GASTROENTERITIS

WHAT IS IT?
Gastroenteritis refers to inflammation of the stomach and intestines. It is most commonly caused by viruses, although bacteria and parasites may sometimes be responsible.

Viral gastroenteritis is a self-limited disease and is most commonly caused by the norovirus. Other viral agents include rotavirus, adenovirus, and astrovirus. Even though it is commonly referred to as the “stomach flu”, viral gastroenteritis is different from “the flu” and is not caused by the influenza virus.

WHAT ARE THE SYMPTOMS?
Symptoms usually begin abruptly 1-2 days following exposure to a virus and may last for up to 14 days, depending on the specific virus. Symptoms often include abdominal pain, diarrhea (at least 3 times/day), nausea, and/or vomiting. Other symptoms may include fever, body aches, headaches, fatigue, and weight loss.

IS IT CONTAGIOUS?
Yes, viral gastroenteritis is very contagious! The viruses that cause gastroenteritis are spread through close contact with infected persons (ie. by sharing food, drinks, or eating utensils) and by consuming contaminated foods or beverages.

HOW IS IT DIAGNOSED?
Viral gastroenteritis is diagnosed based upon characteristic symptoms and physical exam findings. If a bacterium, parasite, or other cause is suspected, stool studies may be ordered for further testing.

- If you are instructed to collect stool samples at home, you will be given a kit with instructions. Keep the samples at room temperature, and submit them to the lab as soon as you can.
- If an antibiotic or antiparasitic medication is prescribed and stool studies are recommended, collect the stool sample prior to starting the medication.

HOW IS IT TREATED?
Treatment for viral gastroenteritis is focused on supportive measures that help control symptoms while the body fights off the virus on its own. Most cases of viral gastroenteritis will resolve within 3-7 days without complications.

The most important goal of treatment is preventing dehydration (fluid loss) and loss of important chemicals known as electrolytes from diarrhea and/or vomiting. Dehydration can be serious if left untreated. The best way to prevent and treat dehydration is by drinking fluids. Intravenous (IV) fluids may be necessary in patients with severe dehydration.

- **ORAL REHYDRATION**
  - Solutions containing a mixture of water, salt, and sugar are used to replace lost fluids and electrolytes. These include non-caffeinated fluids or an oral rehydration solution (ORS) approved by the World Health Organization (WHO).
    - Drink enough fluids to satisfy thirst and to maintain a pale yellow urine.
    - If diarrhea or vomiting persist, rehydrate with an ORS after each episode.
  - For mild diarrhea, most healthy adults can meet their fluid and salt needs with diluted fruit juices, flavored soft drinks (Sprite, gingerale), broths, soups, and saltine crackers. **Sports drinks**, like Gatorade, may also be used but they are not equivalent to an ORS. **Pedialyte** is preferred over sports drinks because it contains less sugar (excess sugar can worsen diarrhea). **Pedialyte powder** is available for purchase through the Student Health Pharmacy.
  - For moderate to severe diarrhea, an ORS is preferred. An ORS should also be used in those with underlying medical conditions, the elderly, and children.
    - **WHO Oral Rehydration Salts** can be purchased worldwide (REI Outfitters, Amazon, etc). Examples include Trioral and Adventure Medication Kits Oral Rehydration Salts.
    - **Commercial ORS products**, such as Ceralyte and Rehydralyte, are also effective.
    - You can make your own ORS by mixing 1/2 teaspoon of salt, 1/2 teaspoon of baking soda, and 4 tablespoons of sugar in 1 liter of water.
DIET
No specific dietary restrictions are necessary. Once you are able to tolerate fluids, try eating small portions of foods that sound good to you. The following suggestions can help make the transition to solid foods easier:

- If you are unable to tolerate a regular diet, try foods that are easy on the stomach, like:
  - The BRAT diet (bananas, rice, applesauce, toast), crackers, oatmeal, yogurt, jello, etc.
  - Bland foods (noodles, boiled/baked potatoes, boiled carrots, boiled/baked skinless chicken, etc) flavored with salt.
- Smaller meals are less likely to cause nausea or vomiting.
- If diarrhea is severe, it may be best to avoid fatty foods until your gut function returns to normal.
- After a significant diarrheal illness, some patients will experience a temporary period of lactose intolerance, which can last a few weeks to months. In these cases, it is best to avoid lactose products (except for yogurt) until your gut has fully recovered.

MEDICATIONS
- Acetaminophen (Tylenol) can be taken for fever and muscle aches.
  - You may take up to a maximum of 1000mg every 8 hours if you do not have any known liver problems. Avoid alcohol when taking acetaminophen.
  - Ibuprofen (Advil or Motrin), naproxen (Aleve), and aspirin are best avoided as they can irritate the lining of the stomach.
- Loperamide (Imodium) can be taken for 1-2 days to treat diarrhea as long as you are not running a high fever (>101°F), and there is no blood or mucus in your stool.
  - The dosage is 2 tablets (4 mg total) initially, followed by 1 tablet (2 mg) after each unformed stool. Do not take more than 8 tablets (16 mg total) in 24 hours.
  - You should stop taking Imodium and see a healthcare provider if your diarrhea lasts for more than 48 hours.
- Bismuth (Pepto-Bismol) is a safe alternative to loperamide in patients with bloody diarrhea. Do not take bismuth with aspirin or if you are allergic to aspirin.
- Anti-nausea medications may also be prescribed for a few days if needed.
- Probiotics may shorten the course of diarrhea. Studies have shown improved recovery in children, but further studies in adults are still pending.
- Antibiotics may be prescribed if a bacterial cause is suspected or confirmed.

TO AVOID SPREADING THE INFECTION TO OTHERS:
- Wash your hands frequently with soap and water, especially after using the toilet and before touching food. Proper technique is important! Rub your hands together with soap and water for 15-30 seconds (about the time it takes to sing “Happy Birthday” twice) before rinsing them off. Pay special attention to the fingernails, the skin between the fingers, the back of the thumbs, and the wrists.
- Do not share food or drink with anyone.
- Avoid using a shared kitchen if possible. Have roommates or household members prepare meals and bring them to you.
- Avoid sharing bathrooms if possible. Disinfect surfaces with a chlorine bleach cleaner.
- Wash dirty clothing, towels, and linens promptly.

CONSULT YOUR HEALTHCARE PROVIDER IMMEDIATELY IF YOU:
- Cannot keep liquids down for more than 24 hours.
- Have more than 6 stools/day.
- Have bloody diarrhea or emesis.
- Have severe abdominal pain.
- Have symptoms lasting more than 7 days.
- Have weight loss.
- Have signs of dehydration (dry mouth, no tears, less need to urinate, feeling faint, etc).
- Have traveled recently outside the country.
- Have used antibiotics recently.
- Are pregnant.
- Have a weak immune system (HIV, chemotherapy, uncontrolled diabetes, etc).