

# Gastroenteritis: causes, symptoms and treatments



Gastroenteritis is an infectious disease which is an intestinal inflammation. This disease was first discovered in 1929. It was first said to be as the Zahorsky norovirus disease and not gastroenteritis. It wasn't discovered till 1972 because the doctors would look at the bacteria with an electron microscopy. It was reported that in 1968 there was an outburst in a school in ohio and attacked so many teacher and students. They said that the illness was described as vomiting, and diarrhea, with the time span of the illness being 12-24 hours. Then “ In Australia, the first confirmed norovirus outbreak occurred in 1978 and was associated with oyster consumption [13]. The outbreak affected people across Australia, and norovirus was confirmed as the cause by visualisation of virus particles in patients' faeces” (department of health, 2010) The deaths of gastroenteritis happen all over the world it's just not one specific place on where it happens.

Gastroenteritis originated from places where there is a lot of bacteria. This could be any states or country so not all places are safe from gastroenteritis or any other disease. Usually in the continent of africa is where gastroenteritis occurs. “ Children and those in the developing world are most commonly affected. As of 2011, in those less than five, there were about 1. 7 billion cases resulting in 0. 7 million deaths, with most of these occurring in the world's poorest nations.” (gastroenteritis wikipedia, 2018) What they mean when the people say developing country is that they're trying to say that it's a poor agrarian nation that is trying to turn out to be further developed financially and socially.

Some facts about gastroenteritis is that it can cause death because a report from the CDC said that the number of people that have gastroenteritis in the

U. S has increased. “ The CDC’s report found that between 1999 and 2007, gastroenteritis-related deaths increased from nearly 7, 000 Americans annually to more than 17, 000 people per year. Adults 65 and older accounted for 83 percent of deaths.”(CDC online newsroom, 2014) Some people wouldn’t be able to handle this disease because it would either very severe to them or the disease wouldn’t be curable for them. “ Death rates increased because as it stated Worldwide, acute gastroenteritis accounts for 1. 5 to 2. 5 million deaths annually. Most deaths occur in developing countries.” (epocrates, 2019) The main reason why death rates are increasing is because there is this bacteria that is called *Clostridium difficile*. This bacteria causes an inflammation to the colon which could be life threatening which could either not cause death or cause death. The other reason why this disease can be deadly is because of dehydration. And that is because since you get rid of liquids in your body and that why you have to drink a lot of liquids. This disease could easily be spread it could just be spread by hand to hand contact if someone is sick and they shake your hand. Then it could be transmitted to you because they didn’t wash their hands and they might have sneezed on their hands. That’s how easy it is for the to transmit the disease to you. So try be careful when you know that you are are sick was your hands because you could easily get someone sick. Various infections can cause gastroenteritis, including noroviruses and rotaviruses. Researchers say that they might have a secret way of of them getting rid of any stomach problem disease one of them being gastroenteritis. As said by npr news “ Before this new research, scientists thought individual particles of a virus spread illnesses more effectively. It seemed like basic arithmetic. If you have 1, 000 virus particles, you have 1,

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000 chances for cells to become infected.” (npr, 2018) When you take the flu vaccine it prevents you from having gastroenteritis as said by MayoClinic. “ The flu shot protects against influenza, which isn’t the same thing as the stomach flu (gastroenteritis). Gastroenteritis is an infection caused by a variety of viruses, including rotaviruses and noroviruses. Although it is often called the stomach flu, gastroenteritis is not caused by influenza viruses.” (mayoclinic, 1989) This disease is very common because there is about 3 million cases per year. Salmonella and campylobacter microbes are the most widely recognized bacterial reasons for gastroenteritis in the U. S. and are generally spread by half-cooked poultry, eggs, or poultry juices. Salmonella can likewise be spread through pet reptiles or live poultry. Humans that have gastroenteritis can also transmit the disease to their dog. “ Recent research has found that the same Norovirus responsible for stomach flu in humans may cause similar symptoms in dogs.”(wag, 2017) “ A study conducted at the University of Helsinki Department of Food Hygiene and Environmental Health looked at 92 samples of dog feces who lived in homes where a family member or another dog had symptoms of gastroenteritis.” (wag, 2017)

What is gastroenteritis? Gastroenteritis is an intestinal inflammation. Which occurs in the stomach where the internal organ is the major part of the digestion of the food. The small intestine where 90% of the absorption happens and the large intestine is where it absorbs the water from indigestible food matter. Digestion happens in two parts. The first one is by chewing and then the second piece of processing is the synthetic absorption that utilizes compounds. “ Have you ever had the “ stomach flu?” What you probably had was gastroenteritis – not a type of flu at all. Gastroenteritis is

an inflammation of the lining of the intestines caused by a virus, bacteria or parasites.” (medline plus, 2016)

Symptoms of gastroenteritis are stomach cramps. Having stomach cramps is common when you have problems in your stomach. Then there is belching. Is when you give out gas noises from the stomach through the mouth. Also dehydration, some examples would “be extreme thirst and dry mouth, urinating less than usual, feeling tired, dark-colored urine, decreased skin turgor, meaning that when a person’s skin is pinched and released, the skin does not flatten back to normal right away, sunken eyes or cheeks, lightheadedness or fainting.”(NIH, 2018) Vomiting like we all go is when your stomach gets rid of whatever is making you feel sick and it could also be nausea. Indigestion is when the pain in your stomach is having trouble digesting the food. One big symptom is when you have noticed that you have lost weight because either your not eating or not hungry at all. That is because since gastroenteritis is in the stomach it can cause for you not to eat. Which can cause you to be anorexic since you lost an appetite. You have to be very careful with this because say that you’re not eating then you’re also throwing up all that liquid is exiting your body which makes you lose a lot of weight. Then if you’re not eating then you are going to make yourself anorexic which would not be good. It wouldn’t be good because first you still have to deal with gastroenteritis and then you have to deal with anorexia and then anorexia causes a lot of problems to your heart. Other symptoms are in the whole body which are the chills, dehydration, fever, fast, heart rate, and insufficient urine production. The person that has this disease could also have the symptoms of like soreness of muscles or could have muscle

aches and headaches. “ Watch for signs of dehydration, such as dry skin and dry mouth, feeling lightheaded, and being really thirsty. Call your doctor if you have any of these symptoms.” (web md, 2005) These symptoms usually occur within 1 or 2 days that you are contaminated with the germ. For kids their symptoms are almost the same but the thing that kids or infants have is that they catch a fever. It all depends symptoms could last up to 24 hours to a week.

With stomach viruses you have to be so careful on what you do and what you eat because you never know how you even got the virus or who gave it to you. It can be caused by the inflammation in your gut. Also the most important cause why people get contaminated with this disease would be when you come in contact with a person or drink contaminated water or eat contaminated food. “ Yersinia, found in pork; staphylococcus, found in dairy products, meat, and eggs; shigella, salmonella found in meat, dairy products, and eggs; campylobacter, found in meat and poultry; E. coli, found in ground beef and salads.” (healthline, 2005) “ Contaminated water is sometimes ingested in unexpected ways, such as when swimming in a pond contaminated by stool from an animal or in a swimming pool contaminated by stool from another person.” (merck manual consumer version) Some other causes of gastroenteritis are toxic chemicals. For example metals that are lead, mercury, and chromium. The other toxic chemicals are chlorine and formaldehyde. What could also cause gastroenteritis are all the viruses such as “ norovirus, calicivirus, rotavirus, astrovirus and adenovirus bacteria – such as the Campylobacter bacterium, parasites – such as Entamoeba histolytica, Giardia lamblia and Cryptosporidium, bacterial toxins – the

bacteria themselves don't cause illness, but their poisonous by-products can contaminate food. Some strains of staphylococcal bacteria produce toxins that can cause gastroenteritis, chemicals – lead poisoning, for example, can trigger gastroenteritis, medication – certain medication, such as antibiotics, can cause gastroenteritis in susceptible people.” (Better health channel, 2017) So the main reason why people get gastroenteritis is because either people don't know how to be careful with themselves and how some people are not cautious.

You could always prevent yourself from getting some types of diseases. As said “ People can reduce their chances of getting or spreading viral gastroenteritis if they wash their hands thoroughly with soap and warm water for 20 seconds after using the bathroom or changing diapers and before eating or handling food, disinfect contaminated surfaces, and avoid foods or liquids that might be contaminated.” (GB health watch, 2019)

When you get gastroenteritis there are some long term effects.

Gastroenteritis can adjust the microbiome balance, prompting a diminishing in the decent variety and amount of good microorganisms in the gut, which can cause wellbeing inconveniences in the long-term. One investigation found that roughly one out of five of those influenced with norovirus experienced huge microbiota modifications, in spite of the fact that it is vague what number of them will create confusions from this unevenness. There is also some other things you could get after for example “One potential outcome of gastroenteritis is a type of irritable bowel syndrome (IBS) known as post-infectious IBS. Studies have found that post-infectious IBS affects between 5-32% of those who experience gastroenteritis.” (NIH, <https://assignbuster.com/gastroenteritis-causes-symptoms-and-treatments/>

2018) "However, the prognosis is good for this type of IBS, with symptoms typically gone soon after developing, without need for treatment. In cases of bacterial gastroenteritis, it can take a few years to resolve, but if it's caused by viral infection, then symptoms are usually gone within a few months. <sup>3</sup> Although this type of IBS is uncomfortable, it does not lead to any other adverse affects, and doesn't increase the risk of other diseases or disorders after symptom resolution." (NIH, 2018)

The people that get affected are the people at all ages. " Children can be more prone to bacterial gastroenteritis infections than adults. For example, a 2015 report states that children in the United States under a year old are more likely to get salmonella infections." (healthline 2005) that's why with children at young ages you have to be more cautious with them because you don't know how they could handle this disease. You don't know if they could handle it good or bad. On the other hand with an adult it's different because with an adult that could handle more pain than a child can. It is more severe in children than it is in adults. " However, some viruses tend to cause diarrheal disease primarily among people in specific age groups. Rotavirus infections are the most common cause of diarrhea in infants and young children under 5 years old.

Adenoviruses and astroviruses cause diarrhea mostly in young children, but older children and adults can also be affected. Noroviruses infect persons of all ages, including older children and adults." (medicine net, 2011) A baby can also get gastroenteritis. It's worse if a baby or a child gets gastroenteritis because if they get it then it could spread faster because since a baby or child doesn't know what they're doing. What I mean by how they don't know

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what their doing is that they could just touch anything and anyone and give them gastroenteritis because remember that gastroenteritis is caused by touch to touch. As NHS inform said “ Most cases in children are caused by a virus called rotavirus. Cases in adults are usually caused by norovirus(the “ winter vomiting bug”) or bacterial food poisoning.” (NHS inform, 2019) Kids and infants that get gastroenteritis some symptoms of dehydration are “thirst, urinating less than usual, or no wet diapers for 3 hours or more, lack of energy, dry mouth, no tears when crying, decreased skin turgor, sunken eyes or cheeks.” (NIH, 2018)

The structural and mechanism is there are numerous ongoing advances in comprehension of the structure work connections in rotavirus, a noteworthy pathogen of gastroenteritis, and Norwalk infection, a causative specialist of epidemic gastroenteritis in people. Rotavirus is a huge and complex icosahedral get together framed by three concentric capsid layers that encase the viral genome of 11 dsRNA sections. On account of its restorative connection, fascinating auxiliary multifaceted nature, and unique strategies procedures in the morphogenesis and replication. This infection has been the subject of broad biochemical, hereditary and basic investigations. Utilizing a blend of electron cryomicroscopy and PC picture preparing together with nuclear goals X-beam basic data, they have had the option to give not just a superior portrayal of the rotavirus engineering, yet in addition a superior comprehension of the auxiliary premise of different natural capacities, for example, trypsin-improved infectivity, infection gathering and the dynamic procedure of endogenous translation.

For the diagnosis the doctor will tell you if you have gastroenteritis based on any types of symptoms you have related to this disease. As said “ a physical exam and sometimes on the presence of similar cases in your community.”(mayo clinic, 1989) You could also be tested with a rapid stool test which can detect if you have rotavirus or norovirus but there is no other test you can take that can detect if you have gastroenteritis. Lab test are not needed but if blood and fever are presented in the stool then you are going to have to take a stool study test. But at most you don’t don’t have to go to the doctor and get checked if you have gastroenteritis because it could be self diagnosed. If it can’t be self diagnosed then that’s when you have to go to the doctor and get tests done because it’s severe and you’re going to have to go so they could give you treatments so you could get rid of it. It might take some time but at least if you go then later on you would feel better and better instead of risking your life.

Gastroenteritis could be self treatable but if you know that over the days it has gotten worse and worse then you might want to go to the doctor because this disease could be easily treated but if you know that something is wrong then you have to get help. If you don’t get help and think that it’s going to take off then you might make it really severe for yourself and then which could lead to death.

The treatments for this disease is that you have to do a fluid replacement. By this doctors mean that you have to replace all the liquids lost through sweating, bleeding, vomiting, or diarrhea. You either have to drink a lot of water and types of juices to get yourself back to how you were before. It could also be self healing but that would take longer because if you want to <https://assignbuster.com/gastroenteritis-causes-symptoms-and-treatments/>

feel better fast you have to take medicine so it could like give you a boost.

Rehydration therapy is “ a type of fluid replacement used to prevent and treat dehydration, especially that is due to diarrhea. It involves drinking water with modest amounts of sugar and salts, specifically sodium and potassium. Oral rehydration therapy can also be given by a nasogastric tube.”(oral rehydration therapy, 2010) Reactions may incorporate vomiting, high blood sodium, or high blood potassium. If vomiting occurs, it is prescribed that utilization be stopped for 10 minutes and after that step by step restarted. The suggested definition incorporates sodium chloride, sodium citrate, potassium chloride, and glucose. Glucose might be supplanted by sucrose and sodium citrate might be supplanted by sodium bicarbonate, if not accessible. Another treatment could be IV fluids. Such as blood directed into veins or medicine. In that case that is antibiotics or dietary supplements. You could also give yourself some remedies that you help you but you would still have to done more. Some remedies could be that to let your stomach settle for a while, tiny sips of water and try not to over do it with chugging so much water. Also you could try on sucking on some ice cubes. Some types of liquids you could drink is like clear soda and also non caffeinated sports drinks.

When having any type of stomach problem it is highly recommended not to have dairy, nicotine, spicy foods, caffeine, highly seasoned foods, and alcohol. You also have to be really careful on what kinds of medications you take because if you take medications that are not prescribed to you them it would make your stomach feel even worse. And that’s what you are trying to avoid to have a really bad stomach pain. Another recommendation is to rest

a lot because believe it or not when you rest it helps so much. When a child or an infant has gastroenteritis you have to be careful because since young kids are way different you have to treat them cautiously. You have to slowly get the child back into their normal diet or normal eating habits because since they didn't eat a lot because of the disease they could still not want to eat. That's why you have to feed them small portions of food and not their normal ones. What any person could eat that has gastroenteritis is " Clear broth – try our Beef broth recipe below, weak black tea (may be sweetened with a little sugar or honey) with a slice of lemon, flat lemonade or other non-cola soft drink, diluted 1 part plus 4 parts safe water, diluted cordial, made up with 1 part cordial plus 4 parts water, jelly, rehydration solutions and ice-blocks e. g. gastrolyte or hydralyte are excellent and can be purchased from pharmacies. These electrolyte and glucose replacement liquids are good for children who are sick." (foodwatch, ) and then what you should eat to get into your normal diet is to eat foods like " unbuttered toast, plain crackers or rusks, boiled rice, steamed chicken or fish, soup (no cream), stewed, canned or pureed apples or pears or other soft fruit." (foodwatch,) A very big thing to give them if they refuse to drink water or rehydration fluids is to give them apple juice. These are just things that you could eat when you have gastroenteritis because this helps you not get more sick than you already are. This also helps when you are looking for something to eat when you're in recovery.

- " Viral Gastroenteritis (Stomach Flu)." Mayo Clinic, Mayo Foundation for Medical Education and Research, 16 Oct. 2018, [www. mayoclinic.](http://www.mayoclinic.org)

[org/diseases-conditions/viral-gastroenteritis/symptoms-causes/syc-20378847](https://www.cdc.gov/diseases-conditions/viral-gastroenteritis/symptoms-causes/syc-20378847) .

- “ Gastroenteritis (Stomach Flu): Symptoms, Causes, Treatments.” WebMD, WebMD, [www. webmd. com/digestive-disorders/gastroenteritis](https://www.webmd.com/digestive-disorders/gastroenteritis) .
- “ Chapter 2: Background.” Department of Health | Chapter 2: Background, [www. health. gov. au/internet/publications/publishing. nsf/Content/cda-cdna-norovirus. htm-l~cda-cdna-norovirus. htm-l-2](https://www.health.gov.au/internet/publications/publishing.nsf/Content/cda-cdna-norovirus.htm-l~cda-cdna-norovirus.htm-l-2) .
- Cunha, John P. “ What Is the Treatment for Gastroenteritis?” MedicineNet, [www. medicinenet. com/a\\_doctors\\_view\\_on\\_gastroenteritis\\_treatment/views. htm](https://www.medicinenet.com/a_doctors_view_on_gastroenteritis_treatment/views.htm) .
- “ What Is Gastroenteritis?” Google, Google, [www. google. com/amp/s/health. usnews. com/health-care/patient-advice/articles/what-is-gastroenteritis? context= amp](https://www.google.com/amp/s/health.usnews.com/health-care/patient-advice/articles/what-is-gastroenteritis?context=amp) .
- “ Gastroenteritis.” *The Facts about Gastroenteritis* . , [www. gbhealthwatch. com/gastroenteritis-details. php](https://www.gbhealthwatch.com/gastroenteritis-details.php) .
- “ Gastroenteritis.” *Wikipedia* , Wikimedia Foundation, 18 Mar. 2019, en. [wikipedia. org/wiki/Gastroenteritis](https://wikipedia.org/wiki/Gastroenteritis).
- Ho, Vincent. “ Explainer: What Is Gastroenteritis and Why Can’t I Get Rid of It?” *The Conversation* , 21 Apr. 2019, [theconversation. com/explainer-what-is-gastroenteritis-and-why-cant-i-get-rid-of-it-34351](https://theconversation.com/explainer-what-is-gastroenteritis-and-why-cant-i-get-rid-of-it-34351).
- Wag! “ Can Dogs Get Gastroenteritis from Humans?” *WagWalking* , Wag!, 17 July 2017, [wagwalking. com/wellness/can-dogs-get-gastroenteritis-from-humans](https://wagwalking.com/wellness/can-dogs-get-gastroenteritis-from-humans)

- “ Press Release.” *Centers for Disease Control and Prevention* , Centers for Disease Control and Prevention, [www. cdc. gov/media/releases/2012/p0314\\_gastroenteritis. html](http://www.cdc.gov/media/releases/2012/p0314_gastroenteritis.html)
- Prasad, B V, et al. “ Structural Studies on Gastroenteritis Viruses.” *Novartis Foundation Symposium* , U. S. National Library of Medicine, 2001, [www. ncbi. nlm. nih. gov/pubmed/11444031](http://www.ncbi.nlm.nih.gov/pubmed/11444031).