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Inflammation of the stomach and small intestineMedical conditionGastroenteritisOther namesGastro, stomach bug, stomach virus, stomach flu, gastric flu, gastrointestinitis, flu bugGastroenteritis viruses: A = rotavirus, B = adenovirus, C = norovirus and D = astrovirus. The virus particles are shown at the same magnification to allow size comparison.SpecialtyInfectious disease, gastroenterologySymptomsDiarrhea, vomiting, abdominal pain, fever[1][2]ComplicationsDehydration[2][3]CausesViruses, bacteria, parasites, fungi[2][4]Diagnostic methodBased on symptoms, occasionally stool culture[2]Differential diagnosisInflammatory bowel disease, malabsorption syndrome, lactose intolerance[5]PreventionHand washing, drinking clean water, proper disposal of human waste, breastfeeding[2]TreatmentOral rehydration solution (combination of water, salts, and sugar), intravenous fluids[2]Frequency2.4 billion (2015)[6]Deaths1.3 million (2015)[7]Gastroenteritis, also known as infectious diarrhea, is an inflammation of the gastrointestinal tract including the stomach and intestine.[8] Symptoms may include diarrhea, vomiting, and abdominal pain.[1] Fever, lack of energy, and dehydration may also occur.[2][3] This typically lasts less than two weeks.[8] Although it is not related to influenza, in the United States it is sometimes called the "stomach flu".[9]Gastroenteritis is usually caused by viruses;[4] however, gut bacteria, parasites, and fungi can also cause gastroenteritis.[2][4] In children, rotavirus is the most common cause of severe disease.[10] In adults, norovirus and Campylobacter are common causes.[11][12] Eating improperly prepared food, drinking contaminated water or close contact with a person who is infected can spread the disease.[2] Treatment is generally the same with or without a definitive diagnosis, so testing to confirm is usually not needed.[2]For young children in impoverished countries, prevention includes hand washing with soap, drinking clean water, breastfeeding babies instead of using formula,[2] and proper disposal of human waste. The rotavirus vaccine is recommended as a prevention for children.[2][10] Treatment involves getting enough fluids.[2] For mild or moderate cases, this can typically be achieved by drinking oral rehydration solution (a combination of water, salts and sugar).[2] In those who are breastfed, continued breastfeeding is recommended.[2] For more severe cases, intravenous fluids may be needed.[2] Fluids may also be given by a nasogastric tube.[13] Zinc supplementation is recommended in children.[2] Antibiotics are generally not needed.[14] However, antibiotics are recommended for young children with a fever and bloody diarrhea.[1]In 2015, there were two billion cases of gastroenteritis, resulting in 1.3million deaths globally.[6][7] Children and those in the developing world are affected the most.[15] In 2011, there were about 1.7billion cases, resulting in about 700,000 deaths of children under the age of five.[16] In the developing world, children less than two years of age frequently get six or more infections a year.[17] It is less common in adults, partly due to the development of immunity.[18]Bristol stool chartGastroenteritis usually involves both diarrhea and vomiting.[18] Sometimes, only one or the other is present.[1] This may be accompanied by abdominal cramps.[1] Signs and symptoms usually begin 1272hours after contracting the infectious agent.[15] If due to a virus, the condition usually resolves within one week.[18] Some viral infections also involve fever, fatigue, headache and muscle pain.[18] If the stool is bloody, the cause is less likely to be viral[18] and more likely to be bacterial.[19] Some bacterial infections cause severe abdominal pain and may persist for several weeks.[19]Children infected with rotavirus usually make a full recovery within three to eight days.[20] However, in poor countries treatment for severe infections is often out of reach and persistent diarrhea is common.[21] Dehydration is a common complication of diarrhea.[22] Severe dehydration in children may be recognized if the skin color and position returns slowly when pressed.[23] This is called "prolonged capillary refill" and "poor skin turgor".[23] Abnormal breathing is another sign of severe dehydration.[23] Repeat infections are typically seen in areas with poor sanitation, and malnutrition.[15] Stunted growth and long-term cognitive delays can result.[17]Reactive arthritis occurs in 1% of people following infections with Campylobacter species.[19] GuillainBarr syndrome occurs in 0.1%.[19] Hemolytic uremic syndrome (HUS) may occur due to infection with Shiga toxin-producing Escherichia coli or Shigella species.[24] HUS causes low platelet counts, poor kidney function, and low red blood cell count (due to their breakdown).[24] Children are more predisposed to getting HUS than adults.[17] Some viral infections may produce benign infantile seizures.[1]Viruses (particularly rotavirus (in children) and norovirus (in adults)) and the bacteria Escherichia coli and Campylobacter species are the primary causes of gastroenteritis.[15][25] There are, however, many other infectious agents that can cause this syndrome including parasites and fungi.[17][4] Non-infectious causes are seen on occasion, but they are less likely than a viral or bacterial cause.[1] Risk of infection is higher in children due to their lack of immunity.[1] Children are also at higher risk because they are less likely to practice good hygiene habits.[1] Children living in areas without easy access to water and soap are especially vulnerable.[1]Rotaviruses, noroviruses, adenoviruses, and astroviruses are known to cause viral gastroenteritis.[26] Rotavirus is the most common cause of gastroenteritis in children,[25] and produces similar rates in both the developed and developing world.[20] Viruses cause about 70% of episodes of infectious diarrhea in the pediatric age group.[13] Rotavirus is a less common cause in adults due to acquired immunity.[27] Norovirus is the cause in about 18% of all cases.[28] Generally speaking, viral gastroenteritis accounts for 2140% of the cases of infectious diarrhea in developed countries.[29]Norovirus is the leading cause of gastroenteritis among adults in America accounting for about 90% of viral gastroenteritis outbreaks.[18] These localized epidemics typically occur when groups of people spend time proximate to each other, such as on cruise ships,[18] in hospitals, or in restaurants.[1] People may remain infectious even after their diarrhea has ended.[18] Norovirus is the cause of about 10% of cases in children.[1]Salmonella enterica serovar Typhimurium (ATCC 14028) as seen with a microscope at 1000 fold magnification and following Gram stainingIn some countries, Campylobacter jejuni is the primary cause of bacterial gastroenteritis, with half of these cases associated with exposure to poultry.[19] In children, bacteria are the cause in about 15% of cases, with the most common types being Escherichia coli, Salmonella, Shigella, and Campylobacter species.[13] If food becomes contaminated with bacteria and remains at room temperature for several hours, the bacteria multiply and increase the risk of infection in those who consume the food.[17] Some foods commonly associated with illness include raw or undercooked meat, poultry, seafood, and eggs; raw sprouts; unpasteurized milk and soft cheeses; and fruit and vegetable juices.[30] In the developing world, especially sub-Saharan Africa and Asia, cholera is a common cause of gastroenteritis. This infection is usually transmitted by contaminated water or food.[31]Toxigenic Clostridioides difficile is an important cause of diarrhea that occurs more often in the elderly.[17] Infants can carry these bacteria without developing symptoms.[17] It is a common cause of diarrhea in those who are hospitalized and is frequently associated with antibiotic use.[32] Staphylococcus aureus infectious diarrhea may also occur in those who have used antibiotics.[33] Acute "traveler's diarrhea" is usually a type of bacterial gastroenteritis, while the persistent form is usually parasitic.[34] Acid-suppressing medication appears to increase the risk of significant infection after exposure to several organisms, including Clostridioides difficile, Salmonella, and Campylobacter species.[35] The risk is greater in those taking proton pump inhibitors than with H2 antagonists.[35]A number of parasites can cause gastroenteritis.[13] Giardia lamblia is most common, but Entamoeba histolytica, Cryptosporidium spp., and other species have also been implicated.[13][34] As a group, these agents comprise about 10% of cases in children.[24][34] Giardia occurs more commonly in the developing world, but this type of illness can occur nearly everywhere.[36] It occurs more commonly in persons who have traveled to areas with high prevalence, children who attend day care, men who have sex with men, and following disasters.[36]Transmission may occur from drinking contaminated water or when people share personal objects.[15] Water quality typically worsens during the rainy season and outbreaks are more common at this time.[15] In areas with four seasons, infections are more common in the winter.[17] Worldwide, bottle-feeding of babies with improperly sanitized bottles is a significant cause.[15] Transmission rates are also related to poor hygiene, (especially among children),[18] in crowded households,[37] and in those with poor nutritional status.[17] Adults who have developed immunities might still carry certain organisms without exhibiting symptoms.[17] Thus, adults can become natural reservoirs of certain diseases.[17] While some agents (such as Shigella) only occur in primates, others (such as Giardia) may occur in a wide variety of animals.[17]There are a number of non-infectious causes of inflammation of the gastrointestinal tract.[1] Some of the more common include medications (like NSAIDs), certain foods such as lactose (in those who are intolerant), and gluten (in those with celiac disease). Crohn's disease is also a non-infectious cause of (often severe) gastroenteritis.[1] Disease secondary to toxins may also occur. Some food-related conditions associated with nausea, vomiting, and diarrhea include: ciguatera poisoning due to consumption of contaminated predatory fish, scombroid associated with the consumption of certain types of spoiled fish, tetrodotoxin poisoning from the consumption of puffer fish among others, and botulism typically due to improperly preserved food.[38]In the United States, rates of emergency department use for noninfectious gastroenteritis dropped 30% from 2006 until 2011. Of the twenty most common conditions seen in the emergency department, rates of noninfectious gastroenteritis had the largest decrease in visits in that time period.[39]Gastroenteritis is defined as vomiting or diarrhea due to inflammation of the small or large bowel, often due to infection.[17] The changes in the small bowel are typically noninflammatory, while the ones in the large bowel are inflammatory.[17] The number of pathogens required to cause an infection varies from as few as one (for Cryptosporidium) to as many as 108 (for Vibrio cholerae).[17]Gastroenteritis is typically diagnosed clinically, based on a person's signs and symptoms.[18] Determining the exact cause is usually not needed as it does not alter the management of the condition.[15]However, stool cultures should be performed in those with blood in the stool, those who might have been exposed to food poisoning, and those who have recently traveled to the developing world.[13] It may also be appropriate in children younger than 5, old people, and those with poor immune function.[40] Diagnostic testing may also be done for surveillance.[18] As hypoglycemia occurs in approximately 10% of infants and young children, measuring serum glucose in this population is recommended.[23] Electrolytes and kidney function should also be checked when there is a concern about severe dehydration.[13]A determination of whether or not the person has dehydration is an important part of the assessment, with dehydration typically divided into mild (35%), moderate (69%), and severe (10%) cases.[1] In children, the most accurate signs of moderate or severe dehydration are a prolonged capillary refill, poor skin turgor, and abnormal breathing.[23][41] Other useful findings (when used in combination) include sunken eyes, decreased activity, a lack of tears, and a dry mouth.[1] A normal urinary output and oral fluid intake is reassuring.[23] Laboratory testing is of little clinical benefit in determining the degree of dehydration.[1] Thus the use of urine testing or ultrasounds is generally not needed.[42]Other potential causes of signs and symptoms that mimic those seen in gastroenteritis that need to be ruled out include appendicitis, volvulus, inflammatory bowel disease, urinary tract infections, and diabetes mellitus.[13] Pancreatic insufficiency, short bowel syndrome, Whipple's disease, coeliac disease, and laxative abuse should also be considered.[43] The differential diagnosis can be complicated somewhat if the person exhibits only vomiting or diarrhea (rather than both).[1]Appendicitis may present with vomiting, abdominal pain, and a small amount of diarrhea in up to 33% of cases.[1] This is in contrast to the large amount of diarrhea that is typical of gastroenteritis.[1] Infections of the lungs or urinary tract in children may also cause vomiting or diarrhea.[1] Classical diabetic ketoacidosis (DKA) presents with abdominal pain, nausea, and vomiting, but without diarrhea.[1] One study found that 17% of children with DKA were initially diagnosed as having gastroenteritis.[1]Percentage of rotavirus tests with positive results, by surveillance week, United States, July 2000 June 2009Further information: WASH Health aspectsA supply of easily accessible uncontaminated water and good sanitation practices are important for reducing rates of infection and clinically significant gastroenteritis.[17] Personal hygiene measures (such as hand washing with soap) have been found to decrease rates of gastroenteritis in both the developing and developed world by as much as 30%.[23] Alcohol-based gels may also be effective.[23] Food or drink that is thought to be contaminated should be avoided.[44]Breastfeeding is important, especially in places with poor hygiene, as is improvement of hygiene generally.[15] Breast milk reduces both the frequency of infections and their duration.[1]Due to both its effectiveness and safety, in 2009 the World Health Organization recommended that the rotavirus vaccine be offered to all children globally.[25][45] Two commercial rotavirus vaccines exist and several more are in development.[45] In Africa and Asia these vaccines reduced severe disease among infants[45] and countries that have put in place national immunization programs have seen a decline in the rates and severity of disease.[46][47] This vaccine may also prevent illness in non-vaccinated children by reducing the number of circulating infections.[48] Since 2000, the implementation of a rotavirus vaccination program in the United States has substantially decreased the number of cases of diarrhea by as much as 80 percent.[49][50][51] The first dose of vaccine should be given to infants between 6 and 15 weeks of age.[25] The oral cholera vaccine has been found to be 5060% effective over two years.[52]There are a number of vaccines against gastroenteritis in development. For example, vaccines against Shigella and enterotoxigenic Escherichia coli (ETEC), which are two of the leading bacterial causes of gastroenteritis worldwide.[53][54]Gastroenteritis is usually an acute and self-limiting disease that does not require medication.[22] The preferred treatment in those with mild to moderate dehydration is oral rehydration therapy (ORT).[24] For children at risk of dehydration from vomiting, taking a single dose of the anti vomiting medication metoclopramide or ondansetron, may be helpful,[55] and butylscopolamine is useful in treating abdominal pain.[56]The primary treatment of gastroenteritis in both children and adults is rehydration. This is preferably achieved by drinking rehydration solution, although intravenous delivery may be required if there is a decreased level of consciousness or if dehydration is severe.[57][58] Drinking replacement therapy products made with complex carbohydrates (i.e. those made from wheat or rice) may be superior to those based on simple sugars.[59] Drinks especially high in simple sugars, such as soft drinks and fruit juices, are not recommended in children under five years of age as they may increase diarrhea.[22] Plain water may be used if more specific ORT preparations are unavailable or the person is not willing to drink them.[22] A nasogastric tube can be used in young children to administer fluids if warranted.[13] In those who require intravenous fluids, one to four hours' worth is often sufficient.[60]It is recommended that breast-fed infants continue to be nursed in the usual fashion, and that formula-fed infants continue their formula immediately after rehydration with ORT.[61] Lactose-free or lactose-reduced formulas usually are not necessary.[61] Children should continue their usual diet during episodes of diarrhea with the exception that foods high in simple sugars should be avoided.[61] The BRAT diet (bananas, rice, applesauce, toast and tea) is no longer recommended, as it contains insufficient nutrients and has no benefit over normal feeding.[61]A Cochrane Review from 2020 concludes that probiotics make little or no difference to people who have diarrhea lasting 2 days or longer and that there is no proof that they reduce its duration.[62] They may be useful in preventing and treating antibiotic associated diarrhea.[63] Fermented milk products (such as yogurt) are similarly beneficial.[64] Zinc supplementation appears to be effective in both treating and preventing diarrhea among children in the developing world.[65]Antiemetic medications may be helpful for treating vomiting in children. Ondansetron has some utility, with a single dose being associated with less need for intravenous fluids, fewer hospitalizations, and decreased vomiting.[55][66][67][68] Metoclopramide might also be helpful.[68] However, the use of ondansetron might possibly be linked to an increased rate of return to hospital in children.[69] The intravenous preparation of ondansetron may be given orally if clinical judgment warrants.[70] Dimenhydrinate, while reducing vomiting, does not appear to have a significant clinical benefit.[1]Antibiotics are not usually used for gastroenteritis, although they are sometimes recommended if symptoms are particularly severe[71] or if a susceptible bacterial cause is isolated or suspected.[72] If antibiotics are to be employed, a macrolide (such as azithromycin) is preferred over a fluoroquinolone due to higher rates of resistance to the latter.[19] Pseudomembranous colitis, usually caused by antibiotic use, is managed by discontinuing the causative agent and treating it with either metronidazole or vancomycin.[73] Bacteria and protozoans that are amenable to treatment include Shigella[74] Salmonella typhi,[75] and Giardia species.[36] In those with Giardia species or Entamoeba histolytica, tinidazole treatment is recommended and superior to metronidazole.[36][76] The World Health Organization (WHO) recommends the use of antibiotics in young children who have both bloody diarrhea and fever.[1]Antimotility medication has a theoretical risk of causing complications, and although clinical experience has shown this to be unlikely,[43] these drugs are discouraged in people with bloody diarrhea or diarrhea that is complicated by fever.[77] Loperamide, an opioid analogue, is commonly used for the symptomatic treatment of diarrhea.[78] Loperamide is not recommended in children, however, as it may cross the immature bloodbrain barrier and cause toxicity. Bismuth subsalicylate, an insoluble complex of trivalent bismuth and salicylate, can be used in mild to moderate cases,[43] but salicylate toxicity is theoretically possible.[1]Deaths due to diarrhoeal diseases per million persons in 2012 023101118193031464780812212224504516066071799Disability-adjusted life year for diarrhea per 100,000inhabitants in 2004 It is estimated that there were two billion cases of gastroenteritis that resulted in 1.3million deaths globally in 2015.[6][7] Children and those in the developing world are most commonly affected.[15] As of 2011, in those younger than five, there were about 1.7billion cases resulting in 0.7million deaths,[16] with most of these occurring in the world's poorest nations.[17] More than 450,000 of these fatalities are due to rotavirus in children under five years of age.[10][79] Cholera causes about three to five million cases of disease and kills approximately 100,000 people yearly.[31] In the developing world, children less than two years of age frequently get six or more infections a year that result in significant gastroenteritis.[17] It is less common in adults, partly due to the development of acquired immunity.[18]In 1980, gastroenteritis from all causes caused 4.6million deaths in children, with the majority occurring in the developing world.[73] Death rates were reduced significantly (to approximately 1.5million deaths annually) by 2000, largely due to the introduction and widespread use of oral rehydration therapy.[80] In the US, infections causing gastroenteritis are the second most common infection (after the common cold), and they result in between 200 and 375million cases of acute diarrhea[17][18] and approximately ten thousand deaths annually,[17] with 150 to 300 of these deaths in children less than five years of age.[1]Gastroenteritis is associated with many colloquial names, including "Montezuma's revenge", "Delhi belly", "la turista", and "back door sprint", among others.[17] It has played a role in many military campaigns and is believed to be the origin of the term "no guts no glory".[17]Gastroenteritis is the main reason for 3.7million visits to physicians a year in the United States[1] and 3million visits in France.[81] In the United States gastroenteritis as a whole is believed to result in costs of US$23billion per year,[82] with rotavirus alone resulting in estimated costs of US$1billion a year.[1]The first usage of "gastroenteritis" was in 1825.[83] Before this time it was commonly known as typhoid fever or "cholera morbus", among others, or less specifically as "griping of the guts", "surfeit", "flux", "colic", "bowel complaint", or any one of several other archaic names for acute diarrhea.[84] Cholera morbus is a historical term that was used to refer to gastroenteritis rather than specifically cholera.[85]Many of the same agents cause gastroenteritis in cats and dogs as in humans. The most common organisms are Campylobacter, Clostridioides difficile, Clostridium perfringens, and Salmonella.[86] A large number of toxic plants may also cause symptoms.[87]Some agents are more specific to a certain species. Transmissible gastroenteritis coronavirus (TGEV) occurs in pigs resulting in vomiting, diarrhea, and dehydration.[88] It is believed to be introduced to pigs by wild birds and there is no specific treatment available.[89] It is not transmissible to humans.[90]Enterocolitis^ a b c d e f g h i j k l m n o p q r s t u v w x y z aa ab ac ad Singh A (July 2010). "Pediatric Emergency Medicine Practice Acute Gastroenteritis An Update". Pediatric Emergency Medicine Practice. 7 (7).^ a b c d e f g h i j k l m n o p q Ciccarelli S, Stolfi I, Caramia G (29 October 2013). "Management strategies in the treatment of neonatal and pediatric gastroenteritis". Infection and Drug Resistance. 6: 13361. doi:10.2147/IDR.S12718. PMC3815002. 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(dehydration), so consult a doctor quickly if you suspect you are becoming dehydrated.Signs of dehydrationMild dehydration is a common gastroenteritis symptom and is usually easily reversed by drinking lots of fluids. Severe dehydration can be fatal unless quickly treated because the organs of your body need a certain amount of fluid to function.Symptoms and signs of dehydration in adults include:Tiredness.Dizziness or light-headedness.Headache.Muscular cramps.Sunken eyes.Passing little urine.A dry mouth and tongue.Weakness.Becoming irritable.Symptoms of severe dehydration in adults include:Weakness.Confusion.Rapid heart rate.Coma.Producing very little urine.Severe dehydration is a medical emergency and immediate attention is needed.Dehydration in adults with gastroenteritis is more likely to occur in:Elderly or frail people.Pregnant women.People with severe vomiting and diarrhoea. In particular, if you are not able to replace the fluid lost with enough drinks.Viral gastroenteritis symptoms tend to appear 1-3 days after infection and can vary in severity. Typically, gastroenteritis symptoms last anywhere between a day or two, to up to 14 days.Gastroenteritis can be caused by:Viruses: Infection with noroviruses and adenoviruses are common causes of gastroenteritis in adults in the UK. However, other viruses can also be the cause.Bacteria: Food poisoning from eating contaminated food causes some cases of gastroenteritis. Many different types of microbes can cause food poisoning. Common examples of bacterial infection are called campylobacter, salmonella and Escherichia coli (E. coli).Parasites: Poisons (toxins) produced by bacteria can also cause food poisoning. Another group of microbes called parasites can also be a cause. Food and Water contaminated by bacteria or other microbes is another common cause, particularly in countries with poor sanitation. See the separate leaflet called Food Poisoning for more details.Yes, gastroenteritis is contagious so it can be easily passed on from person to person. You can catch gastroenteritis when tiny particles of faeces or vomit from an infected person enter your mouth.There are a number of ways this can happen:By touching contaminated surfaces and then your mouth or face.By eating food contaminated by an infected person.By eating food that hasn't been prepared correctly or stored at the right temperature.By close contact with an infected person, as their breath may contain small particles of vomit carrying the virus or bacteria that causes gastroenteritis.Viruses are easily spread from one person to another by close contact. This is often because of the virus being present on people's hands after they have been to the toilet. Surfaces or objects touched by the infected person can also allow transmission of the virus. The virus can also be passed on if the infected person prepares food. Outbreaks of a virus causing gastroenteritis in many people can occur - for example, in schools, hospitals or nursing homesPeople with gastroenteritis are most contagious from the moment their symptoms begin to 48 hours after they've gone away. However, they may be infections slightly before and after this period.Even when we are not in contact with someone with gastroenteritis, we can still catch it from poor storage, preparation and cooking of food, so good hygiene can help to prevent gastroenteritis too.In particular, always wash your hands:After you go to the toilet.Before you touch food.Between handling raw meat and food ready to be eaten. (There may be some germs (bacteria) on raw meat.)After gardening.After playing with pets (even healthy animals can carry certain harmful bacteria).The simple measure of washing hands regularly and properly is known to make a big difference to the chance of developing gastroenteritis.You should also take extra measures when in countries which have poor sanitation. For example, avoid drinking contaminated water and other drinks that may not be safe and avoid eating food washed in unsafe water.Gastroenteritis can become dangerous if you become dehydrated, you're throwing up a lot and can't keep fluids down, you have blood in your poo or sick (vomit), or you have severe tummy pains. If this happens, seek medical advice.A persistent high temperature (fever) or diarrhoea or puking that lasts longer than expected are other reasons to contact the doc. Also, if you're elderly, have a long-term condition such as diabetes, are pregnant or have trouble with your immune system, don't hesitate to get in touch with a health professional.Gastroenteritis is common. About 1 in 5 people in the UK will develop an episode of gastroenteritis in a year. Most people have a mild form of gastroenteritis and do not need to seek medical advice or to visit their doctor.The main symptom is diarrhoea, often with being sick (vomiting) as well. Diarrhoea means loose or watery stools (faeces), usually at least three times in 24 hours. Blood or mucus can appear in the stools with some infections.Crampy pains in your tummy (abdomen) are common. Pains may ease for a while each time you pass some diarrhoea.A high temperature (fever), headache and aching limbs sometimes occur.Can gastroenteritis have long-term effects?If vomiting occurs, it often lasts only a day or so but sometimes longer. Diarrhoea often continues after the vomiting stops and commonly lasts for several days or more. Slightly loose stools may continue for a week or so further before a normal pattern returns. Sometimes the symptoms last longer.Seek medical advice in any of the following situations, or if any other symptoms occur that you are concerned about:If you suspect that you are becoming lacking in fluid in the body (dehydrated).If you are being sick (vomiting) a lot and unable to keep fluids down.If you have blood in your diarrhoea or your sick (vomit).If you have severe tummy (abdominal) pain.If you have severe symptoms, or if you feel that your condition is getting worse.If you have a persisting high temperature (fever).If your symptoms are not settling - for example, vomiting for more than 1-2 days, or diarrhoea that does not start to settle after 3-4 days.Infections caught abroad.If you are elderly or have an underlying health problem such as diabetes, epilepsy, inflammatory bowel disease (IBD), or kidney disease.If you have a weakened immune system because of, for example, chemotherapy treatment, long-term steroid treatment, or HIV infection.If you are pregnant.Most people with gastroenteritis recognise this from their typical symptoms and they do not usually need to see a doctor or to seek medical advice. Symptoms are often quite mild and commonly get better within a few days without any specific treatment.However, in some circumstances, you may need to see a doctor when you have gastroenteritis. The doctor may ask you questions about recent travel abroad, if you have been in contact with someone with similar symptoms, or if you have recently taken antibiotic medication or been admitted to hospital. This is to look for possible causes of your gastroenteritis.The doctor will also usually check you for signs of lack of fluid in the body (dehydration). They may check your temperature, pulse and blood pressure. They may also examine your tummy (abdomen) to look for any tendernessTests are not usually needed. However, if you are particularly unwell, have bloody stools (faeces), have recently travelled abroad, are admitted to hospital, or your symptoms are not getting better, your doctor may ask you to collect a stool sample. This can then be examined in the laboratory to look for the cause of the infectionSymptoms often settle within a few days or so as your immune system usually clears the infection. Occasionally, admission to hospital is needed if symptoms are severe, or if complications develop.The following are commonly advised until symptoms ease.Fluids - have lots to drinkIf you suspect that you are dehydrated, you should contact a doctor.As a rough guide, drink at least 200 mls after each bout of diarrhoea (after each watery stool).This extra fluid is in addition to what you would normally drink. For example, an adult will normally drink about two litres a day but more in hot countries. The above advice of 200 mls after each bout of diarrhoea is in addition to this usual amount that you would drink.If you have been sick (vomited), wait 5-10 minutes and then start drinking again but more slowly. For example, a sip every 2-3 minutes but making sure that your total intake is as described above.You will need to drink even more if you are dehydrated. A doctor will advise on how much to drink if you are dehydrated.For most adults, fluids drunk to keep hydrated should mainly be water. It is best not to have drinks that contain a lot of sugar as they can sometimes make diarrhoea worse.Rehydration drinks are recommended for people who are frail, or over the age of 60, or who have underlying health problems. They are made from sachets that you can buy from pharmacies. (The sachets are also available on prescription.) You add the contents of the sachet to drinking water. Oral rehydration solutions provide a good balance of water, salts and sugar.The small amount of sugar and salt helps the water to be absorbed better from the gut (intestines) into the body. They do not stop or reduce diarrhoea. Home-made salt/sugar mixtures are used in developing countries if rehydration drinks are not available but they have to be made carefully, as too much salt can be dangerous. Rehydration drinks are cheap and readily available in the UK and are the best treatment.Eat as normally as possibleIt used to be advised not to eat for a while if you had gastroenteritis. However, now it is advised to eat small, light meals if you can. Be guided by your appetite. You may not feel like food and most adults can do without food for a few days.Eat food as soon as you are able - but don't stop drinking. If you do feel like eating, avoid fatty, spicy or heavy food at first. Plain foods such as wholemeal bread and rice are good foods to try eating first.See the separate article What to eat when you have gastroenteritis for more details.MedicationAntidiarrhoeal medicines are not usually necessary. However, you may wish to reduce the number of trips that you need to make to the toilet. You can buy antidiarrhoeal medicines from pharmacies. The safest and most effective is loperamide.The adult dose of this is two capsules at first. This is followed by one capsule after each time you pass some diarrhoea up to a maximum of eight capsules in 24 hours. It works by slowing down your gut's activity. You should not take loperamide for longer than five days.Note: do not give antidiarrhoeal medicines to infants and young children aged less than 12 years. Also, do not use antidiarrhoeal medicines if you pass blood or mucus with the diarrhoea or if you have a high temperature (fever). People with certain conditions should not take loperamide. Therefore, read the leaflet that comes with the medicine to be safe. For example, pregnant women should not take loperamide.Paracetamol or ibuprofen is useful to ease the distress that might accompany a high temperature or headache.As explained, if symptoms are severe, or continue for more than several days, your doctor may ask for a sample of the diarrhoea. This is sent to the laboratory to look for infecting microbes (bacteria, parasites, etc).Sometimes an antibiotic or other treatments are needed if certain bacteria or other infections are found to be the cause. Antibiotics are not needed for gastroenteritis caused by viruses and may even make things worse.See the separate feature Advice for recovering from gastroenteritis.Gastroenteritis complications are more likely if you have an ongoing (chronic) condition such as diabetes or if you have a weakened immune system. For example, if you are taking long-term steroid medication or you are having chemotherapy treatment for cancer.Possible complications include the following:Lack of fluid (dehydration) and salt (electrolyte) imbalance in your bodyThis is the most common complication. It occurs if the water and salts that are lost in your stools (faeces), or when you have been sick (vomited), are not replaced by you drinking adequate fluids.If you can manage to drink plenty of fluids then dehydration is unlikely to occur, or is only likely to be mild and will soon recover as you drink. Severe dehydration can lead to a drop in your blood pressure. This can cause reduced blood flow to your vital organs. If dehydration is not treated, kidney failure may also develop.Some people who become severely dehydrated need a drip of fluid directly into a vein. This requires admission to hospital.Reactive complicationsRarely, other parts of the body may react to an infection that occurs in the gut (intestines). This can cause symptoms such as joint inflammation (arthritis), skin inflammation and eye inflammation (either conjunctivitis or uveitis). Reactive complications are uncommon when a virus causes gastroenteritis.Spread of infectionThe infection can spread to other parts of your body such as your bones, joints, or the meninges that surround your brain and spinal cord. This is rare. If it does occur, it is more likely if gastroenteritis is caused by salmonella infection.Persistent diarrhoea syndromesPersistent diarrhoea may develop, but this is uncommon.Irritable bowel syndrome (IBS)IBS is sometimes triggered by a bout of gastroenteritis.Lactose intoleranceA lactose intolerance can sometimes occur for a while after gastroenteritis. This is known as secondary or acquired lactose intolerance. Your gut lining can be damaged by the episode of gastroenteritis. This leads to lack of a chemical (enzyme) called lactase that is needed to help your body digest a sugar called lactose that is in milk.Lactose intolerance leads to bloating, tummy (abdominal) pain, wind and watery stools after drinking milk. The condition gets better when the infection is over and the gut lining heals. It is more common in children.Haemolytic uraemic syndromeThis is another potential complication. It is rare and is usually associated with gastroenteritis caused by a certain type of E. coli infection. It is a serious condition where there is anaemia, a low platelet count in the blood and kidney failure. It is more common in children. If recognised and treated, most people recover well.Reduced effectiveness of some medicinesDuring an episode of gastroenteritis, certain medicines that you may be taking for other conditions or reasons may not be as effective. This is because the diarrhoea and/or vomiting means that reduced amounts of the medicines are taken up (absorbed) into your body.Examples of such medicines are medicines for epilepsy, diabetes and contraception. Speak to your doctor or practice nurse if you are unsure of what to do if you are taking other medicines and have gastroenteritis.If you have gastroenteritis, the following are recommended to prevent the spread of infection to others:Wash your hands thoroughly after going to the toilet. Ideally, use liquid soap and water but any soap is better than none. Dry properly after washing.Don't share towels and flannels.Don't prepare or serve food or drink for others.Regularly clean the toilets that you use with disinfectant. Wipe the flush handle, toilet seat, bathroom taps, surfaces and door handles with hot water and detergent at least once a day. Keep a cloth just for cleaning the toilet (or use a disposable one each time).Stay off work, college, etc, until at least 48 hours after the last episode of diarrhoea or being sick (vomiting).Rotavirus is a common cause of diarrhoea and vomiting in babies and young children. A rotavirus vaccination is routinely offered to children.Food handlers: if you work with food and develop diarrhoea or vomiting, you must immediately leave the food-handling area. For most, no other measures are needed, other than staying away from work until at least 48 hours after the last episode of diarrhoea or vomiting. Some special situations may arise and sometimes longer time off is needed. Specialist advice may be needed for some uncommon causes of gastroenteritis. If in doubt, seek advice from your employer or GP.If the cause of gastroenteritis is known to be (or suspected to be) a microbe called Cryptosporidium spp., you should not swim in swimming pools for two weeks after the last episode of diarrhoea. What Is Contagious Signs & Symptoms Recovery Causes Diagnosis Call a Doctor Diet Changes Home Remedies Treatment Prevention Pictures Picture of a sick woman in bed with stomach flu by iStock Gastroenteritis, commonly referred to as the "stomach flu, is a condition that causes irritation and inflammation of the stomach and intestines (the gastrointestinal tract). The most common symptoms of gastroenteritis are: diarrhea, nausea, vomiting, and crampy abdominal pain. Many people also refer to gastroenteritis as "stomach flu." This can sometimes be confusing because influenza (flu) symptoms include: headache, muscle aches and pains, and respiratory symptoms. Influenza does not involve the gastrointestinal tract. The term stomach flu presumes a viral infection, even though there may be other causes of infection. Viral infections are the most common cause of gastroenteritis; but bacteria, parasites, and food-borne illnesses (such as from shellfish that has been contaminated by sewage or from consuming raw or undercooked shellfish from contaminated water) can also be the offending agents. Many people who experience vomiting and diarrhea that develops from these types of infections or irritations think they have "food poisoning," when they actually may have a food-borne illness. Travelers to foreign countries may experience "traveler's diarrhea" from contaminated food and unclean water. The severity of infectious gastroenteritis depends on the immune system's ability to resist the infection. Electrolytes (these include essential chemicals like sodium, potassium, and chloride) may be lost in vomit and diarrhea fluid. Most people recover easily from a short episode of vomiting and diarrhea by drinking clear fluids to replace the fluid that was lost and then gradually progressing to a normal diet. But for others, especially infants and the elderly, the loss of bodily fluid with gastroenteritis can cause dehydration, which can be a life-threatening illness unless it is treated and fluids in the body are replaced. The most recent data from the CDC show that deaths from gastroenteritis have increased dramatically. In 2007, 17,000 people died from gastroenteritis, overwhelmingly, these people were older and the most common infections were Clostridium difficile and Norovirus. There were an estimated 179 million cases of gastroenteritis in the United States in 2010 and more than 80% of those who were ill never sought medical care. Only 1% required hospital admission. Viruses and bacteria can be contagious and can spread through the consumption of contaminated food or water. In up to 50% of diarrheal outbreaks, however, no specific agent is found. Gastroenteritis or stomach flu can spread from person to person due toimproper hand-washing following a bowel movement or handling a soiled diaper. By definition, gastroenteritis affects both the stomach and the intestines, resulting in vomiting and diarrhea. Common Stomach Flu (Gastroenteritis) Symptoms and Signsin Children and Adults Low-grade fever, usually less than 100 F (37.7 C) Nausea with or without vomiting Mild-to-moderate diarrhea (Dehydration also can intensify the symptoms of nausea and vomiting.) Crampy painful abdominal bloating (The cramps may come in cycles, increasing in severity until a loose bowel movement occurs and the pain resolves somewhat leaving a dull ache.) More Serious Signs and Symptoms of the Stomach Flu (Gastroenteritis) in Children and Adults Blood in vomit or stool (this is never normal and the affected individual should seek immediate medical care) Vomiting more than 48 hours Fever higher than 101 F (40 C) Swollen abdomen Increasingly severe abdominal pain Dehydrationweakness, lightheadedness, decreased urination, dry skin, dry mouth, and lack of sweat and tears are characteristic symptoms of dehydration. If symptoms continue or worsen, call a healthcare professional. Diarrhea is one of the leading causes of infant sickness and death. Worldwide, diarrhea accounts for 3-5 million deaths yearly for all age groups. In general, most adults and children recover after they are appropriately rehydrated. Gastroenteritis caused by viruses may last 1-2 days. However, some bacterial cases can continue for months. Stomach flu (gastroenteritis) is almost always caused by an infection. The infection can enter the body in different ways. Drinking contaminated water is a common cause and sometimes the infection may enter the body because of poor personal hygiene (not washing your hands after using the toilet). Food poisoning may be one cause of gastroenteritis, and that infection may be caused by a bacteria, virus, or parasite. Depending on the circumstances, food may be contaminated by how long it has been stored, cleaned, prepared, and how long it has been left out to be served. If there is an outbreak in which many people have the signs and symptoms of vomiting and diarrhea, and the type of infection is found, health agencies try to find the source of the infection to prevent further illnesses and outbreaks. In some instances, it may be related to only one restaurant or cruise ship, but for other infectious outbreaks, the Centers for Disease Control and Prevention has to do significant detective work to find the root cause that infected the food chain. Gastroenteritis has many causes. Viruses and bacteria are the most common. Norovirus - Fifty to seventy percent of cases of gastroenteritis in adults are caused by noroviruses (genus Norovirus, family Caliciviridae). This virus is highly contagious and spreads rapidly. Norovirus is the most common cause of gastroenteritis in the United States.Noroviruses can be transmitted byconsuming contaminated food and liquids,touching objects contaminated with Norovirus and then placing the hands or fingers in the mouth,direct contact with an infected individual (for example, exposure to Norovirus when caring for or sharing foods, drinks, eating utensils with an affected individual, andexposure to infected individuals and objects in daycare centers and nursing homes.Norovirus is often in the news when cruise ship passengers contract the virus causing gastroenteritis epidemic on board the ship.Rotavirus - According to the CDC, "Rotavirus was also the leading cause of severe diarrhea in U.S. infants and young children before rotavirus vaccine was introduced for 2006. Prior to that, almost all children in the United States were infected with rotavirus before their 5th birthday. Each year in the United States in the pre-vaccine period, rotavirus was responsible for more than 400,000 doctor visits; more than 200,000 emergency room visits; 55,000 to 70,000 hospitalizations; and 20 to 60 deaths in children younger than 5 years of age."Other viruses that cause gastrointestinal symptoms include:Adenoviruses - This virus most commonly causes respiratory illness; however, other illnesses may be caused by adenoviruses and include gastroenteritis, bladder infections, and skin rashes.Parvoviruses - The human bocavirus (HBoV), which can cause gastroenteritis belongs to the family Parvoviridae.Astroviruses - Astrovirus infection is the third most frequent cause of gastroenteritis in infants. These tiny organisms are less frequently responsible for intestinal irritation. A person may become infected with one of these by drinking contaminated water. Swimming pools are common places to come in contact with these parasites. Common parasites include Giardia is the most frequent cause of waterborne diarrhea, causing giardiasis. Often, people become infected after swallowing water that has been contaminated by animal feces (poop). This may occur by drinking infected water from rivers or lakes but giardia may also be found in swimming pools, wells, and cisterns. Cryptosporidium (Crypto) is a parasite that lives in the intestine of affected individuals or animals. The infected individual or animal sheds the Cryptosporidium parasite in the stool. Crypto may also be found in food, water, soil, or contaminated surfaces (swallowing contaminated water, beverages, uncooked food, unwashed fruits, and vegetables) or on contaminated surfaces (touching contaminated bathroom fixtures, toys, diaper pails, changing tables, changing diapers, caring for an infected individual or handling an infected cow or calf). Those at risk for serious disease are individuals with weakened immune systems. Bacteria may cause gastroenteritis directly by infecting the lining of the stomach and intestine. Some bacteria such as Staphylococcus aureus produce a toxin that is the cause of the symptoms. Staph is a common cause of food poisoning.Escherichia coli infection can cause significant complications. E. coli O157:H7 (one type of the bacteria) can cause complications in approximately 10% of affected individuals (for example, kidney failure in children [hemolytic-uremic syndrome or HUS], bloody diarrhea, and thrombotic thrombocytopenic purpura [TTP] in the elderly.Salmonella, Shigella and CampylobacterSalmonella, Shigella and Campylobacter are also common causes of illness.Salmonella is contracted by ingesting the bacteria in contaminated food or water, and by handling poultry or reptiles such as turtles that carry the germs.Campylobacter occurs by the consumption of raw or undercooked poultry and meat and through cross-contamination with other foods. Infants may acquire the infection by contact with poultry packages in shopping carts. Campylobacter is also associated with unpasteurized milk or contaminated water. The infection can be spread to humans by contact with infected stool of an ill pet (for example, cats or dogs). It is generally not passed from human to human.Shigella bacteria generally spreads from an infected person to another person. Shigella are present in diarrheal stools of infected individuals while they are ill, and for up to one to two weeks after contracting the infection. Shigella infection also may be contracted by eating contaminated food, drinking contaminated water, or swimming or playing in contaminated water (for example, wading pools, shallow play fountains). Shigella can also spread among men who have sex with male partners.Clostridium difficileClostridium difficile (C difficile) bacteria may overgrow in the large intestine after a person has been on antibiotics for an infection. Although almost any antibiotic can lead to this condition, the most common antibiotics that pose a potential risk for C difficile include:clindamycin (Cleocin),fluoroquinolones (levofloxacin [Levaquin], ciprofloxacin [Cipro, Proquin]),penicillins, andcephalosporins (cephalexin [Keflex], cefadroxil [Duricef], ceftriaxone [Rocephin]).Other risk factors for C difficile infection include hospitalization, individuals 65 years of age or older, and pre-existing chronic medical conditions.The CDC lists C. Difficile as one of the most common causes of death due to gastroenteritis and suggest that new strains of the bacteria have become more aggressive and dangerous. Gastroenteritis that is not contagious to others can be caused by: chemical toxins (usually found in seafood), food allergies, heavy metals, antibiotics, and other medications. Gastroenteritis is often self-limiting, and the care is supportive designed to control symptoms and prevent dehydration. Tests may not be needed. The health care professional often may make the diagnosis based on history of symptoms and physical examination.If the symptoms persist for a prolonged period of time blood and stool tests may be appropriate to determine the cause of the vomiting and diarrhea.Patient History and Physical ExaminationTaking a thorough history and physical examination is very helpful in making the diagnosis.Questions asked by the health care professional may include:Have any other family members or friends had similar exposure or symptoms?What is the duration, frequency, and description of the patient's bowel movements, and is vomiting present?Can the patient tolerate any fluids by mouth?These questions help determine the potential risk of dehydration. Other questions to help assess hydration also may include the amount and frequency of urination, weight loss, lightheadedness, and fainting (syncope).Other information in the medical history that may be helpful in the diagnosis of gastroenteritis include:Travel history: Travel may suggest E. coli bacterial infection or a parasite infection acquired from something the patient ate or drank. Norovirus infections tend to occur when many people are confined to a close space (for example, cruise ship).Exposure to contaminated water: Swimming in contaminated water or drinking from suspicious fresh water such as mountain streams or wells may indicate infection with Giardia - an organism found in water.Diet change, food preparation habits, and storage: When the disease occurs following exposure to undercooked or improperly stored or prepared food (for example foods at picnics and BBQs that should be refrigerated to avoid contamination), food poisoning must be considered. In general, symptoms caused by bacteria or their toxins will become apparent after the following amount of time:Staphylococcus aureus in 2 to 6 hoursClostridium 8 to 10 hoursSalmonella in 12 to 72 hoursMedications: If the patient has used antibiotics recently, they may have antibiotic-associated irritation of the gastrointestinal tract, caused by Clostridium difficile infection.Toxins and poisons: Gastrointestinal symptoms can occur following exposure to a variety of toxins and poisons, which can occur in association with job-related or recreational activities.Physical examination will look for other causes of vomiting and/or diarrhea unrelated to gastroenteritis. If there are specific tender areas in the abdomen, the doctor may want to determine if the patient has one of the following, or any other conditions that may be the cause of the patients symptoms:Other noninfectious gastrointestinal diseases such as Crohn's disease, ulcerative colitis, or microscopic colitis also must be considered. The doctor will feel the abdomen for masses. A rectal examination may be considered, where the physician inspects the anus for any abnormalities and then inserts a finger into the rectum to feel for any masses. Stool obtained during this test may be tested for the presence of blood.The doctor may order other laboratory tests, including:complete blood count (CBC),electrolytes, andkidney function tests.Stool samples may be collected and tested for white blood cells, red blood cells and different types of infections.If warranted based on the patient's presentation and situation, stool cultures may be taken to try and grow the organism that might have caused the infection. The results may not affect treatment, even if the culture is positive, since most infections resolve by themselves. Treatment of gastroenteritis includes self-care and home remedies that are aimed at keeping the patient well hydrated to avoid dehydration. Medical treatment may be necessary if the patient becomes dehydrated and needs intravenous (IV) fluids at the doctor's office or emergency department to replenish lost fluids. Sometimes antibiotics may be prescribed to treat some infections (for example, C. diff). Antiemetic medications can be used to treat nausea and vomiting. Antidiarrheal medication to decrease the frequency and amount of diarrhea is sometimes recommended depending upon the cause of diarrhea. Vomiting blood or having bloody or black bowel movements are not normal, and emergency care should be sought, however;some medications such as iron or bismuth subsalicylate (Pepto-Bismol) can turn stool black in color. Fever, increasing severity of abdominal pain, and persistent symptoms should not be ignored, and seeking medical care should be considered. In general, clear fluids (anything you can see through), may be tolerated in small amounts. Think of it as adding just an ounce or less to the normal saliva that the patient is already swallowing. However, giving too much fluid at one time may cause increased nausea due to a distended stomach, which causes additional irritation. Clear fluids do not include carbonated beverages, but flat colas or ginger ale (with no fizz) are often well tolerated. Coke syrup also may be helpful in settling the stomach. Jell-O and popsicles may be "solid food" alternatives to clear fluids in children who aren't interested in clear fluids. After an infection or irritation of the digestive tract, the person may not be able to eat a regular diet. Some people may be unable to tolerate dairy products for several weeks after the disease has run its course. The diet should be advanced slowly from bland non-dairy soups and grain products to a solid meal. Gradually transition to the BRAT Diet. The treatment of gastroenteritis is aimed at maintaining hydration while the vomiting and diarrhea resolve, often spontaneously. Home remedies that address keeping fluid in the body are key to recovery. Since most causes of gastroenteritis are due to viruses, replacing the fluid lost because of vomiting and diarrhea allows the body to recuperate and fight the infection itself. Oral rehydration therapy using balanced electrolyte solutions such as Pedialyte or Gatorade/Powerade may be all that is needed to replenish the fluid supply in an infant or child. Plain water is not recommended because it can dilute the electrolytes in the body and cause complications such as seizures due to low sodium. Although adults and adolescents have a larger electrolyte reserve than children, electrolyte imbalance and dehydration may still occur as fluid is lost through vomiting and diarrhea. Severe symptoms and dehydration usually develop as complications of medication use or chronic diseases such as diabetes or kidney failure; however, symptoms may occur in healthy people.Clear fluids are appropriate for the first 24 hours to maintain adequate hydration.After 24 hours of fluid without vomiting, the diet can be progressed to other foods, for example, the BRAT diet, as tolerated. The key to oral rehydration is small frequent feedings. If offered free access to a bottle, infants may drink quickly to quench their thirst and then vomit because of a distended, full stomach. Instead, it may be best to limit the amount of fluid given at one time. There are a variety of regimens that are used and they follow a basic format: Offer 1/3 of an ounce (5 to 10 cc) of fluid at one time, wait for 5 to 10 minutes, then repeat. If this amount is tolerated without vomiting, increase the amount of fluid to 2/3 of an ounce (10 to 20 cc). Wait and repeat. If tolerated, increase the fluid offered to 1 ounce (30 cc) at a time. If vomiting occurs, go back to the 1/3 of an ounce (5 to 10 cc) and restart. Once the child is tolerating significant fluids by mouth, a more solid diet can be offered. The important thing to remember is that the goal is to provide fluid to the child and not necessarily calories. In the short term, hydration is more important than nutrition. For infants and children, fluid status can be monitored by: whether they are urinating, if they have saliva in their mouths, tears in their eyes, and sweat in their armpits or groin. If the child's baseline weight is known, dehydration can be measured by comparing weight. Medical care should be accessed immediately if the child is listless, floppy, or does not seem to be acting normally. The critical step is replacing fluids when the person is nauseous and doesn't want to drink (hydrate).This is especially difficult with infants and children. Small frequent offerings of clear fluids, sometimes only a mouthful at a time, may be enough to replenish the body's fluid stores and prevent admission to the hospital for intravenous (IV) fluid administration. Antibiotics are usually not prescribed until a bacteria or parasite has been identified as the cause of the infection. Antibiotics may be given for certain bacteria, specifically Campylobacter, Shigella, and Vibrio cholerae, if properly identified through laboratory tests. Otherwise, using any antibiotic or the wrong antibiotic can worsen some infections or make them last longer.Antibiotics are not used to treat viralinfections.Some infections, such as Salmonella, are not treated with antibiotics. With supportive care comprising of fluids and rest, the body is able to fight off and rid itself of the infection without antibiotics.For adults, the doctor may prescribe medications to stop the vomiting (antiemetics) such as:promethazine (Phenergan, Anergan),prochlorperazine (Compazine), orondansetron (Zofran).Sometimes these medications are prescribed as a suppository.Zofran is an effective anti-nausea medication used for infants and children.Antidiarrheal medications are not usually recommended if the infection is associated with a toxin that causes the diarrhea. The most common antidiarrheal agents for people older than 3 years of age include over-the-counter (OTC) medications such as:diphenoxylate atropine (Lomotil, Lofene, Lonox), orloperamide hydrochloride (Imodium). With most infections, the key is to block the spread of the organism. To prevent from getting the stomach flu:Always wash your hands.Eat properly prepared and stored food.Bleach soiled laundry.Vaccinations for Vibrio cholerae, and rotavirus have been developed. Rotavirus vaccination is recommended for infants in the U.S. Vaccines for V. cholerae may be administered to individuals traveling to at-risk areas.Food handlers should not return to work until their symptoms have resolved. Salmonella infections are a special case; those who work in the medical profession or who are food handlers need to have negative stool cultures for Salmonella before being allowed to return to work. Cryptococcus colitis (shown at the arrows). Image courtesy of Alexis Carter, MD, Department of Pathology and Laboratory Medicine, East Carolina University.Pathological changes seen in intestinal lumen with pseudomembranous colitis (indicated by arrows). Image courtesy of Alexis Carter, MD, Department of Pathology and Laboratory Medicine, East Carolina University.Strongyloides stercoralis parasite (highlighted by arrows). Image courtesy of Alexis Carter, MD, Department of Pathology and Laboratory Medicine, East Carolina University.Giardia lamblia (indicated by the arrows). Image courtesy of Alexis Carter, MD, Department of Pathology and Laboratory Medicine, East Carolina University. Normal stain of stool sample looking for ova, parasites, and leukocytes. Image courtesy of Alexis Carter, MD, Department of Pathology and Laboratory Medicine, East Carolina University. Foodborne Germs and Illnesses. CDC. Updated: Oct 23, 2019.< Tintinalli J, et al. Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9th edition. . Wikswo ME, Hall AJ. Outbreaks of acute gastroenteritis transmitted by person-to-person contact--United States, 2009-2010. MMWR Surveill Summ. 2012 Dec 14. 61(9):1-12. Although it's commonly called stomach flu, gastroenteritis isn't the same as influenza. The flu (influenza) affects only your respiratory system your nose, throat and lungs. Gastroenteritis, on the other hand, attacks your intestines, causing signs and symptoms such as: Watery, usually nonbloody diarrhea bloody diarrhea usually means you have a different, more severe infection Nausea, vomiting or both Stomach cramps and pain Occasional muscle aches or headache Low-grade fever Depending on the cause, viral gastroenteritis symptoms may appear within 1-3 days after you're infected and can range from mild to severe. Symptoms usually last just a day or two, but occasionally they may last up to 14 days.Because the symptoms are similar, it's easy to confuse viral diarrhea with diarrhea caused by bacteria, such as Clostridioides difficile, salmonella and Escherichia coli, or parasites, such as giardia. High-risk areas for traveller's diarrhoea include developing regions where endemic diarrhoea rates are highest. This includes Latin America, Africa, the Middle East and parts of Asia. Developed nations such as the United States, Europe and Australia pose the lowest risk. Travellers from low-risk, industrialised countries face a higher risk when visiting high-risk areas. The illness appears to be associated with more frequent reliance on public rather than private eating establishments and alterations in diet. Illness is usually self-limiting and lasts for three to four days if left untreated. Mortality from the illness is almost non-existent but morbidity can be considerable, confining travellers to bed in up to 30% of cases or altering 40% of itineraries. Escherichae coli (E. coli) is a common cause of traveller's diarrhoea, accounting for up to 70% of cases. Acquisition of these pathogenic agents is through ingestion of contaminated food or water. What can I do to prevent getting traveller's diarrhoea? Raw vegetables, raw meat or seafood and other moist foods maintained at room temperature are high-risk items. Tap water and ice are also considered to be unsafe. In general, food should be chosen if it is served piping hot. The risk for the development of travellers diarrhoea increases when eating at restaurants, particularly when eating food purchased from street vendors. Safe food items include boiled or bottled water and beverages, canned products and fruits that can be peeled. Studies have shown that prophylactic antibiotics are effective in reducing the frequency of travellers diarrhoea, but this is generally not recommended due to side effects inherent with antibiotics consumption, especially with prolonged use. Can I self-medicate for travellers diarrhoea? Oral fluid is the mainstay of therapy. If symptomsaremoderately severe (stool frequency of up to 5x per day), anti-diarrhoeal agents such as loperamide (Lomotil) at 4mg three times per day are recommended.Medical opinion and antibiotics are recommended if the frequency of diarrhoea is more than 6 times per day especially if there is associated fever or blood in the stools. Last updated: Wednesday, January 5, 2022 | 3 min reading time Gastroenteritis is a viral infection which causes inflammation in your stomach and intestines. While it is also commonly known as a 'stomach flu' because it causes pain in the stomach area, it is not related to influenza at all.It is a common condition, and anyone can be affected so read on to learn more about gastroenteritis symptoms, causes, treatment and prevention.Gastroenteritis (stomach flu) symptomsMost people experience gastroenteritis at some stage of their lives, so may have experienced some of these symptoms before:Watery diarrhoeaNauseaVomitingStomach pain and crampsFeverHeadacheIn rare cases, gastroenteritis can leave you severely dehydrated. Watch out for:Intense thirstSunken eyesDizzinessFeeling foggy or unable to focusBlurred visionDry mouthMost people will recover without any complications, however those with underdeveloped or compromised immune systems, including infants and the elderly, it can be a dangerous illness.When is gastroenteritis (stomach flu) an emergency?If you experience these symptoms, visit the emergency department or call an ambulance. You should also seek help if:Your vomiting lasts more than a dayYour diarrhoea lasts more than 2 daysYou have a chronic illness, such as diabetes, kidney disease or heart problemsYou notice blood in your vomit or stoolsYou experience severe abdominal painYou have a fever of more than 38CYou are pregnantGastroenteritis (stomach flu) in children and infantsChildren and infants are at particular risk of severe symptoms from gastroenteritis. Because they become dehydrated much faster than adults, keep a close eye on them if they are unwell. If you notice a sunken fontanelle (the soft spot on the top of their skull), extreme thirst, fewer or no wet nappies, dry skin, or severe irritability or lethargy, take them to the emergency room. If in doubt, seek medical attention.Although gastroenteritis is not fully preventable, there are vaccinations available for some of the viral infections that cause it, such as rotavirus, which you should ask your doctor about.Causes of gastroenteritis (stomach flu)Gastroenteritis is a contagious viral infection, usually caused by rotavirus or norovirus. Norovirus is the most common cause of acute gastroenteritis worldwide, accounting for 685 million cases a year. Other viral infections leading to gastro include astrovirus and adenovirus.Viral infections are easily spread which is why outbreaks of gastroenteritis are so frequent. The viruses that cause gastroenteritis are often transmitted through:Person to person contactWater or food that is contaminatedFailure to keep surfaces cleanPoor hand-washing techniquesBeing in cramped or close quarters with infected peopleIs gastroenteritis (stomach flu) the same as food poisoning?Contrary to popular belief, gastroenteritis is not the same as food poisoning. Gastroenteritis is the inflammation of the stomach or the intestine. However, if the gastroenteritis is caused by contaminated food, it is then labelled as food poisoning.Food poisoningFood poisoning can be caused by food contaminated with bacteria, viruses or parasites. Most people find they contract food poisoning from the following:Raw eggs or meatUnpasteurised soft cheese or milkRaw fish or shellfishLeftover rice that was not reheated adequatelyUnwashed fruit or vegetablesThe symptoms are the same as gastroenteritis. The onset of symptoms from eating the contaminated food varies, depending on the contaminant which can range from 1 hour to 7 days.Preventing gastroenteritis (stomach flu)Wash your hands before cooking or handling foodSanitise surfaces, such as your kitchen counter or work desk, regularlyKeep raw foods separate from ready-to-eat foodsAvoid raw or undercooked foodRefrigerate and freeze perishable food promptlyAvoid close contact with infected individuals. If you are ill with gastroenteritis, you should avoid close contact with others until you feel better.Talk to your doctor about vaccinations for your childHome remedies to treat gastroenteritis (stomach flu)In most cases, gastroenteritis will resolve itself on its own. If the symptoms persist, or are severe, you may need a course of antibiotics. However, if the symptoms are mild, you can try the following home remedies for gastroenteritis treatment:Increase your fluid intakeDo not drink too much at once in case it triggers vomiting. Try to take in a cup of water every hour. Young children should have a smaller amount every 30 minutes. Frozen ice popsicles are another way to encourage your child to take in fluid if they aren't getting enough.Encourage rehydration with electrolytesOral rehydration solutions can be dissolved in your water, or you can try sports drinks, which can help to replenish what minerals and fluids that your body has lost. Try to avoid sugary drinks if you can. Your doctor can advise what might be best for you and can offer you infant solutions if you have young children.Eat easily digestible foodsAs you start to be able