Vomiting With Diarrhea
Pediatric Office-Hours Version

DEFINITION

- Vomiting and diarrhea occurring together is covered by this protocol (EXCEPTION: if vomiting is resolved, use the Diarrhea protocol)
- Vomiting is the forceful emptying (throwing up) of a large portion of the stomach's contents. Nausea and abdominal discomfort usually precede each bout of vomiting.
- Diarrhea means 2 or more watery or very loose stools (Reason: 1 loose stool can be normal with changes in diet)

TRIAGE ASSESSMENT QUESTIONS FOR VOMITING WITH DIARRHEA

Call EMS 911 Now

Signs of shock (very weak, limp, not moving, unresponsive, gray skin, etc)
First Aid: Lie down with the feet elevated.

Difficult to awaken
R/O: encephalitis, intussusception, overdose

Confused when awake
R/O: meningitis, encephalitis

Sounds like a life-threatening emergency to the triager

See More Appropriate Protocol

Vomiting occurs without diarrhea
Go to Protocol: Vomiting Without Diarrhea (Pediatric)

Diarrhea is the main symptom (vomiting is resolved)
Go to Protocol: Diarrhea (Pediatric)

Go to ED Now

Newborn < 4 weeks with fever 100.4° F (38.0° C) or higher rectally
R/O: sepsis

Go to ED Now (or to Office with PCP Approval)

Age 4 - 12 weeks with fever 100.4° F (38.0° C) or higher rectally
R/O: sepsis

Blood (red or coffee-ground color) in the vomit that's not from a nosebleed
R/O: peptic ulcer, esophagitis, Mallory-Weiss tear

Appendicitis suspected (e.g., constant pain > 2 hours, RLQ location, walks bent over holding abdomen, jumping makes pain worse, etc)

Could be poisoning with a plant, medicine, or other chemical

High-risk child (e.g. diabetes mellitus, recent abdominal surgery)
Fever and weak immune system (sickle cell disease, HIV, chemotherapy, organ transplant, chronic steroids, etc)

Recent hospitalization and child not improved or worse

Child sounds very sick or weak to the triager
Reason: severe acute illness or serious complication suspected

Go to Office Now

Blood in the diarrhea
R/O: severe Shigella, Salmonella, Campylobacter or E. coli 0157

Signs of dehydration (e.g., very dry mouth, no tears and no urine in > 8 hours)

Bile (green color) in the vomit (EXCEPTION: stomach juice which is yellow)
R/O: GI obstruction, necrotizing enterocolitis

Continuous abdominal pain or crying for > 2 hours (esp. if the abdomen is swollen)
R/O: GI obstruction due to intussusception, volvulus, etc. (Caution: intermittent abdominal pain that comes on with vomiting and then goes away is common)

Age < 12 weeks with vomiting 2 or more times today (Exception: just spitting up or reflux)
R/O: GI obstruction, pyloric stenosis

Age < 12 months who has vomited ORS 3 or more times today and also has watery diarrhea

Receiving ORS and vomits everything > 8 hours

Fever > 105° F (40.6° C)
R/O: serious bacterial infection

See Today in Office

Fever present > 3 days

Fever returns after going away > 24 hours
R/O: UTI, strep pharyngitis, sinusitis

Caller wants child seen

See Today or Tomorrow in Office

Age < 1 year and moderate vomiting (3 or more times per day) present > 24 hours

Age > 1 year and moderate vomiting (3 or more times per day) present > 48 hours

Callback by PCP Today

Vomiting an essential medicine (e.g., seizure medications)

Taking any medicine that could cause vomiting (e.g., erythromycin, tetracycline, codeine)
Note: may be able to manage by phone by making some changes (e.g., checking dosage, skipping 1 dose to allow irritated stomach to heal and giving medicine after meals or snack)

See Within 3 Days in Office
Mild vomiting (1-2 times per day) with diarrhea persists > 1 week

Home Care
Mild-moderate vomiting with diarrhea (probably viral gastroenteritis)

HOME CARE ADVICE FOR VOMITING WITH DIARRHEA

1. **Reassurance:**
   - Most vomiting with diarrhea is caused by a viral infection of the stomach and intestines or by mild food poisoning.
   - Vomiting is the body's way of protecting the lower GI tract.
   - When vomiting and diarrhea occur together, treat the vomiting. Don't do anything special for the diarrhea.

2. **For Bottlefed Infants Offer Oral Rehydration Solution (ORS) for 8 Hours:**
   - ORS (e.g., Pedialyte or the store brand) is a special electrolyte solution that can prevent dehydration. It's readily available in supermarkets and drug stores.
   - For vomiting once, continue regular formula.
   - For vomiting more than once, offer ORS for 8 hours.
   - Spoon or syringe feed small amounts of ORS: 1-2 teaspoons (5-10 ml) every 5 minutes.
   - After 4 hours without vomiting, double the amount.
   - **Formula:** After 8 hours without vomiting, return to regular formula.
   - **Solids:** For infants over 4 months old, also return to baby foods, especially cereals.
   - Return to normal diet in 24-48 hours.

3. **For Breastfed Infants, Reduce the Amount Per Feeding:**
   - If vomits once, nurse 1 side every 1 to 2 hours.
   - If vomits more than once, nurse for 5 minutes every 30 to 60 minutes.
   - After 4 hours without vomiting, return to regular breastfeeding.
   - If continues to vomit, switch to ORS for 4 hours.
   - Spoon or syringe feed small amounts of ORS: 1-2 teaspoons (5-10 ml) every 5 minutes.
   - After 4 hours without vomiting, return to regular breastfeeding. Start with small feedings of 5 minutes every 30 minutes and increase as tolerated.

4. **For Older Children (over 1 Year Old) Offer Small Amounts of Clear Fluids For 8 Hours:**
   - ORS: Vomiting with watery diarrhea needs ORS. If refuses ORS, use ½ strength Gatorade.
   - Give small amounts: 2-3 teaspoons (10-15 ml) every 5 minutes.
   - After 4 hours without vomiting, increase the amount.
   - After 8 hours without vomiting, return to regular fluids. (Exception: Don't use fruit juice and soft drinks).
   - **Solids:** After 8 hours without vomiting, add solids:
     - Limit solids to bland foods.
     - Starchy foods are easiest to digest.
     - Start with crackers, bread, cereals, rice, mashed potatoes, noodles, etc.
     - Return to normal diet in 24-48 hours.

5. **Avoid Medicines:**
   - Discontinue all nonessential medicines for 8 hours (reason: usually make vomiting worse).
   - **Fever:** Fevers usually don't need any medicine. For higher fevers, consider acetaminophen (Tylenol) suppositories. Never give oral ibuprofen; it is a stomach irritant.
   - **Call Back If:** vomiting an essential medicine.
6.] **Sleep:**
- Help your child go to sleep for a few hours (Reason: Sleep often empties the stomach and relieves the need to vomit).
- Your child doesn't have to drink anything if he feels very nauseated.
- If your child is also having watery diarrhea, awaken after 3 hours for ORS, if she doesn't self-awaken.
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7.] **For Severe or Continuous Vomiting, but Well-Hydrated:**
- Sometimes children vomit almost everything for 3 or 4 hours, even if given small amounts.
- However, some fluid is being absorbed and this will help prevent dehydration.
- From what you've told me, your child is well hydrated at this time. So continue offering clear fluids (Avoid: NPO).

8.] **Contagiousness:** Your child can return to day care or school after vomiting and fever are gone.

9.] **Expected Course:**
- Moderate vomiting usually stops in 12 to 24 hours.
- Mild vomiting (1-2 times/day) with diarrhea can continue intermittently for up to a week.

10.] **Call Back If:**
- Vomiting becomes severe (vomits everything) over 8 hours
- Vomiting persists over 24 hours
- Signs of dehydration
- Diarrhea becomes severe
- Your child becomes worse

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**FIRST AID**

N/A

**BACKGROUND INFORMATION**

**Vomiting Severity Defined**

The following is an arbitrary attempt to classify vomiting by risk for dehydration:

- **MILD:** 1 - 2 times/day
- **MODERATE:** 3 - 7 times/day
- **SEVERE:** Vomits 8 or more times per day; vomits everything or nearly everything
- Caution: Multiple stomach contractions (heaves) do not count as separate episodes of vomiting. At least 10 minutes need to pass, before we consider it another episode of vomiting.
- Severity relates even more to the length of time that the particular level of vomiting has persisted.
- At the beginning of a vomiting illness (especially following food poisoning), it's common for a child to vomit everything for 3 or 4 hours and then become stable with mild or moderate vomiting.
- Watery stools in combination with vomiting carry the greatest risk for causing dehydration.
- The younger the child, the greater the risk for dehydration.

**Diarrhea Severity Defined**

- **MILD:** 2-5 watery stools/day
- **MODERATE:** 6-10 watery stools/day
- **SEVERE:** Over 10 watery stools/day
- The main risk of diarrhea is dehydration.
- Loose or runny stools do not cause dehydration.
- Frequent, watery stools can cause dehydration.
Causes

- Main cause: Stomach and intestinal infection (gastroenteritis) from a virus (e.g., Rotavirus). The illness starts with vomiting but diarrhea usually follows within 12-24 hours.
- Food poisoning from toxins produced by bacteria growing in poorly refrigerated foods (e.g., Staphylococcus toxin in egg salad or Bacillus cereus toxin in rice dishes).

Vomiting: Most Frequent Pediatric Call

- Every year, vomiting comes in first in call frequency. This can be explained by the following:
  - Before vomiting, children are apprehensive and unable to participate in any normal activities.
  - During vomiting, children are miserable.
  - Parents remember how badly vomiting has made them feel in the past.
  - Parents often hope there is a medicine to stop the vomiting. Unfortunately, there is no OTC medicine for home treatment. Zofran (ondansetron) can be prescribed for children with severe vomiting, but only after they have been seen.
  - All parents want to be sure they are treating the vomiting correctly. Hence, the importance of providing helpful, detailed care advice.

Giving Fluids Versus Nothing Per Mouth (NPO) for Vomiting with Diarrhea

The reason that this guideline instructs callers not to use NPO for children who have vomiting with diarrhea is being NPO can contribute to dehydration. In addition, during the brief time that fluid is retained in the stomach, some of it is absorbed and this can help prevent dehydration. The literature demonstrates that we can feed most children through a vomiting with diarrhea illness.

Return to School

- Your child can return to day care or school after vomiting and fever are gone.

Expert Reviewers

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REFERENCES


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