

Diarrhoea in adults

The adult gastrointestinal tract is a tube approximately 15 ft long, running through the body from mouth to anus. Most food is taken into the mouth as large particles containing many macromolecules such as proteins, carbohydrates and fat. These macromolecules are unable to cross the wall of the gastrointestinal tract, they first need to be dissolved and broken down into much smaller molecules.

The dissolving and breaking-down process is called digestion. Digestion involves many different actions and is dependant on various other components e.g. acid secreted by the stomach, bile secreted by the liver and a variety of digestive enzymes that are released by the lining of the gastrointestinal tract.

Most of the absorption occurs in the 9 ft long small intestine. From the small intestine only a small volume of water, salt and undigested material is passed on to the large intestine (colon), which temporarily stores the undigested material and concentrates it by absorbing salt and water, before defecation takes place.

The average adult consumes about 800g of food and 1200 ml of water per day. An additional 7000 ml of fluid from salivary glands, stomach, pancreas, liver and the intestines is added and moves through the intestines. Theoretically only 100 - 200ml of water is lost in the feces per day, the rest is absorbed into the blood. This makes you wonder why and how diarrhea develops.

We all know what diarrhoea is, no major explanations are needed. The scientific definition is 'diarrhoea is an abnormal increase in the frequency and liquidity of the stools'.

Diarrhoea is not a disease, but it can be a symptom of several underlying diseases. The basic mechanism behind diarrhoea is if the intestinal lining becomes irritated, the intestines push stools through too quickly, fluid is not absorbed and the stool produced is watery. Diarrhoea is part of the body's own defence mechanism; it helps to rapidly expel dangerous particles from the digestive tract.

The main causes of diarrhoea can be summarised as follows:

Infectious diarrhoea (e.g. virus infection, bacteria, parasites):

Infectious diarrhoea is caused by ingesting microscopic viruses, bacteria or parasites, which then live in the intestine. The most common viral infection is known as rotavirus (children) and Norwalk (adults). The most common types of bacterial infection are Salmonella, campylobacter and shigella, which are all types of food poisoning.

Non-infectious diarrhoea (e.g. food, medications and disease)

Non-infectious diarrhoea does not involve any infection, but rather something specific, e.g. spicy food. Also, many people suffer from lactose intolerance, which will cause diarrhoea

General treatment of acute diarrhoea includes rest and increased fluid intake. Fluid and electrolyte replacement therapies can be used in severe cases, especially where the elderly and children are involved; they are the people who are at most risk of dehydration.

Persistent diarrhoea needs to be medically treated.

Here are a few tips that may help reduce symptoms of mild diarrhoea:

- Avoid solid food for a few hours, until you feel better;
- Avoid dehydration by taking frequent small sips of water or a rehydration drink;
- Avoid very hot or cold liquids;
- Avoid any alcohol;
- Make sure you wash your hands after using the toilet and before handling food;
- When diarrhoea starts to improve, you may want to start eating bland, mild foods such as rice, dry toast or banana. Avoid other fruits, spicy and fatty foods, alcohol and coffee until 48 hours after your symptoms have improved.

Most mild cases of diarrhoea don't require antibiotics or over-the-counter anti-diarrhoea products such as Imodium. These may slow the elimination of the infectious agents. Avoid these products at least for the first six hours.