

Vomiting.

Hilliard Pediatrics, Inc. -- Dr. Tim Teller, M.D. -- 7/14

Introduction.

Vomiting is the forceful bringing-up of what is in the stomach out through the mouth. Vomiting can be a benign one-time episode after gagging to a much more serious sign of illness. The information below is to help you decide the treatment for your child who is vomiting.

Causes of vomiting.

Gagging, choking, or over-feeding can cause vomiting. If they do, it is often obvious from the situation. The child will often be acting normally before and almost immediately afterwards. There should be no or minimal stomach pain with this.

The stomach flu (viral gastroenteritis) often causes vomiting as well as diarrhea. The vomiting during the stomach flu can be just once or twice during the illness to multiple episodes of vomiting in an hour that goes on intermittently for a few days. The most common virus to cause the stomach flu is actually not “the flu virus” (influenza), but is **rotavirus**. This virus is sometimes called “the Winter Vomiting Virus” as it typically starts 1-2 days after being exposed to the virus during the Winter or early Spring and has 1-3 days of frequent vomiting followed by a few days to a week of diarrhea. There are many other viruses that cause stomach flu symptoms that occur throughout the year. Many of these viruses that cause vomiting, including rotavirus, cause a fever for a few days. The stomach pain that happens with the stomach flu often gets better after someone throws up. All of these viruses are very contagious.

Strep throat and viral sore throats can cause vomiting. If a child has sudden onset of sore throat, headache, fever, swollen glands, and nausea and vomiting, we would suspect the cause of the sore throat (a virus or Strep) is causing the vomiting.

Medications can cause vomiting. These episodes often closely follow the taking of the medicine, and this close timing is how we determine if the medicine is causing the vomiting. Sometimes the reason for taking the medicine (Strep throat or another infection) is already irritating the stomach. Two common medicines that cause nausea or vomiting are fever-reducers and antibiotics.

Bladder infections and other urinary tract infections can cause vomiting. Typical signs would be pain with urination and frequent urination. There may be back or side pain and fever. Vomiting with a bladder infection would more commonly occur with a young child. Bladder infections are much more common in females.

Appendicitis causes vomiting. Typical symptoms for appendicitis include low-grade fever, nausea and vomiting, not wanting to eat, and crampy belly pain around the belly button that moves down to the lower right side of the abdomen. Children with appendicitis normally are not at all comfortable moving around. The pain is often severe enough to cause someone to be doubled-over. Appendicitis in children usually occurs over 2 years of age and is most common during the pre-teen and teen years. Appendicitis is a medical emergency.

Reflux (gastroesophageal reflux) is most common during infancy, but some older children have reflux with vomiting. Reflux can cause effortless spitting to forceful vomiting. Children with reflux may have vague abdominal pain and vomit after eating. Spicy and acidic foods would likely make the vomiting worse.

Concussions can cause vomiting. Often with a concussion, there is a very specific history of a head injury followed by a combination of some of the following: vomiting 2 or more times, loss or change in consciousness, and headache. Concussions are a medical emergency.

Obstruction or blockage of the gastrointestinal tract causes vomiting. If there is significant belly pain, bloating and distention of the abdomen, and forceful vomiting, a blockage may be causing the vomiting. A blockage of the small intestine will often cause the vomit to include **bile**, which is a golden brown to greenish yellow color. One form of this blockage is **intussusception** where the child has intermittent belly pain and lethargy, vomiting, and blood and mucous in the bowel movements. Obstruction or blockage of the gastrointestinal tract is a medical emergency.

Treatment of vomiting.

We do *not* routinely recommend the over-the-counter medications that reportedly help nausea or vomiting as they are not both safe and effective.

The stomach flu will generally be treated by changing the diet (what someone eats and drinks) and treating any fever that occurs during the illness. Antibiotics will not help these viral illnesses. Children with vomiting from a stomach virus will no longer be contagious when their symptoms of vomiting and diarrhea are gone. See below for instructions about changing a child's diet to help with the vomiting.

Strep throat is treated with antibiotics. There is generally a quick response to the antibiotics, with someone feeling better in 1-2 days. They are no longer contagious after being on the antibiotics for 24 hours. Viral sore throats do not respond to antibiotics and run their course while treating the symptoms of sore throat (please see the Sore Throat protocol). A viral sore throat is no longer contagious when the symptoms are gone, especially the fever and sore throat.

Vomiting caused by **medications** often is prevented by offering the child something bland to eat and coat their stomach before they take the medicine. This could include milk, non-citrus juice, bread, or crackers.

Bladder infections are treated with antibiotics. Children with symptoms of a bladder infection should be seen for an appointment to confirm they have a bladder infection and receive a prescription for the antibiotic. Once the antibiotic is begun, the vomiting will typically stop quickly (within a day or two).

Reflux may require changing how and what a child eats as well as medication. Call during regular office hours to discuss treatment with us. Many of these children will benefit from an appointment to discuss their symptoms.

Appendicitis, concussions, and obstruction of the gastrointestinal tract are medical emergencies. A child with symptoms of these conditions needs to be evaluated right away, night or day. We will often promptly refer a child that we suspect has one of these conditions to Nationwide Children's Hospital Emergency Department for further evaluation and treatment. Note that an Urgent Care is not the right place for children with symptoms of these conditions.

Dehydration.

Dehydration is when we do not have enough fluids in our system. Dehydration can occur with repeated vomiting. How likely it is to occur depends on a lot of things, including how frequent the vomiting occurs, how well someone is holding down something to drink, and whether diarrhea and fever are making the matter worse. One of the goals of treating vomiting is to prevent dehydration. We are concerned that a child is dehydrated if they have **not urinated** (or had a wet diaper) in **8 or more hours**, have made **urine less than 3 times in 24 hours**, have a **dry mouth** (sometimes called "cotton mouth"), make **no tears** when they cry, and act **lethargic** (like a limp rag doll; this is different from "listless" which means less active and laying around but will be up and around on occasion). Note that if a child is drinking well after recent vomiting, is not acting lethargic, but has not urinated in the last 8 to 10 hours, it is safe to see if their drinking will allow them to make urine in the next couple hours.

Treating Vomiting With Diet Changes.

Vomiting and the illnesses that cause it aggravate our stomach. This makes it difficult for a child with vomiting to hold down their normal food and drink. Therefore, we recommend **changing a child's diet** during the times when they are vomiting. This helps decrease (but may not stop!) the vomiting and can help the child feel less nauseous and uncomfortable. These food and drink changes should be continued for as long as the vomiting continues.

Often with vomiting, the stomach is irritated enough that we have to offer children **small amounts of clear liquids frequently** rather than allow them to drink as much as they would normally. It is best to try sips (or spoonfuls) at a time initially. Once a child is holding down sips of clear liquids over an hour or two, you can gradually allow the child to drink more at a time. Once they are holding down clear liquids without vomiting for several hours, it is okay to allow your child to try a small amount of a bland food. After an episode of vomiting, it is best to allow your child's stomach to rest for 20-30 minutes before allowing them to drink. Otherwise they are very likely to vomit again.

-- **Foods and drinks to avoid:** **Milk** and all **dairy** foods (cheese and cheese sauce, ice cream, yogurt, and pudding), **spicy** foods (chili, spicy Mexican foods, spicy Chinese and Asian foods, and spicy Indian foods), **greasy** foods (French fries, hamburgers, chicken nuggets, etc.), and **citrus** fruits and foods.

-- **Recommended drinks for infants:** **breast milk** or **Pedialyte®** (and other over-the-counter electrolyte drinks). Note that infants do not hold on well to their salts and can get very sick if given just water so we strongly recommend that vomiting infants not be given water.

-- **Recommended drinks for toddlers and older children:** **Pedialyte®** (and other over-the-counter electrolyte drinks); **Gatorade®** (Pedialyte® is preferable to Gatorade in treating vomiting because it has more salt); **water** and **ice chips**; watered-down apple, pear, or white grape **juice** (note that if the child has diarrhea, we would recommend white grape juice); and room-temperature, flat, non-carbonated **soda** (such as ginger ale, Sprite®, and 7-Up®). These are all considered "clear liquids".

-- **Recommended food when the vomiting gets better:** The following are bland foods that are often better tolerated than others once they have not vomited for several hours, their stomach feels better, and they are keeping down fluids. Toast, crackers, Cheerios, apple sauce, plain noodles (no sauce), and plain rice. Once they are tolerating these foods well (with no vomiting and their stomach feels better), you can gradually return to their normal intake of drinks and foods.

What To Do When.

-- If your child **vomits** => avoid foods initially and follow the instructions above about how to make diet changes.

-- If your child was vomiting, has improved, but as you allow them to eat and drink they are **vomiting again** => go back one step (normal foods => bland foods; bland foods => clear liquids; clear liquids => small sips only).

-- If your child is vomiting and now shows **signs of dehydration** => call us immediately. We will discuss with you further treatment. Nationwide Children's Hospital Emergency Department can treat dehydration with IV (intravenous; into the vein)

fluids if necessary. If a child is perking-up after 4-6 hours of IV fluids, they often are able to go home. If not, some children will need to be admitted to the hospital for further treatment. Do not go to the Urgent Care for IV fluids.

-- If your child is vomiting and **symptoms of Strep throat or a bladder infection** => continue the diet changes to treat the vomiting and then come in for walk-ins at 8 a.m. or call us during regular office hours to discuss with us an appointment to determine whether the child has Strep throat or a bladder infection. If your child has these symptoms over a weekend or after hours, it is safe to wait until the next business day to be seen in our office. If you prefer to not wait until the next business day, your child can be seen at the Nationwide Children's Hospital Urgent Care.

-- If your child has symptoms of **appendicitis** => this is a medical emergency and your child needs to be evaluated right away. We may see your child in the office during regular office hours for an initial evaluation or refer them to the Nationwide Children's Hospital Emergency Department.

-- If your child has symptoms of a **concussion or a bowel blockage** => your child needs to be seen immediately at Nationwide Children's Hospital Emergency Department.

-- If your child has a **fever with vomiting** and is having a difficult time holding down a fever-reducer => one option is not treating with a fever-reducer if the child is not too uncomfortable with the fever. Another option is to use the over-the-counter acetaminophen (available as Feverall® or generics) rectal suppositories. The dosing instructions are on the package or at the company's website at www.feverall.com. Please see the Fever protocol.

-- If your child is **vomiting blood or bile**, has **severe doubling-over belly pain**, or has severe **irritability and lethargy** with vomiting => call us immediately or take your child to Nationwide Children's Hospital Emergency Department.

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