CONDITION

Gastroesophageal reflux disease

Gastroesophageal reflux disease is repeated acid reflux that causes troublesome symptoms or damage to the esophagus.

WHAT IT IS
Repeated stomach reflux causing symptoms or esophageal damage

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Heartburn, regurgitation, chest discomfort, trouble swallowing

WHAT CAUSES IT
Weak or frequently relaxing lower esophageal barrier

HOW IT IS DIAGNOSED
Symptom assessment, endoscopy, or ambulatory reflux monitoring

MAIN TREATMENT
Lifestyle measures and acid-suppressing medicines

CAN IT BE CURED?
No - usually controlled rather than permanently cured

IS IT AN EMERGENCY?
Sometimes - severe chest pain or vomiting blood

LONG-TERM OUTLOOK
Usually manageable with ongoing, adjusted treatment

Overview

Gastroesophageal reflux disease, usually called GERD, occurs when stomach contents repeatedly flow backward into the esophagus, the tube carrying food from the mouth to the stomach.

This backward flow, called reflux, may contain acid, digestive enzymes, food, or fluid. Occasional reflux is common. GERD causes regular, troublesome symptoms, affects daily life, or damages the esophageal lining.

The best-known symptom is heartburn, a burning feeling behind the breastbone. Other symptoms include sour fluid rising into the throat, chest discomfort, coughing, and difficulty swallowing. Symptoms may worsen after meals, when bending over, or while lying down.

Ongoing reflux can inflame the esophagus. A small number of people develop narrowing, bleeding, or changes to the esophageal lining. Treatment can control symptoms and reduce these risks.

Symptoms

Common symptoms include:

Reflux reaching the throat may cause hoarseness, throat clearing, cough, or a feeling of a lump in the throat. These symptoms have many possible causes and do not by themselves confirm GERD.

Some people have throat or breathing symptoms without noticeable heartburn, sometimes described as "silent reflux." Testing often identifies another explanation.

Reflux-related chest pain can resemble heart pain. Do not assume that new or severe chest pain is GERD, especially if it occurs with exercise, shortness of breath, sweating, nausea, or pain spreading to the arm, jaw, shoulder, or back.

- Burning discomfort behind the breastbone, known as heartburn
- Sour, bitter, or acidic fluid rising into the throat or mouth
- Upper abdominal or chest discomfort
- Difficulty or discomfort when swallowing
- Symptoms that worsen after eating or lying down

Causes and risk factors

A ring of muscle called the lower esophageal sphincter sits between the esophagus and stomach. It normally opens to let food enter the stomach and then closes. GERD can develop when this barrier relaxes too often or does not close effectively.

A hiatal hernia, in which part of the stomach moves upward through the diaphragm, may contribute. However, many people with a hiatal hernia do not have GERD.

Factors that can make reflux more likely include:

Triggers vary. Fatty meals, alcohol, chocolate, coffee, peppermint, acidic foods, and spicy foods worsen symptoms in some people but are not universal triggers or the underlying cause.

Some medicines can worsen reflux or irritate the esophagus. Do not stop prescribed medicine on your own. Ask a pharmacist or clinician whether it could be contributing and whether an

alternative is appropriate.

- Excess body weight, especially around the abdomen
- Pregnancy
- Large or late meals
- Smoking
- Delayed stomach emptying
- Certain medicines
- Some connective tissue conditions

Diagnosis

GERD is often assessed from the pattern, timing, and frequency of symptoms. A clinician may ask about swallowing problems, weight loss, bleeding, medicines, and symptoms during physical activity.

For typical heartburn and regurgitation without warning signs, a supervised trial of acid-suppressing medicine may be used. Improvement supports GERD as a possible cause but does not prove every symptom is reflux-related.

Upper endoscopy may be recommended for trouble swallowing, bleeding, unexplained weight loss, persistent vomiting, anemia, or symptoms that do not respond as expected. A thin, flexible camera is passed through the mouth to examine the esophagus and stomach. Tissue samples may be taken to check for inflammation or another condition. Endoscopy can show reflux-related injury, but a normal result does not rule out GERD.

Ambulatory reflux monitoring measures reflux for one or more days during normal activities. A sensor is placed in the esophagus on a thin tube through the nose or as a temporary capsule attached during endoscopy. It is the main test for confirming abnormal reflux when the diagnosis is uncertain.

Esophageal manometry measures muscle function. It can identify swallowing disorders and is often used before reflux surgery, but it does not confirm GERD by itself.

Treatment and management

Treatment aims to control symptoms, heal inflammation, and prevent complications. The approach depends on symptom frequency, test findings, other health conditions, and

treatment response.

Helpful measures include:

Extra pillows may bend the body and increase abdominal pressure. A wedge or blocks that raise the upper bed may work better.

Antacids neutralize acid and may briefly relieve occasional symptoms. Alginate products form a floating barrier above stomach contents. They do not heal significant inflammation and may interact with other medicines.

Histamine-2 receptor blockers reduce acid production and may help mild or intermittent symptoms, although their effect can weaken with regular use.

Proton pump inhibitors like omeprazole or lansoprazole , or PPIs, provide stronger acid suppression. They are commonly used for frequent symptoms or esophageal inflammation. Correct timing and regular use affect how well they work. If symptoms continue, a clinician may review how the medicine is taken and whether another condition is responsible.

PPIs are generally well tolerated when appropriately prescribed. Long-term treatment should be reviewed periodically, with the goal of using the least intensive treatment that controls symptoms and inflammation. Do not suddenly stop regular treatment without advice, because temporary rebound acid symptoms can occur.

Procedures may be considered when testing confirms GERD and medicines do not provide acceptable control, cause difficult side effects, or are not preferred long term. Options include fundoplication and selected endoscopic or magnetic sphincter procedures. Risks can include swallowing difficulty, bloating, and the need for further treatment.

Medicines commonly used for this include lansoprazole and pantoprazole . Which one suits you, if any, is a decision for you and your doctor.

- Avoiding meals within about three hours of lying down
- Eating smaller meals if large meals trigger symptoms
- Raising the head of the bed for nighttime symptoms
- Losing weight when excess weight contributes
- Stopping smoking
- Limiting only foods and drinks that consistently trigger symptoms

Complications

Repeated acid exposure can cause esophagitis, or inflammation of the esophageal lining.

Severe inflammation may lead to ulcers or bleeding.

Repeated injury can create scar tissue and a narrowing called a stricture, making food feel stuck. A stricture can often be widened during endoscopy, but ongoing reflux treatment is usually needed.

Some people develop Barrett's esophagus, in which cells lining the lower esophagus change after long-term reflux exposure. Barrett's increases the risk of esophageal cancer, although most people with it do not develop cancer. Periodic endoscopy may be needed depending on tissue findings and other risk factors.

Reflux may also contribute to tooth enamel damage or aggravate some cough, throat, or asthma symptoms. These problems often have other causes, so evaluation should not focus on reflux alone.

Prevention

GERD cannot always be prevented because anatomy, pregnancy, muscle function, and some medical conditions cannot be fully controlled.

You may reduce reflux by avoiding tobacco, maintaining a healthy weight, leaving time between eating and lying down, and limiting reliable triggers. There is no need to remove long lists of foods that do not affect your symptoms.

If a medicine appears to worsen reflux, request a medication review rather than stopping it without guidance.

Living with it and what to expect

GERD often follows a long-term pattern in which symptoms improve and return. Some people need treatment only during flare-ups. Others need regular acid suppression, particularly after severe esophagitis, a stricture, or Barrett's esophagus.

Symptoms can change with weight, pregnancy, meal patterns, medicines, or a hiatal hernia. Treatment should be reviewed if symptoms become more frequent or swallowing changes.

Most people can eat a varied diet and continue usual activities once symptoms are controlled. A brief record of meal timing, symptoms, sleep, and medicines may reveal patterns without leading to unnecessary restrictions.

Routine follow-up is appropriate if you use ongoing medicine or previously had esophageal injury. Follow-up can assess whether treatment remains necessary and effective and whether

surveillance endoscopy applies to you.

Persistent symptoms do not always mean more acid is present. Functional heartburn, esophageal sensitivity, swallowing disorders, heart conditions, and other digestive problems can feel similar. Reassessment is safer than repeatedly increasing treatment without confirming the cause.

When to get medical help

Seek emergency help for:

Arrange prompt medical assessment for difficulty or pain when swallowing, persistent vomiting, unexplained weight loss, anemia, signs of bleeding, or steadily worsening symptoms.

Routine assessment is appropriate if reflux occurs regularly, disrupts sleep, affects eating, requires frequent nonprescription medicine, or continues despite treatment. New symptoms later in life or symptoms that change in character should also be reviewed.

- New, severe, or crushing chest pain, especially with breathlessness, sweating, faintness, or pain spreading to the arm, jaw, shoulder, or back
- Vomiting blood or material that looks like coffee grounds
- Black, tar-like stools with weakness, dizziness, or fainting
- Food stuck in the esophagus with an inability to swallow saliva
- Severe breathing difficulty

Common questions

Is GERD the same as heartburn?

No. Heartburn is a symptom. GERD is repeated reflux that causes troublesome symptoms or esophageal damage. Heartburn can occur without GERD, and GERD can occur without obvious heartburn.

Can GERD go away completely?

Symptoms may improve for long periods, especially when pregnancy, weight, meal timing, or a contributing medicine changes. However, GERD often returns and is usually managed rather than permanently cured. Procedures can provide lasting control for selected people but cannot guarantee symptoms will never return.

What foods should I avoid with GERD?

Avoid foods only when they reliably trigger symptoms. Common reported triggers include large fatty meals, alcohol, coffee, chocolate, peppermint, acidic foods, and spicy foods. A short symptom record may be more useful than a highly restrictive diet.

Are proton pump inhibitors safe to take long term?

PPIs are widely used and generally well tolerated when there is a clear reason for treatment. Like all medicines, they can cause side effects and may not be needed forever. Regular review helps confirm that benefits still outweigh risks and that the treatment level remains appropriate.

Can GERD cause a chronic cough?

Reflux can contribute to cough, particularly alongside heartburn or regurgitation. However, asthma, nasal drainage, smoking, medicines, and lung conditions are also common causes. Cough alone does not confirm GERD.

Does GERD cause cancer?

GERD does not usually lead to cancer. Long-standing reflux can cause Barrett's esophagus in some people, and Barrett's increases esophageal cancer risk. The overall risk remains low, but people with Barrett's may need follow-up endoscopy.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases: Symptoms & Causes of GER & GERD
- National Institute of Diabetes and Digestive and Kidney Diseases: Diagnosis of GER & GERD
- National Institute of Diabetes and Digestive and Kidney Diseases: Treatment for GER & GERD
- American College of Gastroenterology Clinical Guideline: Diagnosis and Management of Gastroesophageal Reflux Disease, 2022
- American Gastroenterological Association Clinical Practice Update: Personalized Approach to GERD, 2022 00079-8/fulltext)
- National Institute for Health and Care Excellence: Gastro-oesophageal reflux disease and dyspepsia in adults, CG184