

DIARRHEA

WHAT IS DIARRHEA?

Ordinarily the frequency and firmness of bowel movements in infants and children will vary depending on the age of the child and the type of diet – breast milk, formula or solids. Diarrhea can be defined as a deviation from the normal stool pattern, either as an increase in frequency, or an increase in looseness. Most consider the term diarrhea to mean watery or liquid stools.

WHAT CAUSES DIARRHEA?

Most cases of diarrhea are caused by viruses, the same type of germs that cause the common cold or the flu. The most common causes of diarrhea in children are rotavirus, norovirus and adenovirus. Most viral diarrheal illnesses tend to last between three and seven days. Unfortunately there is no medicine to treat a virus.

Occasionally, diarrhea may be caused by specific bacteria. This type is usually more severe, and may be associated with high fevers, stomach pain and blood or pus in the stool. Antibiotics are effective against this type of diarrhea, but a stool culture is necessary to identify the specific organism and choose the best medicine.

MEDICINES AND DIARRHEA

Most diarrheal illnesses in infants and children are self-limited and require no specific therapy. Diarrhea is the body's natural way of cleansing itself of the "toxins" caused by certain illnesses. Medicines which stop diarrhea may actually prolong the illness. In addition, they might be harmful to children – especially to those less than 2 years old. Medicines such as Imodium can make it such that the child is unable to pass the watery stools even though they are still losing fluids inside the body.

Antibiotics do not kill viruses, so they are of no help in treating most cases of diarrhea. However, if your child also has an ear infection or other illness that requires an antibiotic, one will be chosen that should not worsen the diarrhea.

GENERAL TREATMENT MEASURES

During a diarrheal illness, the lining of the gut becomes injured. With this microscopic damage, the first "casualty" is lactase – the enzyme that breaks down lactose (milk sugar). With a temporary inability to absorb lactose, the more milk products ingested, the more diarrhea. The more diarrhea, the more gut damage. The more gut damage, the more you cannot absorb

It is also recommended to avoid high sugar foods and drinks. This includes juices, sodas, Kool-Aids and most fruits. When a pile of sugar is placed near a puddle of water, somehow the water always finds its way over to the sugar. The same principle applies to treating diarrhea. The more sugar put into the gut, the more water it draws with it. This increases the amount of fluid in the intestines, resulting in more diarrhea. If you want a juice-like substance, you can use Pedialyte in infants and Gatorade in older children.

BRAT DIET

Bananas, Rice, Applesauce and Toast – This diet has been around for ages. Unfortunately, it was outdated 30 years ago! The BRAT diet is nothing but simple carbohydrates. It will not make diarrhea worse, but it contains limited nutrition to improve diarrhea. It is important to make sure the diet contains all nutrients – proteins, carbohydrates and fats to heal the injured gut tissue. At our office, we like to recommend what we refer to as the modified BRAT diet – cereals, vegetables and meats. We limit fruit to bananas and applesauce, and do our best to eliminate milk products and juices.

PROBIOTICS

The use of probiotics in diarrhea has not been well established. The theory of replacing the good bacteria has merit, but the science behind it is still lacking i.e. which strains of bacteria should I be replacing? One study showed that taking probiotics for acute viral diarrhea reduced the length of illness by one day on average. When the term probiotic is used, most people think of yogurt. First of all, yogurt contains a minimal amount of probiotics and secondly, it is milk based (think lactose) and will potentially worsen the diarrhea.

There is no harm if you would like to try a probiotic. There are many brands available. Options that we recommend are:

1. Jarrow – saccharomyces boulardii + MOS
2. Nature's Way – primidophilus
3. Culturelle
4. Solaray – microbiome probiotic
5. VSL #3

SPECIFIC TREATMENT MEASURES

Unlike vomiting that you starve (or it comes back up), it is important to feed diarrhea. The more nutrition put into the gut, the quicker the recovery time. The major stimulus for repair is the presence of food within the gut. Depriving an injured intestine of food will only delay the healing time.

1. **Infants – Breast Feeding:** Continue to breast feed through the diarrhea. As long as your infant is still breastfeeding well (i.e. good oral intake), he/she will not dehydrate due to diarrhea.
2. **Infants – Conventional Formula:** If your infant is on a milk based formula i.e. Similac, Enfamil or Good Start, you will want to change to a formula that does not contain lactose such as Soy formula or one of the formulas that is labelled “Sensitive.” When the stool returns to normal, you can switch back to your original formula.
3. **Infants – Solids also:** Follow the guide for the type of breast/formula. You may continue to give any cereal, vegetables and meats that you have already started. Fruits should be limited to bananas and applesauce. Do not start any new foods during a diarrheal illness.
4. **Older Children:** Stop all milk products, juices, sodas and Kool-Aids. You may give soy milk, Pedialyte, Gatorade and unsweetened decaffeinated tea to drink. You should also continue with a full solid diet consisting on cereals, vegetables, meats while limiting fruits to bananas and applesauce.