

Acid Reflux

Gastroesophageal Reflux (GER)

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

Introduction.

Acid reflux is a common condition for children. Acid reflux means that acid and stomach contents (food or drink) come back up from the stomach into the esophagus (the connection between the mouth and stomach). From there it may go back down into the stomach, up into the mouth then swallowed again, get thrown up, or go down into the respiratory tract (what is called 'aspiration'). Acid reflux is also called gastroesophageal reflux or GER.

Infants with acid reflux.

When infants have acid reflux, it is important to separate this from normal infant spitting. Many (almost all) infants spit-up some amount of breast milk or formula. It may be a small mouthful or may at times seem like a whole feeding. Many of these infants have no significant pain, grow well, feed well, and improve as the months go by. For infants, the connection between the stomach and esophagus may allow things to come up as the stomach churns, even if months later it works just fine, keeping the reflux from happening.

For infants with reflux, the signs and symptoms can vary from infant to infant. It can start right after birth but typically shows up and worsens between the 2 week and 2 month check-ups, sometimes later. Any of these symptoms can occur: excessive crying, refusing to eat, irritability during feedings, arching of the back during feedings, chronic nasal and throat congestion, chronic cough, spitting up, choking or gagging, breath holding or apnea, chewing, sour or bad breath, and poor weight gain.

Infants with acid reflux typically improve sometime between 6 and 24 months of age. Occasionally, children have lingering symptoms past that age.

Children and adolescents with acid reflux.

Older children can tell us more about their pain from acid reflux. Sometimes children with acid reflux will report pain in their chest, what we adults would call "heart burn". Other symptoms can include stomach pain, an acid taste in the mouth, bad breath, a chronic cough, a hoarse voice, choking or gagging, vomiting, and a poor appetite or refusing to eat.

Older children and adolescents are more likely to have acid reflux symptoms that have specific triggers, which could include the following. This typically happens a few minutes to a few hours after eating these foods.

Acidic foods. Spaghetti sauce, pizza, ketchup, other tomato products, chili, tacos, and other Latino foods are some of the acidic foods that can make acid reflux more likely.

Citrus. Citrus foods, such as oranges, orange juice, pineapple, lemons, lemonade, and grapefruit, all can make acid reflux more likely.

Caffeine. Caffeinated drinks, including soda pop, tea, and coffee, can make acid reflux worse.

Carbonated drinks. For some people, the "bubbles" of the carbonated drinks like soda pop can make them have acid reflux.

Chocolate. In some people, chocolate causes reflux. It normally happens soon after eating or drinking the chocolate.

Medications. Many medications can cause reflux, including ibuprofen (Motrin or Advil), acetaminophen, some antibiotics, and others. Typically, it is using the medication for an extended period of time (such as taking ibuprofen regularly after having orthodontic work or after an injury) that causes problems with reflux. Many times, taking the medications with something more to eat helps prevent the reflux. Generally, when the medicine is not taken as often or stopped, the reflux stops.

Treating acid reflux.

For **infants**, we treat acid reflux differently than with older children. Since spitting-up is normal in many infants, a happy infant who is gaining weight well will often improve over time. We know this is terribly messy and distressing that these babies spit up large amounts (one of my sons did this for almost a year and we still have the stained clothes and furniture to prove it years later!), but there is no "magic cure" for this except time. Many of these children spit up a number of ounces at a time – it may seem as if the whole feeding came up, but if your child is growing well and not in pain with the episodes, we often will wait for symptoms to gradually get better sometime between 6 and 15 months of age (often 6-9 months of age).

For infants with large amounts of spitting with some discomfort, we first try the following things:

1. **Feeding smaller amounts more often.** Because infants with reflux are more likely to spit up if they eat larger amounts, trying to do a bit smaller feedings more often (for example: instead of 3 ounces every 3 hours doing 2 ounces every 2 hours).
2. **Burp your infant more often** during and after the feeding. Making sure we give your baby good chances to get their gas bubbles up lessens the chances of spitting up.
3. **Keep your infant upright** for ½ hour or so after each feeding. Because gravity can help hold down a feeding, keeping your baby upright (on your shoulder, in a bouncy seat, etc.) can help reduce the spitting. Note that the car seat and the position they are in may put too much pressure on their stomach right after eating, causing more reflux.

4. **Avoid moving them around too much** soon after feedings. A 4 month old that you are holding in a standing position on your lap who is pushing off with their legs and “jumping” is more likely to spit up, for instance.

What to do next: If the above things are not helping, the next step is to **add rice cereal to the bottle**. This, of course, will not help breast fed infants, but can make a real difference for infants with reflux who bottle feed. You may have to experiment with how much cereal to add, but the amount shown to work will likely surprise you: 1 tablespoon per 1 ounce of formula. Many times, this will make the formula very thick and you will have to carefully cross-cut the opening of the nipple to allow it to come through. Be careful to monitor that your child is not choking from taking in too much at once after you cross-cut the nipple. Infants with reflux can respond to using just 1 teaspoon per 1 ounce of formula, so using a small amount of cereal to see how it works before bumping up to a higher amount is just fine. As you can imagine, this can increase how many calories your baby will take in over a day. For many refluxing infants, this can help make up for calories lost through spitting up. You may wonder if it will be helpful to **change formulas**. It helps sometimes. That does not mean that it never helps, and some of our babies in the office will have some significant improvement with switching from milk-based (such as Similac) to soy formula (such as Isomil) **or** soy formula to hypoallergenic formula (such as Alimentum). Another option is Similac® for Spit-Up. It has added rice starch. It has less rice than if you added rice cereal to the formula, but can help some infants with spitting. If you do switch and you do not see any improvement after a few days to a week, you have given it a good try. If you do notice an improvement on soy or hypoallergenic formula, we would continue it until your child is 6-12 months of age (we will discuss it at the check-ups). For infants with more pain and discomfort: There are **prescription antacid medications** to help reduce the amount of acid the stomach makes. These medicines help the pain and help some children’s spitting up. It can help with the amount of spit up because the connection between the stomach and esophagus that controls how well things stay in the stomach can do a better job of closing when the stomach churns if the acid is not so severe. There are two main antacids that we use, both of them by prescription: **Zantac** and **Prevacid**. The medicines may need to be adjusted for weight gain over time. These medicines do not taste great, and may need to be flavored at your pharmacy. The average infant needs the medication until they are 6-12 months of age, but this is different from one child to another. For most children we know we can try off the medicine when the acid reflux symptoms are much improved *on* the medicine, your child is older by a few months, and they have grown well with good weight gain. The medicine can be stopped without weaning it off. If your child still needs the medicine, within a few days the symptoms would return.

For older children and teenagers, we often start with having children avoid things that may worsen the reflux (see list above). Some children will be able to completely control their acid reflux by avoiding things that make it worse. This is not always necessary (as a medicine may really help) or possible (you may find some things that worsen your child’s reflux that are a regular part of their food intake and are difficult to avoid). For many children, we treat with an over-the-counter or prescription antacid to help control the acid. This often stops or really decreases the pain children have with acid reflux. For those children needing a medication, all of them have similar side effects (which generally are so mild that they do not become troublesome): headache, stomachache (!), and rash. Many of the medicines unfortunately do not taste very good and may need to be flavored at the pharmacy.

For children needing just an occasional dose of an antacid when their acid reflux is bothering them, the over-the-counter medicines below can be helpful. If a child needs a medicine routinely at least 2-3 times a week or more, we would recommend they take a medicine more routinely, such as Zantac, Prilosec, or others. The following medicines are helpful for the occasional dose for brief acid reflux symptoms:

Children’s Mylanta chewables 2-5 years of age: 1 chewable every 4-6 hours as needed; 6-11 years: 2 chewables every 4-6 hours as needed.

Tums Kids chewables 2-4 years of age: ½ chewable every 4-6 hours as needed; 5 years or above: 1 chewable every 4-6 hours as needed.

For older children who can swallow a pill and are the appropriate weight, the following medicines are often helpful if a medicine is needed on a regular or daily basis:

Zantac 75 mg tablet (ranitidine) Available over-the-counter and fine to use in any child who weighs at least 50 pounds and can swallow a pill. Given twice a day (morning and evening). Safe to take long-term. We may instruct you to dose this differently for older and bigger kids. Available as a generic that is often much cheaper and works just fine.

Prilosec OTC 20 mg tablet (omeprazole) Available over-the-counter. For 2 years of age and can swallow a pill (it is okay to crush it and put on applesauce), the dose is **½ tablet** (10 mg) by mouth once a day if less than 45 pounds. For those that can swallow a pill (again, it is okay to crush the pill and put it on applesauce) and at least 45 pounds, the dose is **1 tablet** (20 mg) by mouth once a day.

Nexium capsules 12-17 years of age: 20 mg capsules once a day.

For children who are either not responding to the above or need something other than a pill, there are some prescription medications we have found very useful. They include:

Prevacid Solutab 1-11 years of age and less than 65 pounds: 15 mg dissolved on the tongue (do not chew) once a day; 65 pounds and greater: 30 mg dissolved on the tongue once a day.

Prevacid for Oral Suspension 1-11 years of age and less than 65 pounds: 15 mg packet once a day; 65 pounds and greater: 30 mg packet once a day. The granules in the packet are dissolved in one ounce (30 ml.) of water and drank immediately.

Seeing us in the office to discuss acid reflux.

Many children with acid reflux symptoms will benefit from us sitting down in the office to discuss their symptoms, for us to examine them here in the office, and to make a plan on how to help your child's reflux. These visits typically require some extra time here in the office. Please call and make an appointment during regular office hours.

Seeing the acid reflux specialist.

Some children with reflux need to see the acid reflux specialist, the pediatric gastroenterologist at Nationwide Children's Hospital. Some of the reasons a child may need to see the specialist: reflux with no relief from the medications, poor weight gain due to reflux, someone with acid reflux vomiting blood or passing blood in their bowel movements, acid reflux that makes someone's asthma worse, or acid reflux that has resulted in someone having chest infections. If your child needs to see the "GI" specialist, we will assist you with the referral process.

-- Dr. Tim Teller, M.D. – Hilliard Pediatrics, Inc. – 5/13