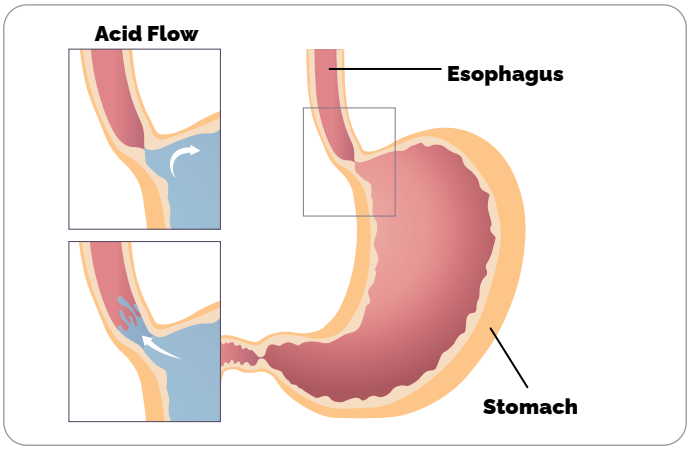
badgut.org
Gastrointestinal Society
Canadian Society of Intestinal Research

GERD (Gastroesophageal Reflux Disease)

Gastroesophageal reflux disease occurs when the upper portion of the digestive tract is not functioning properly, causing stomach contents to flow back into the esophagus (reflux). The esophagus is a muscular tube linking the mouth to the stomach. In normal digestion, a specialized ring of muscle at the bottom of the esophagus called the lower esophageal sphincter (LES) opens to let food pass into the stomach and then quickly closes to prevent backflow into the esophagus. The LES can malfunction, allowing contents from the stomach, including food and digestive juices, such as hydrochloric acid, to push up into the esophagus. In gastroesophageal reflux disease (GERD), this backflow is ongoing. GERD affects 13-29% of Canadians, including both children and adults.

Symptoms

Heartburn is the most common symptom of GERD. Despite the name, heartburn has nothing to do with the heart. It gets the name because the burning pain starts in the chest, behind the breastbone. It can also move up toward the neck and throat. Heartburn often worsens after eating and while lying down. It can last for a few hours at a time. Pain results from the irritating effects of stomach acid on the inner esophagus wall, which does not have the same natural protection from acid that exists in the stomach lining.



Another common symptom is a sensation of food or liquid coming up into the throat or mouth (regurgitation), especially when bending over or lying down. This can leave a bitter or sour taste in the mouth. While many people experience occasional heartburn or regurgitation, these symptoms are frequent in persons with GERD who are not receiving adequate treatment.

Individuals with GERD can also experience less-common symptoms, including persistent sore throat, hoarseness, chronic coughing, difficult or painful swallowing, asthma, unexplained chest pain, bad breath, a feeling of a lump in the throat, and an uncomfortable feeling of fullness after meals.

Too much stomach acid reflux can result in inflammation of the esophagus (esophagitis), which can lead to esophageal bleeding or ulcers. Chronic scarring may narrow the esophagus (stricture) and interfere with a person's ability to swallow, requiring surgery. Some individuals may experience severe damage to the cells lining the lower area of the esophagus, known as Barrett's esophagus. This condition increases the risk of developing esophageal cancer.

In some cases, the acid may travel all the way up the esophagus past the upper esophageal sphincter (UES) and damage the structures in the throat. Known as laryngopharyngeal reflux (LPR), this has now become an important diagnosis for physicians to consider in individuals

with chronic throat clearing, coughing, and a feeling of a lump in the throat. Sometimes, the acid lingering in the throat is drawn into the lungs, irritating the delicate tissues there and causing symptoms that mimic those common in lung diseases. A person could have LPR without symptoms of heartburn because the larynx is much more sensitive to acid injury than is the esophagus.

Acid erosion of tooth enamel, which a dentist will notice, can be a sign of GERD in someone who might not be experiencing typical symptoms.

Speak with your physician if your GERD symptoms change, as this could indicate increased damage to the esophagus that needs treatment.

Diagnosis

In most cases, if your symptoms are primarily heartburn or acid regurgitation, your doctor can accurately diagnose GERD. In most regions across Canada (except the Northwest Territories and Nunavut), pharmacists are also authorized to assess and prescribe treatments for GERD. While some might have limitations with screening, they can offer guidance based on your symptoms and medical history.

Healthcare professionals might order tests to confirm the diagnosis or to determine the degree of esophageal damage. Testing also rules out other possible causes of your symptoms. These tests may include an upper GI series, an upper GI endoscopy (gastroscopy), and 24-hour pH monitoring. Other less frequently performed tests include the Bernstein test and esophageal manometry.

Management

Dietary and Lifestyle Modifications

Although clinical evidence suggests that dietary and lifestyle modifications are usually not sufficient to bring chronic GERD under control, your physician might suggest dietary options that could help reduce your symptoms.

Foods that trigger reflux and its symptoms vary from person to person. By paying close attention to your diet and symptoms, you may be able to identify which foods repeatedly contribute to your reflux. Common trigger foods include alcohol, caffeine, fatty foods, and certain spices. Large meals can be another trigger, so eating smaller, more frequent meals can aid in symptom control.

Individuals living with obesity are at an increased risk of GERD because excess bulk, especially around the abdomen, can put pressure on the digestive tract, negatively affecting its function. Losing weight might help relieve this pressure and improve symptoms.

Avoiding clothes that fit tightly around the waist can help for people of all sizes, as tight clothing can also increase abdominal pressure.

Consuming nicotine (smoking or vaping) and drinking alcohol both affect the function of the lower esophageal sphincter, causing it to relax when it shouldn't, so quitting or reducing use of these substances can improve symptoms.

Gravity helps keep food from refluxing as easily, so avoid lying down, bending over, or going to sleep right after eating.

To reduce nighttime symptoms, elevating the head of the bed about six inches may also help, but make sure to do this by propping up the mattress or bed frame, or using a large wedge pillow. Sleeping on a stack of regular pillows can lead to back or neck pain and compression on the stomach that could increase GERD symptoms.

Medications

There are two main approaches to treating GERD with medications: neutralizing acid and blocking its production.

For neutralizing acid, over-the-counter medications such as ENO® Antacid Effervescing Powder, Tums®, and Pepto-Bismol® may subdue symptoms. There are other options, such as Gaviscon®, that neutralize stomach acid and form a barrier to block acid rising into the esophagus. EsopH® is a product that neutralizes acid and creates a protective barrier in the esophagus to avoid damage and help the mucosa heal. These medications can provide quick, temporary, or partial relief, but they do not prevent heartburn. Consult your physician or pharmacist if you are using antacids for more than three weeks.

Two classes of medication that suppress acid secretion are histamine-2 receptor antagonists (H_2RAs) and proton pump inhibitors (PPIs).

H_2RAs work by blocking the effect of histamine, which stimulates cells in the stomach to produce acid. These include cimetidine, famotidine (Pepcid®), nizatidine (Axid®), and ranitidine. H_2RAs are all available by prescription and some are accessible in a lower dose over-the-counter formulation.

PPIs work by blocking an enzyme necessary for acid secretion. They have the best effect when taken on an empty stomach, a half-hour to one hour before the first meal of the day. PPIs include esomeprazole (Nexium®), lansoprazole (Prevacid®), omeprazole (Losec®), pantoprazole sodium (Pantoloc®), pantoprazole magnesium (Tecta®), and rabeprazole (Pariet®). Prevacid® is also available as a delayed-release tablet (Prevacid® FasTab). Dual delayed release PPI capsules, in the form of dexlansoprazole (Dexilant®), deliver the medication at two intervals. PPIs are the most effective therapy for relieving symptoms and improving quality of life, as well as healing and

preventing damage to the esophagus, in individuals with GERD. In Canada, PPIs are available only by prescription. Longer-term and multiple daily dose PPI therapy may be associated with an increased risk for osteoporosis-related fractures of the hip, wrist, or spine, so your physician might recommend more frequent bone scans.

Treatments that reduce reflux by increasing LES pressure and downward esophageal contractions are metoclopramide and domperidone maleate. A plant-based prokinetic agent, Iberogast®, helps regulate digestive motility and improve GERD symptoms.

All the medications discussed above have specific treatment regimens, which you must follow closely for maximum effect. They also come with various side effects, so if one product does not work for you, it is important to speak with your physician or pharmacist and see if you can try another medication. Usually, a combination of these measures can successfully control the symptoms of acid reflux.

Other medications and/or supplements may aggravate GERD. Be sure to ask your pharmacist or physician if any products you are currently taking could be affecting your symptoms.

Outlook

GERD is a chronic condition that can range from mild to severe. Individuals can successfully manage most cases of GERD with lifestyle and dietary changes along with the right medication. However, there are serious complications to be aware of, so it is important to report any new symptoms to your healthcare team and follow your management plan.

Watch and share our GERD video, which is helpful for all ages, at:
www.badgut.org/gerd-video

About the Gastrointestinal Society

The GI (Gastrointestinal) Society is a registered Canadian charity committed to improving the lives of people with gastrointestinal and liver conditions, supporting research, advocating for appropriate patient access to healthcare, and promoting gastrointestinal and liver health.

Want to learn more on this subject? The *Inside Tract*®, the GI Society's quarterly newsletter, provides the latest on digestive and liver research, disease and disorder treatments (e.g., medications, nutrition), and a whole lot more. If you have any kind of digestive problem, then you will want this timely, informative publication. ***Subscribe today!***

This pamphlet was produced in partnership with the Canadian Society of Intestinal Research under the guidance of affiliated healthcare professionals. This document is not intended to replace the knowledge, diagnosis, or care of your physician.

Subscription/Donation Form

Purchase Information

☐ I enclose a donation of $_____ *(Eligible for a Canadian tax receipt)*

☐ I enclose a $20 annual subscription fee

Total $_____

_____

Name (Mr./Mrs./Ms./Dr./Other _____Please circle one)

_____

Company Name (Optional)

_____

Street Address

_____

City, Province, Postal Code

_____

Phone Email

☐ Patient ☐ Friend/Family Member ☐ Professional

_____

Diagnosis/Area of Interest (This optional information helps us to determine which topics might be of interest to you and is kept strictly confidential. We never sell our lists.)

_____

Would you like more information? Please list your topics.

Payment

Credit Card

Available on our secure website at www.badgut.org/donate.

Cheque

Payable to "GI Society". Mail along with your completed form to:

Gastrointestinal Society
231-3665 Kingsway
Vancouver, BC V5R 5W2

Phone: 604-873-4876
Toll-free: 1-866-600-4875
Fax: 1-855-875-4429
Email: info@badgut.org
Website: www.badgut.org

badgut.org
Gastrointestinal Society
Canadian Society of Intestinal Research

Charitable Registration Number: 817065352RR0001