CONDITION

Gastroenteritis

Gastroenteritis is short-term inflammation of the stomach and intestines that usually causes diarrhoea and vomiting.

WHAT IT IS
Short-term inflammation of the stomach and intestines

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Watery diarrhoea, vomiting, nausea, abdominal cramps

WHAT CAUSES IT
Usually viral, bacterial, or parasitic infection

HOW IT IS DIAGNOSED
Symptoms and examination; stool testing when needed

MAIN TREATMENT
Fluid replacement, continued nutrition, and symptom relief

CAN IT BE CURED?
Yes - most cases resolve completely

IS IT AN EMERGENCY?
Sometimes - severe dehydration or shock signs

LONG-TERM OUTLOOK
Most people recover fully within days

Overview

Gastroenteritis is inflammation of the stomach and intestines. It usually causes sudden watery diarrhoea, nausea, vomiting, and abdominal cramps. Most cases are caused by an infection.

People sometimes call viral gastroenteritis "stomach flu." It is not influenza, which mainly affects the airways and lungs.

Most people recover without specific treatment. The main concern is dehydration, which means losing more water and salts than you replace. Babies, young children, older adults, and people with certain health conditions can become dehydrated more quickly.

Some infections spread easily between people. Others come from contaminated food or water. Careful handwashing and food hygiene can reduce this spread.

Symptoms

Symptoms may begin within hours or several days after exposure, depending on the cause. Common symptoms include:

Blood or mucus in the stool is less typical of uncomplicated viral gastroenteritis. It can occur with some bacterial or inflammatory conditions and should be medically assessed.

Dehydration may cause thirst, a dry mouth, darker urine, or passing urine less often. You may also feel weak, dizzy, or light-headed when standing.

In babies and young children, signs can include fewer wet nappies, no tears when crying, a dry mouth, unusual sleepiness, or a sunken soft spot on the head. A child who is alert and drinking is generally less concerning than one who is difficult to wake or unable to keep fluids down.

Symptoms lasting longer than expected may have another cause. Diarrhoea can also result from medicines, food intolerance, inflammatory bowel conditions, or other digestive problems.

- Loose or watery diarrhoea
- Nausea or vomiting
- Abdominal cramps
- A mild fever, headache, or aching muscles
- Reduced appetite and tiredness

Causes and risk factors

Viruses are a common cause. Norovirus can affect people of any age and often causes outbreaks in households, schools, hospitals, care homes, and shared accommodation. Rotavirus mainly affects young children, although vaccination has reduced severe illness in countries with routine vaccination.

Bacterial causes include Campylobacter , Salmonella , Shigella , and certain strains of Escherichia coli or E. coli . These infections may come from undercooked food, unpasteurised products, contaminated water, animals, or another person.

Parasites such as Giardia and Cryptosporidium are less common causes. They may be linked to contaminated water, childcare settings, travel, or recreational water.

Your chance of being exposed may be higher with:

The risk of a more serious illness is higher in very young children, frail older adults, pregnant people, and people with a weakened immune system. Kidney disease and other long-term

conditions may also make fluid loss harder to manage.

- Close contact with someone who has vomiting or diarrhoea
- Poor access to safe water or sanitation
- Improper food storage, preparation, or cooking
- Recent travel to a place with different food or water risks
- Swimming in or drinking contaminated water
- Contact with infected animals or their surroundings

Diagnosis

Gastroenteritis is often diagnosed from the pattern and duration of symptoms, recent food or travel history, and a physical examination. A clinician may check your temperature, pulse, blood pressure, abdomen, and signs of dehydration.

Testing is not always needed when symptoms are mild and improving. A stool sample may be tested if diarrhoea is bloody, severe, prolonged, linked to an outbreak, or associated with recent travel. Testing may also be appropriate if you have a weakened immune system.

Stool tests can look for genetic material from germs, grow bacteria in a laboratory, or identify parasites. If you are significantly dehydrated or unwell, blood tests may be used to check kidney function and levels of salts such as sodium and potassium.

Other conditions can resemble gastroenteritis. Severe or localised abdominal pain, for example, may require assessment for appendicitis or another abdominal condition.

Treatment and management

Replacing lost fluid is the main treatment. Take frequent small sips if drinking a larger amount makes you feel sick. An oral rehydration solution contains water, sugar, and salts in amounts designed to improve absorption. It can be especially helpful for children, older adults, or anyone with frequent diarrhoea or vomiting.

Breastfeeding should usually continue. Babies and young children should not rely only on plain water to replace substantial losses because they also need salts and energy. A pharmacist or clinician can advise on an appropriate rehydration product.

Eat when you feel able. Small amounts of familiar food are often easier to manage. Restrictive diets are generally unnecessary. Very sugary drinks can sometimes make diarrhoea worse.

Antibiotics like amoxicillin or doxycycline do not treat viral gastroenteritis and are not routinely used for all bacterial diarrhoea. They may help with selected bacterial or parasitic infections. In some infections, including certain toxin-producing E. coli infections, antibiotics may be unhelpful or harmful. Treatment is therefore based on the likely or confirmed cause.

Medicines that slow diarrhoea may help some adults with uncomplicated watery diarrhoea. They may be unsafe when there is blood in the stool, a high fever, or suspected invasive infection. They should not be given to a child unless a qualified healthcare professional recommends them.

Medication for nausea may sometimes be used after clinical assessment. Severe dehydration may require fluids through a vein in hospital.

Complications

Dehydration is the most common complication. Severe fluid loss can lower blood pressure, disturb body salts, and reduce blood flow to the kidneys. Prompt fluid replacement usually prevents these problems.

Some bacterial infections can spread beyond the intestines, although this is not usual. People with weakened immune systems have a higher risk.

Shiga toxin-producing E. coli can occasionally lead to haemolytic uraemic syndrome. This condition damages red blood cells and the kidneys. Warning signs after bloody diarrhoea can include very little urine, unusual bruising, marked paleness, or severe tiredness.

Some people temporarily have trouble digesting lactose, the natural sugar in milk, after gastroenteritis. This can cause bloating or loose stools and usually improves as the intestine recovers.

A small number of people develop longer-lasting bowel sensitivity, sometimes called post-infectious irritable bowel syndrome. Certain infections can also trigger joint inflammation known as reactive arthritis.

Prevention

Not every case can be prevented, but infection control and safe food practices reduce the risk.

Wash your hands thoroughly with soap and water after using the toilet or changing a nappy, and before preparing or eating food. Alcohol hand sanitiser is not a complete substitute during a norovirus outbreak because it does not work as well against norovirus.

Clean contaminated surfaces promptly. Wear gloves if available, remove visible vomit or stool carefully, and use a disinfectant suitable for the suspected germ. Wash soiled clothing and bedding separately at the warmest suitable temperature.

Avoid preparing food for other people while you are ill. Follow local advice about returning to work, school, childcare, or food handling; many public health services advise waiting at least 48 hours after vomiting and diarrhoea have stopped.

Cook food thoroughly, avoid cross-contamination between raw and ready-to-eat foods, refrigerate perishable food promptly, and use safe drinking water. Take extra care with food and water during travel.

Rotavirus vaccination can prevent many severe rotavirus infections in babies. It is given according to the routine childhood vaccination programme where you live. There is no routine vaccine against norovirus.

Living with it and what to expect

Vomiting often settles before diarrhoea. Many viral cases improve over a few days, while loose stools may continue for several days or occasionally longer. The timing depends on the germ, your general health, and whether complications develop.

During recovery, tiredness and a reduced appetite are common. Increase food and activity gradually according to how you feel. Continue drinking enough that your urine becomes a lighter colour and returns toward its usual frequency.

Most people recover completely and have no lasting digestive damage. The infection does not always create lasting immunity, so you may get gastroenteritis again from the same or a different germ.

Arrange routine medical follow-up if diarrhoea is not improving, keeps returning, or continues for about two weeks. Earlier assessment may be needed after overseas travel or if there is unexplained weight loss, ongoing fever, or persistent abdominal pain.

When to get medical help

Seek urgent medical advice if you or a child:

Babies, particularly those under 1 year, can become dehydrated quickly. Seek advice early if a baby is feeding poorly, has fewer wet nappies, or is unusually sleepy.

Get emergency help for signs of severe dehydration or shock. These include fainting,

confusion, difficulty waking, very little or no urine, cold or mottled skin, rapid breathing, or severe weakness that prevents standing. A seizure, breathing difficulty, or vomiting blood also needs emergency care.

- Cannot keep fluids down or is repeatedly vomiting
- Has blood or black material in the stool
- Has worsening or severe abdominal pain
- Is passing much less urine than usual
- Has persistent fever or appears increasingly unwell
- Has diarrhoea after recent antibiotics or a hospital stay
- Has symptoms that are not beginning to improve
- Has a weakened immune system or a condition affected by fluid loss

Common questions

How long does gastroenteritis last?

Many cases improve within a few days. Vomiting often stops first, while diarrhoea may last longer. Symptoms that are severe, worsening, or continuing for about two weeks need medical assessment.

Is gastroenteritis contagious?

Infectious gastroenteritis often is. Germs can spread through tiny particles of stool or vomit, contaminated hands and surfaces, food, or water. You may remain infectious for a time after symptoms stop.

What should I drink with gastroenteritis?

Frequent small sips are often easier to keep down. Oral rehydration solution is designed to replace water and salts. People at higher risk of dehydration should seek advice early rather than relying only on water or sugary drinks.

Can I eat normally?

You can usually eat when you feel able. Start with small portions if nausea is a problem, then return gradually to your normal diet. Continued breastfeeding is generally recommended for babies.

Do I need antibiotics?

Usually not. Antibiotics do not work against viruses, and even bacterial gastroenteritis does

not always require them. A clinician may recommend targeted treatment when testing or the clinical picture identifies an infection likely to benefit.

What is the difference between gastroenteritis and food poisoning?

Food poisoning means illness caused by contaminated food or drink. It can cause gastroenteritis, but gastroenteritis can also spread directly between people or come from contaminated surfaces, animals, or water.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases: Viral Gastroenteritis ("Stomach Flu")
- Centers for Disease Control and Prevention: About Norovirus
- Centers for Disease Control and Prevention: How to Prevent Norovirus
- National Institute for Health and Care Excellence: Diarrhoea and vomiting caused by gastroenteritis in under 5s-diagnosis and management, Clinical Guideline CG84
- Infectious Diseases Society of America: 2017 Clinical Practice Guidelines for the Diagnosis and Management of Infectious Diarrhea
- World Health Organization: Diarrhoeal disease