

# DIARRHEA (VIRAL GASTROENTERITIS)

## DEFINITION

Diarrhea is the sudden increase in the frequency and looseness of bowel movements. Mild diarrhea is the passage of a few loose or mushy stools. Moderate diarrhea gives many watery stools. The best indicator of the severity of the diarrhea is its frequency. A green stool also points to very rapid passage and moderate to severe diarrhea.

The main complication of diarrhea is dehydration from excessive loss of body fluids. Symptoms are a dry mouth, the absence of tears, a reduction in urine production (e.g., none in 8 hours), and a darker, concentrated urine. It's dehydration you need to worry about, not the presence of diarrhea.

## Cause

Diarrhea is usually caused by a viral infection of the intestines (gastroenteritis). Occasionally it is caused by bacteria or parasites. Diarrhea can be due to excessive fruit juice or to a food allergy. If only one or two loose stools are passed, the cause was probably something unusual your child ate.

## Expected Course

Diarrhea usually lasts from several days to a week, regardless of the treatment. The main goal of therapy is to prevent dehydration by giving enough oral fluids to keep up with the fluids lost in the diarrhea. Don't expect a quick return to solid stools. Since one loose stool can mean nothing, don't start dietary changes until there have been at least two.

## HOME CARE: DIET

Dietary changes are the mainstay of home treatment for diarrhea. The optimal diet depends on your child's age and the severity of the diarrhea. Go directly to the part that pertains to your child.

### Special Diets for Diarrhea

#### Mild Diarrhea and Child of Any Age

- Continue a regular diet with a few simple changes.
- Continue full-strength formula or milk. Encourage an increased intake of these fluids and extra water.
- Reduce the intake of fruit juices. If given, make them half strength with water.
- Avoid raw fruits and vegetables, beans, spicy foods, and any foods that cause loose stools.

#### Bottle-Fed Infants and Frequent, Watery Diarrhea

**Oral Rehydration Solutions (ORS) for 6 to 24 Hours.** Children with severe diarrhea need ORS to prevent dehydration. Examples are Infalyte, Kao-Lectrolyte, or Pedialyte. These over-the-counter products are available in all pharmacies or supermarkets. (ORS is not needed for diarrhea unless it's severe.) If your child doesn't like the flavor, add a bit of Kool-Aid

powder. Give as much ORS as your baby wants. Diarrhea makes children thirsty, and your job is to satisfy that thirst and prevent dehydration. Never restrict fluids when your child has diarrhea.

Until you get one of these special solutions, continue giving your baby full-strength formula in unlimited amounts. (Avoid giving your baby Jell-O water mixtures or sports drinks. Reason: inadequate sodium content.)

If you can't get an ORS, ask your doctor about making a homemade ORS as follows: Mix  $\frac{1}{2}$  cup of dry infant rice cereal with 2 cups (16 ounces) of water and  $\frac{1}{4}$  level teaspoon of salt. Be careful not to add too much salt. (Reason: risk of salt poisoning.)

Continue giving your baby ORS for at least 6 hours. Between 6 and 24 hours, switch back to formula when your baby becomes hungry, the diarrhea becomes less watery, and the child is making lots of urine.

**Returning to Formula.** After being given ORS for 6 to 24 hours, your baby will be hungry, so begin her regular formula. If the diarrhea continues to be severe, begin with a soy formula. If you give cow's milk formula and the diarrhea doesn't improve after 3 days, change to a lactose-free formula (milk-based lactose-free or a soy formula). Often there is less diarrhea with soy formulas than with cow's milk formulas because the soy formulas don't contain milk sugar (lactose). If you start giving soy formula, plan to keep your baby on the soy formula until the diarrhea is gone for 3 days.

If your baby's bowel movements are very watery, mix the formula with 1 or 2 ounces of extra water per bottle for 24 hours. Then after 24 hours go back to full-strength formula.

**Adding Solids.** Foods that contain a lot of starch are more easily digested than other foods during diarrhea. If your baby is over 4 months old, has had diarrhea for over 24 hours, and wants to eat solid food, give her the following starchy foods until the diarrhea is gone: any cereal, mashed potatoes, apple-sauce, strained bananas, strained carrots, and other high-fiber foods.

#### Breast-Fed Infants and Frequent, Watery Diarrhea

**Definition of Diarrhea.** No matter how it looks, the stool of the breast-fed infant must be considered normal unless it contains mucus or blood or develops a bad odor. In fact, breast-fed babies can normally pass some green stools or stools with a water ring around them. Frequency of movements is also not much help. As previously stated, during the first 2 or 3 months of life, the breast-fed baby may normally have as many stools as one after each feeding. The presence of something in the mother's diet that causes rapid passage should always be considered in these babies (e.g., coffee, cola, or herbal teas). Diarrhea can be diagnosed if your baby's stools abruptly increase in number. Additional clues are if your baby feeds poorly, acts sick, or develops a fever.



### **Treatment**

- Continue breast-feeding, but at more frequent intervals. Breast-feeding should never be discontinued because of diarrhea.
- If urine production is decreased, offer ORS between breast-feedings for 6 to 24 hours.

### **Older Children (over 1 Year Old) and Frequent, Watery Diarrhea**

- The choice of solids is the key factor—starchy foods are absorbed best. Give cereals (especially rice cereal), oatmeal, bread, noodles, mashed potatoes, carrots, applesauce, strained bananas, etc. Pretzels or salty crackers can help meet your child's sodium needs.
- For fluids, use water (if solids are being consumed) or half-strength Kool-Aid. If solids are not being consumed, offer ORS. Encourage a high fluid intake.
- Avoid all fruit juice or other drinks containing fructose because they usually make diarrhea worse.
- Avoid milk for 2 or 3 days. (Reason: lactose is not as easily absorbed as complex carbohydrates.) Active culture yogurt is fine.
- ORS is rarely needed, unless diarrhea is very watery and urine production is decreased.

### **HOME CARE: OTHER ASPECTS**

**Common Mistakes.** Using boiled skim milk or any concentrated solution can cause serious complications for babies with diarrhea because they contain too much salt. Kool-Aid and soda pop should not be used as the only foods because they contain little or no salt. Use only the fluids mentioned. Clear fluids alone should only be used for 6 to 24 hours because the body needs more calories than they can provide. Likewise, a diluted formula should not be used for more than 24 hours. The most dangerous myth is that the intestine should be "put to rest"; restricting fluids can cause dehydration. Keep in mind that there is no effective, safe drug for diarrhea and that extra water and diet therapy work best.

**Prevention.** Diarrhea is very contagious. Hand

washing after diaper changing or using the toilet is crucial for keeping everyone in the family from getting diarrhea.

**Diaper Rash from Diarrhea.** The skin near your baby's anus can become "burned" from the diarrhea stools. Wash it off after each bowel movement and then protect it with a thick layer of petroleum jelly or other ointment. This protection is especially needed during the night and during naps. Changing the diaper quickly after bowel movements also helps.

**Overflow Diarrhea in a Child Not Toilet Trained.** For children in diapers, diarrhea can be a mess. Place a cotton washcloth inside the diaper to trap some of the more watery stool. Use disposable superabsorbent diapers temporarily to cut down on cleanup time. Use the ones with snug leg bands or cover the others with a pair of plastic pants. Wash your child under running water in the bathtub. Someday she will be toilet trained.



### **CALL OUR OFFICE**

#### **IMMEDIATELY if**

- Any blood appears in the diarrhea.
- Signs of dehydration occur (no urine in more than 8 hours, very dry mouth, no tears).
- Your child has severe diarrhea (more than eight bowel movements in the last 8 hours).
- The diarrhea is watery *and* your child also vomits the clear fluids three or more times.
- Your child starts acting very sick.

**Note:** If your child has vomited more than once, treatment of the vomiting has priority over the treatment of diarrhea until your child has gone 8 hours without vomiting.

#### **During regular hours if**

- A fever lasts more than 3 days.
- Mild diarrhea lasts more than 2 weeks.
- You have other concerns or questions.