



**KAISER PERMANENTE®**

## **Vomiting, Diarrhea, and Dehydration in Children**

Diarrhea and vomiting in children may be caused by a virus in the intestine, by eating unusual foods, or by eating or drinking too much. An infant's developing digestive system, in particular, sometimes won't tolerate large amounts of juice, fruit, or milk.

When infants and children under the age of four have diarrhea or vomit, it's important to watch for signs of dehydration. This is especially true for those younger than six months old. When too much fluid is lost through diarrhea or vomiting, the circulation of blood in the body becomes inadequate. This is very dangerous and needs prompt medical attention.

Signs of dehydration include dry mouth and sticky saliva; reduced urine output with dark yellow urine; sunken eyes; extreme thirst; pale, mottled skin; and crying without tears.

In many cases, the intestinal infections that cause diarrhea and vomiting can be prevented. Since the virus or other infectious agent causing the problem is typically swallowed by the child, you'll want to be careful about keeping food sources as clean as possible. For example, be sure that your child's milk is prepared with clean bottles and nipples. Once a bottle of milk has been prepared, do not attempt to use it for more than an hour, since germs can grow in it quickly and become a source of infection. If you are traveling with your baby, consider taking formula powder and mixing it with water in the bottle when needed. Another option would be to take sterile, ready-to-feed bottles, and open them only as needed. Also, try to be careful about what your baby puts in his or her mouth.

Breastfeeding is also a very good way to protect your baby against certain viruses and intestinal infections. There is very good research evidence that breastfed babies are much less likely to develop diarrhea and other infections.

If your child is between three months and two years old and develops vomiting or diarrhea, continue breastfeeding but supplement your feedings with an oral rehydration drink such as Pedialyte or Ricelyte. If your baby is fed with formula, stop the formula for 24 hours and replace it with an oral rehydration drink. Then gradually add back the formula feedings. Sometimes soy formulas are tolerated and digested better than regular formula for the first few days. You should not use rehydration drinks as the only source of fluid for more than 12 to 24 hours at a stretch. If your child eats solid foods, introduce these after 12 to 24 hours. However, avoid high-fiber foods, such as beans, and foods and drinks with lots of sugar, such as ice cream and sodas. Apple juice has been shown to aggravate diarrhea, and should be avoided.

If your child is two years or older and develops diarrhea, give him or her between a half and a

whole cup of an oral rehydration drink such as Pedialyte every hour, unless he or she is also vomiting. Do not give fruit juice or soda, but do offer easily digestible low-fat foods, such as toast or soda crackers, along with the rehydration drink. After a day or so, resume a regular diet. Again, don't use a rehydration drink as a sole source of fluids and nutrients for more than 24 hours.

Call your health care professional if your child has any of the following ten symptoms:

- 1.) if the diarrhea is bloody, tarry, or dark red;
- 2.) if the urine is bloody or cola-colored;
- 3.) if blood is vomited;
- 4.) if vomiting is accompanied by severe headache, sleepiness, lethargy, or a stiff neck;
- 5.) if you see signs of dehydration;
- 6.) if a child with diarrhea or vomiting refuses to drink;
- 7.) if vomiting lasts longer than two to four hours in a child younger than six months or longer than one day in a child under age four;
- 8.) if more than mild diarrhea lasts longer than 12 to 24 hours in a child under six months or longer than one to two days in a child under age four;
- 9.) if the child has a fever of 103 degrees or higher, or a lower fever with diarrhea for more than two days;
- 10.) if the child has severe or persistent stomach pain.



For additional health information you can trust:

- Log on to our members-only Web site at [www.kaiserpermanente.org/california](http://www.kaiserpermanente.org/california), then click the "Kaiser Permanente Members Only" button
- Visit your local Kaiser Permanente Health Education Center
- Check your Kaiser Permanente Healthwise Handbook
- Listen to the Kaiser Permanente Healthphone messages at 1-800-33 ASK ME (1-800-332-7563)

To get your free Handbook and Healthphone Directory, call 1-800-464-4000.

<p>The information presented here is not intended to diagnose health problems or to take the place of professional medical care. If you have persistent health problems or if you have additional questions, please consult with your doctor or other health care professional.</p>
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