

# GASTROESOPHAGEAL REFLUX DISEASE (GERD)

## Patient Information Fact Sheet

### What is GERD?

Gastroesophageal reflux disease (GERD) is a condition in which the contents of the stomach are regurgitated back up into the esophagus (the tube leading from the mouth to the stomach) instead of passing down into the small intestine to be digested. Everyone experiences some degree of GERD but it is only considered to be a disease when there are significant symptoms or complications. In most cases, the symptoms of GERD are mild and can be easily treated. GERD is sometimes referred to as “reflux” or “gastric reflux.”

### What are the symptoms of GERD?

The most common symptom of GERD is heartburn. This is a burning sensation in the esophagus caused by acid from the stomach coming back up through the separating valve (the esophageal sphincter). It often occurs after meals or when lying down. Straining, lifting, and bending over can make heartburn worse. Heartburn is common in both pregnancy and obesity because of increased pressure within the abdomen that pushes the contents of the stomach upward. Heartburn in pregnancy may also be the result of hormonal changes, which cause relaxation of the esophageal sphincter. Heartburn can aggravate breathing in some people, particularly those with asthma. Heartburn can cause chest pain similar to that experienced in heart conditions such as angina or in a heart attack. If you experience this type of pain your doctor will check for other signs of heart disease.

Sometimes regurgitation of the stomach contents into the mouth will occur, causing a bitter taste. This may be associated with excessive saliva production. The presence of stomach acid in the mouth may also cause dental disease. Acid reflux may also cause hoarseness or discomfort in the throat. In severe cases of GERD, there may be difficulty or pain on swallowing and ulceration of the esophagus, which can cause bleeding. Around 10% of people with GERD also develop a condition known as Barrett’s esophagus, in which cells of a type usually found in the stomach lining are found in the lining of the esophagus. As this condition is associated with a small risk of developing cancer of the esophagus, regular check-ups are necessary.

### What causes GERD?

The esophageal sphincter is a valve located at the base of the esophagus where it joins the stomach. This muscular valve normally relaxes during swallowing to allow food to pass into the stomach and then closes again. In GERD the sphincter becomes incompetent and fails to close after swallowing allowing some of the stomach contents back up into the esophagus. The reason why this happens is not clear although certain factors are known to aggravate the condition. For example, a very full stomach may cause reflux



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especially when the person lies down. Obesity and pregnancy can also put increased pressure upon the stomach causing reflux. Certain medications can weaken the sphincter muscles. Other causes contributing to GERD include smoking, alcohol, caffeine and eating chocolate or fatty foods. Approximately 80% of people with GERD also have a hiatus hernia (a condition where a weakness of the diaphragm allows part of the stomach to be pushed up into the chest, affecting the valve mechanism). However, many people with a hiatus hernia do not have symptoms of GERD.

### What tests confirm a diagnosis of GERD?

An endoscopy may be used to diagnose GERD. This is a procedure in which a fiber-optic tube is passed down into the esophagus through the mouth. This tube relays images to a video monitor, which enables the doctor to see any ulcers or inflammation that may be present. A biopsy to exclude or confirm Barrett's esophagus can also be taken during an endoscopy (a biopsy involves taking a small sample of cells for examination under a microscope). A barium swallow test may sometimes be used for diagnosis. This involves swallowing a harmless liquid that shows up on x-ray. If reflux causes the liquid to come back up into the esophagus, it will be seen on an x-ray.

### How is GERD treated?

Treatment usually involves a combination of medication, weight reduction if necessary, and changes in diet and lifestyle. Weight loss can greatly reduce symptoms in obese people. Avoidance of certain foods (such as caffeinated and/or carbonated drinks, chocolate, fatty foods, alcohol, and spicy foods) and stopping smoking can help to prevent reflux. Eating meals at least three hours before lying down or going to bed and elevating the head of the bed a few inches may also help to prevent stomach contents flowing back up into the esophagus. There are various types of medication available that can help to control the symptoms of GERD but do not necessarily cure the condition.

Antacids are given to suppress reflux and to relieve symptoms, particularly heartburn. These include ingredients such as aluminum hydroxide, calcium carbonate, magnesium hydroxide, simethicone and sodium bicarbonate. Most of the available preparations contain a combination of these ingredients. They may be in liquid, tablet or capsule form and may be prescribed by a doctor or bought from a pharmacist.

H<sub>2</sub>-receptor antagonists such as **cimetidine** (Tagamet), **famotidine** (Pepcid), **nizatidine** (Axid) or **ranitidine** (Zantac) are taken daily to reduce the production of acid. These are available on prescription and in some cases lower strength preparations are available over the counter in pharmacies.



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Proton pump inhibitors such as **esomeprazole** (Nexium), **lansoprazole** (Prevacid), **omeprazole** (Prilosec), **pantoprazole** (Protonix) and **rabeprazole** (Aciphex) are another type of drug, which may be given regularly to cut down the acid production of the stomach and promote the healing of ulcers. Proton pump inhibitors are only available on prescription, with the exception of omeprazole and lansoprazole.

Antidopaminergic drugs help emptying of the stomach, and include **metoclopramide** (Reglan). These medicines are available on prescription.

### Further information

National Digestive Diseases Information Clearinghouse (NDDIC): <http://digestive.niddk.nih.gov/ddiseases/a-z.asp>

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