How is GERD diagnosed at the lab?

A patient's healthcare provider usually will make a diagnosis based upon the symptoms after reviewing the patient's



GERD occurs when the sphincter (which is like a valve) between the stomach and the esophagus is weakened, and the contents of the stomach flow up into the esophagus.



medical history and conducting a physical exam. The healthcare provider also can perform an endoscopy in order to view the damage caused by reflux, such as redness, erosion, or ulcerations in the bottom part of the esophagus. During the endoscopy procedure, a small tube with a camera is inserted through the mouth and into the esophagus. At that time, a sample (biopsy)

> of the lining may be taken. The biopsy will be sent to the lab, where the tissue is processed into thin sections which are prepared on glass slides and examined under the microscope by a pathologist, a doctor specialized in the diagnosis of disease.

At Inform Diagnostics, all of the pathologists are subspecialists, such as GI pathologists for conditions of the digestive system. The pathologist will determine whether a diagnosis of GERD or other unexpected abnormality can be established or excluded. Difficult and unusual cases are reviewed together by our subspecialist pathologists at a large

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multi-headed microscope to ensure the most accurate and definitive diagnoses. The pathologist creates a pathology report with all the important findings, including critical information to help guide treatment and assess prognosis, which is sent back to the patient's healthcare provider.

Another method of diagnosis is by conducting an esophageal manometry, which uses a flexible tube that is inserted into the nose down to the stomach and is designed to measure the strength of the lower esophageal sphincter. Additionally, a pH monitor test can record how much acid washes back into the esophagus during a 24-hour period. This procedure can be done using a thin catheter placed through the nose and down the esophagus or using a small capsule to measure the pH (or acidity) of the esophageal contents.

How is GERD treated?

The first step is for the patient to avoid eating the foods that cause the most symptoms and that may relax the lower esophageal sphincter. Patients should avoid eating and drinking too close to bedtime, as gravity when lying flat allows food and acid in the stomach to wash up into the esophagus. The dinner meal should be early and light. Digestion also can be aided by elevating the head of the patient's bed. Medications, such as antacids and over-the-counter histamine-2 blockers, are the typical treatment and are designed to help reduce stomach acid. If non-prescription medicine is not working, the healthcare provider may prescribe a medication known as a proton pump inhibitor or a pro-motility medication.

Surgical procedures, such as the Nissen fundoplication, involve taking the stomach and wrapping it around part of the esophagus to help strengthen the valve. Newer, less invasive treatment techniques using endoscopy are being developed, as well.

Learn more!

These resources provide more information about gastroesophageal reflux disease (GERD)

www.aaaai.org/conditions-and-treatments/relatedconditions/gastroesophageal-reflux-disease American Academy of Allergy, Asthma & Immunology

patients.gi.org/topics/acid-reflux American College of Gastroenterology

www.eatright.org/resource/health/wellness/digestivehealth/what-you-need-to-know-about-gerd Academy of Nutrition and Dietetics

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866.588.3280