



Udai Pratap (Autonomous) College, Varanasi

E-learning Material

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Diarrhea :

Diarrhea is very common, happening in most people a few times each year. Diarrhea can range from a mild, temporary condition to a potentially life threatening one. Viruses, bacteria, and parasites are the most common causes of diarrhea.

Diarrhea — **loose, watery and possibly more-frequent bowel movements** is a common problem. It may be present alone or be associated with other symptoms, such as nausea, vomiting, abdominal pain or weight loss. Luckily, diarrhea is usually short-lived, lasting no more than a few days. The most common cause of diarrhea is a **virus that infects bowel** (“viral gastroenteritis”). The infection usually lasts a couple of days and is sometimes called “intestinal flu.” Other possible causes of diarrhea can include: Infection by bacteria.

Diarrhea can happen for a wide variety of reasons and it usually goes away on its own in one to three days. When we have diarrhea, we may need to quickly run to the bathroom with urgency and this may happen more frequently than normal. We may also **feel bloated, have lower abdominal cramping and sometimes experience nausea.**

Although most cases of diarrhea are self-limited (happening for a fixed amount of time and steady level of severity), sometimes diarrhea can lead to serious complications.

Diarrhea can cause dehydration (when our body loses large amounts of water), electrolyte imbalance (loss of sodium, potassium and magnesium that play a key role in vital bodily functions) and kidney failure (not enough blood/fluid is supplied to the kidneys). When we have diarrhea, we lose water and electrolytes along with stool. We need to drink plenty of fluids to replace what's lost. Dehydration can become serious if it fails to resolve (get better), worsens and is not addressed adequately.

The diarrhea may be of following types :

There are actually several different ways to classify diarrhea. These are of seven (7) types :-

- **Acute diarrhea:** The most common, acute diarrhea is loose watery diarrhea that lasts one to two days. This type doesn't need treatment and it usually goes away after a few days.
- **Osmotic diarrhea.** Water absorption in the intestines depends on the proper absorption of solutes, which is hindered if there are too many solutes in the intestinal lumen, which leads to diarrhea
- **Persistent diarrhea:** This type of diarrhea generally persists for several weeks – two to four weeks
- **Chronic diarrhea:** Diarrhea that lasts for more than four weeks or comes and goes regularly over a long period of time is called chronic diarrhea.
- **Secretory diarrhea.**
- **Inflammatory or infectious diarrhea**

- **Motility-related diarrhea.**

Causes of Diarrhea

Usually, diarrhea happens because of a virus that gets into our gut. Some people call it "intestinal flu" or "stomach flu."

Other causes include:

- Allergies to certain foods
- Diseases of the intestines (such as **Crohn's disease** or **ulcerative colitis**)
- Eating foods that upset the digestive system
- Infection by bacteria (the cause of most types of food poisoning) or other organisms
- Laxative abuse.
- Running (Some people get **"Runner's diarrhea"** for reasons that aren't clear.)
- Some cancers
- Surgery on your digestive system.
- Trouble absorbing certain nutrients, also called **"Malabsorption"**
- Infection by bacteria.
- Infections by other organisms and pre-formed toxins
- Eating foods that upset the digestive system.
- Allergies and intolerances to certain foods (**Celiac disease** or **lactose intolerance**).
- Medications.
- Radiation therapy.

Diarrhea may also follow constipation, especially for people who have **Irritable bowel syndrome** (IBS).

Symptoms of Diarrhea :

Most cases of diarrhea are nothing more than a brief inconvenience. But sometimes, they warn of a serious condition. In general, diarrhea is self-limited and goes away (resolves) without intervention. If your diarrhea fails to improve and resolve completely, you can be at risk of complications (dehydration, electrolyte imbalance, kidney failure and organ damage).

We may also observe following symptoms :

- Bloating in our belly
- Thin or loose stools

- Watery stools
- An urgent feeling that you need to have a bowel movement
- Blood or mucus in your stool
- Weight loss
- Dark urine and small amounts of urine or loss of urine production.
- Rapid heart rate.
- Headaches.
- Flushed, dry skin.
- Irritability and confusion.
- Light-headedness and dizziness.
- Severe nausea and vomiting, the inability to tolerate or keep anything down by mouth and throwing up.

Can antibiotics cause Diarrhea ?

Most antibiotics (**Clindamycin**, **Erythromycins** and broad spectrum antibiotics) can cause diarrhea. Antibiotics can change the balance of bacteria normally found in the intestines, allowing certain types of bacteria like *Clostridium difficile* to thrive. When this happens, your colon can become overrun by bad (pathologic) bacteria that causes colitis (inflammation of your colon lining).

Antibiotic-associated diarrhea can begin any time while we're taking the antibiotic or shortly thereafter. If we experience its side effect, call your Doctor to talk about the diarrhea and discuss the best option to relieve this side effect.

DIAGNOSIS AND TESTS :

The colour of our poop (stool) can vary. Stool colour can be influenced by the colour of the food you eat. Usually, this isn't something you need to worry about. But if you ever see red (blood) in your stool or have a bowel movement that is black, that could be something more serious. Keep a record of any bowel movements that:

- Are black and tarry.
- Have blood or pus in them.
- Are consistently greasy or oily despite non-fatty meals.
- Are very foul-smelling.

More serious cases of diarrhea may require medical attention. In these situations, there are a few diagnostic tests may be required. These tests can include:

- Discussing a detailed family history, as well as physical and medical conditions, your travel history, and any sick contacts you may have.
- Doing a stool test on a collected stool sample to check for blood, bacterial infections, parasite and inflammatory markers.
- Doing a **breath test to check for lactose or fructose intolerance**, and bacterial overgrowth.
- Doing blood work to rule out medical causes of diarrhea such as a thyroid disorder, celiac sprue and pancreatic disorders.
- Doing endoscopic evaluations of your upper and lower digestive tract to rule out organic abnormalities (ulcers, infections, neoplastic process).

When diarrhea lasts for a long period of time (several weeks), your Doctor will base your treatment on the cause. This could involve a few different treatment options, including:

- **Antibiotics:** Your Doctor might prescribe an antibiotic or other medication to treat an infection or parasite that's causing the diarrhea.
- **Medication for a specific condition:** Diarrhea can be a sign of several other medical conditions, including irritable bowel syndrome (IBS), inflammatory bowel disease (IBD) such as Crohn's disease and ulcerative colitis, microscopic colitis, or bacterial overgrowth. Once the cause of the diarrhea is identified, diarrhea can usually be managed.
- **Probiotics:** Groupings of good bacteria, probiotics are sometimes used to re-establish a healthy biome to combat diarrhea. Introducing probiotics can be helpful in some cases and some healthcare providers feel that it's worth a try. Always talk to your provider before starting a probiotic or any kind of supplement.

Prevention and Control :

When you have an acute case of diarrhea, you can often take care of it without needing any medication. Several things you can do to care for diarrhea include:

- Drinking plenty of water and other electrolyte balanced fluids (like diluted and pulp-free fruit juices, broths, sports drinks (Gatorade®) and caffeine-free sodas).

- Make sure to hydrate throughout day. Your body loses water each time you have diarrhea.
- By drinking plenty of extra fluids, you are protecting your body from dehydration.
- Changing your diet. Instead of picking greasy, fatty or fried foods, go for the **BRAT diet**:
 - ❖ **B** : Bananas.
 - ❖ **R** : Rice (white rice).
 - ❖ **A** : Applesauce.
 - ❖ **T** : Toast (white bread).

Also use following products :

- ❖ Potatoes.
 - ❖ Rice (white).
 - ❖ Noodles.
 - ❖ Bananas.
 - ❖ Applesauce.
 - ❖ White bread.
 - ❖ Chicken or turkey without the skin.
 - ❖ Lean ground beef.
 - ❖ Fish.
- Cutting back on caffeine. Foods and drinks that have caffeine can have a mild laxative effect, which can make your diarrhea worse. Foods and drinks with caffeine include coffee, diet sodas, strong tea/green tea, and even chocolate.
 - Avoiding foods and drinks that give you gas. If you experience cramping in your stomach with diarrhea, it could help to cut back on things that cause gas. These can include **Beans, Cabbage, Brussels sprouts, Beer and Carbonated beverages.**

Sometimes, diarrhea can also make you lactose intolerant. This is usually temporary and it means that you need to avoid items with lactose (dairy products) until your diarrhea is gone.

There are a few ways you can decrease your chances of having diarrhea, including:

- **Avoiding infections with good hygiene habits:** **Washing your hands** with soap and water after using the bathroom, as well as cooking, handling, and eating.
- **Getting your vaccinations:** **Rotavirus**, one of the causes of diarrhea, can be prevented with the rotavirus vaccine. This is given to infants in several stages during the first year of life.
- **Storing food properly:** By keeping your food stored at the right temperatures, not eating things that have gone bad, cooking food to the recommended temperature and handling all foods safely, you can prevent diarrhea.
- **Watching what you drink when you travel:** **Traveler's diarrhea** can happen when you drink water or other drinks that haven't been treated correctly.

To avoid getting diarrhea there are a few tips to follow.

- ❖ Watch what you drink.
- ❖ Don't drink tap water,
- ❖ Don not use ice cubes
- ❖ Brush your teeth with tap water,
- ❖ Consume unpasteurized milk, milk products .
- ❖ Unpasteurized juices.
- ❖ You should also be careful when trying local foods from street vendors,
- ❖ Avoid Eating raw or undercooked meats (and shellfish), as well as raw fruits and vegetables.
- ❖ When in doubt, drink bottled water or something that's been boiled first (coffee or tea).

Treatment of Diarrhea :

Antibiotics can only treat diarrhea due to bacterial infections. If the cause is a certain medication, switching to another drug might help. Always talk to a doctor before switching medications.

1. Nar-metrozeal
2. Norfrox
3. T-ZD

