



## Vomiting and Diarrhea (Gastroenteritis)

### The Cause

The most common cause of vomiting (throwing up) and diarrhea (frequent watery bowel movements) are intestinal infections (“gastroenteritis”) caused by viruses. Bacterial infections are much less common. We usually get these infections from other people, but they can be acquired by eating spoiled or contaminated food. Vomiting and diarrhea are the body’s way of getting rid of the germs until immunity can be built up.

### Are These Infections Serious?

Gastroenteritis can be serious when there is excessive loss of body fluids, or dehydration. Dehydration is more of a risk in the following situations: infants less than 6 months of age, severe vomiting or diarrhea, fever. Dehydration, when severe, can be life-threatening; when it is milder, it can cause us to feel tired and lightheaded.

### The Expected Course

Vomiting may occur frequently at first but usually subsides in 6-24 hours. Diarrhea often lasts up to a week or so, regardless of treatment. These infections are frequently accompanied by fever, nausea and crampy abdominal/belly pain (caused by intestinal spasms).

### Medications for Treatment

Because these infections are caused by viruses, there is no specific treatment available. Even for those infections caused by bacteria, antibiotics are not necessary and can cause harm except in special circumstances. The most important aspects of treatment are the replacement of fluids and early return to solid foods.

Use Tylenol® for fever or aches. For nausea, over-the-counter (OTC) medicines for nausea do not work well; prescription ones are usually not necessary. Imodium AD® (OTC) is acceptable for adults to use for severe diarrhea but should not be used in the presence of abdominal pain or blood in the stool or vomiting. It should not be used in children unless advised to do so.

### Dietary Treatment

**Vomiting in formula-fed babies and children less than 2 years old** – If there has only been one episode, offer half-strength formula. If vomiting continues, give “Oral Rehydration Solution” (ORS) such as Pedialyte®. If your child won’t take this, try the flavored versions or freezing it into ice-pops. You can make your own—see recipe below. Give small amounts (1 tsp. – 1 Tbsp.) every 5-10 minutes while awake. After 4 hours without vomiting, slowly increase the amount. After 8 hours without vomiting, change to follow-up diet (see below), continuing extra fluids until all symptoms are gone.

**Breast-fed infants** – Continue breast feeding, but reduce the amount per feeding. If the baby vomits twice, nurse on only one side every 1-2 hours. If vomiting continues, nurse for 4-5 minutes every 30-60 minutes. Return to normal feeding after 8 hours without vomiting.

**Vomiting in older children and adults** – Give clear liquids such as water, ice chips, soda (stir the bubbles out first), popsicles, soup broth, jello, or oral rehydration solution (see recipe). Use only a small amount of sports drinks like Gatorade, fruit juices or sodas with caffeine. Use small amounts (1 Tbsp.) every 5-10 minutes while awake. Bland foods such as crackers or toast may be given, but only a bite or two at a time. The idea is to take in such small amounts that the stomach does not know anything is in there to vomit. After 4 hours without vomiting, increase the amount. After 8 hours without vomiting, advance to the follow-up diet (see below).





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#### **Diarrhea Alone**

If mild, no dietary changes are needed. If there is any suspicion of dehydration (for example, increased thirst or other signs – see below), give ORS (less than 2 years old) or clear fluids according to the guidelines above. Solid foods according to the follow-up diet (see below) may be given. Solid foods should not be delayed more than 24 hours; small amounts are okay if not hungry. Continue increased fluids until symptoms are gone. Remember, do not stop food or fluids thinking you can prevent diarrhea. Diarrhea usually lasts about a week. Following these dietary changes will not shorten the length of the illness, but they are meant to prevent dehydration or serious consequences while the body is recovering.

#### **Follow-up Diet**

Eat foods high in complex carbohydrates (bread, toast, noodles, potatoes, crackers, rice), lean meats, yogurt, fruits and vegetables. Children usually tolerate milk and can restart now. However, soy formula is not tolerated as well as breast milk or cow's milk formula, so consider delaying return to soy formula. Adults may want to wait to restart dairy products. Avoid caffeine, fatty foods, spicy foods and foods high in simple sugars (including sweetened tea, juices) for a few days to a week.

#### **Probiotics**

Probiotics are products that contain healthy bacteria to restore the balance in the intestines. They have been shown to improve recovery from intestinal infections. They are available in pill form or as yogurts (e.g. Activia®, etc.) Check with your pharmacist for more information.

#### **When to Call Us**

- Your baby is less than 1 month old
- Vomiting longer than 12 hours (under 6 months old)  
24 hours (6 mo. or older)
- Signs of dehydration:
  - crying produces no tears (except in children less than 1 month old, who don't make tears yet)
  - no urination in more than 8 hours
  - dry mouth
  - sunken eyes
- Extreme irritability
- Extreme listlessness
- Continuous abdominal pain longer than 2 hours
- Abdominal bloating
- Blood in stool or vomitus
- Bile in vomitus (bright yellow-green)
- Stiff neck
- Looks or acts very sick

#### **Prevention of Spread**

The most important way to reduce the spread of these germs is by good handwashing after using the bathroom or changing a diaper. Wash hands before cooking or eating. Teach your children to be good hand-washers, too.

#### **Oral Rehydration Solution**

There are commercially available solutions for children such as Pedialyte®. You can also make your own by mixing the following:

- 1 liter/quart of purified water (4-5 cups)
- ½ to 1 teaspoon of table salt
- ½ teaspoon of baking soda
- 8 teaspoons of sugar or 2 teaspoons of Karo® syrup
- ¼ teaspoon of salt substitute (provides potassium)

#### **Further Information**

On ORS: <http://www.pamf.org/patients/ors.html>  
<http://rehydrate.org/solutions/homemade.htm>

