Spitting Up and Vomiting:
What the Symptom Says about the Cause
by Susan Agrawal

We all know that it is normal for babies to spit up. And we all know that when a five-year-old suddenly starts vomiting, along with half of his kindergarten class, he probably has a stomach bug. But what about the toddler who vomits every day? Or the two year old who constantly has a nasty taste in his mouth? Or the infant who suddenly starts vomiting across the room?

First we need to start with some definitions of symptoms.

- **Reflux** is the passive movement of gastric contents up the esophagus. Some children only reflux into their esophagus and never taste anything in their mouth or spit out any liquid. This is commonly called Silent Reflux or Heartburn in older children and adults. Other children, especially babies, dribble or spit formula out of their mouths. This may be a small amount (a teaspoon or less) or a very copious amount...as much as an entire feeding. Everybody refluxes, and infants, who have less well-developed gastro-intestinal systems, often reflux a lot. **Spitting Up** is a common term used for babies who dribble or spit breastmilk or formula out of their mouths. It is the most common symptom of reflux in babies.

- **Vomiting** is the forceful expulsion of stomach contents out the mouth and/or nose. Vomiting occurs when the “vomiting center” of the brain is activated, causing contractions in the GI system and the forceful ejection of gastric contents out of the mouth. **Projectile vomiting** is vomiting that flies literally across the room. **Retching** is having the dry heaves...the urge to vomit but without anything coming up.

These symptoms can be very normal, especially reflux in babies or vomiting in individuals with a stomach virus or food poisoning. They only become diagnostically significant when they are a symptom of a larger problem or when they cause additional symptoms.

**Reflux and Spitting Up**

Spitting up is very normal in babies, even when it is a large amount. Dawn’s daughter Emily was a classic happy spitter who spit up constantly, especially when she ate too much, but grew and developed fine. The infant who spits up gains weight well and is
thriveing and happy does not need any treatment or intervention, other than time to mature.

Spitting up only becomes a problem when a child stops gaining weight, refuses to eat, has significant pain due to acid, develops respiratory symptoms from penetration or aspiration, or has damage to the esophagus. In these babies, further evaluation and intervention is needed, preferably by a Pediatric Gastroenterologist. Julie’s son Jared spit up 5-15 times a day and was treated with Zantac and eventually Prevacid until his reflux resolved spontaneously at 13 months of age. Kim’s daughter Kailey also spit up multiple times after each bottle. After many tests, including pH probes and endoscopies, she was diagnosed with reflux and treated with Tagamet and Carafate. While she still struggles with reflux and pain, she is no longer screaming eight hours a day. Leo’s daughter Kendra was spitting up 6-7 times a day as an infant, but has improved with a combination of Zantac and Prevacid.

Silent reflux can also plague babies and confound doctors. Shelley’s son Cody was the classic silent refuxer—he choked and was irritable after feeds but never spit up. He was treated with Prilosec and as he grew older, his reflux improved dramatically. Will, son to Heather, also had silent reflux that was not discovered until it became less “silent” after G-tube placement. Dawn’s son CJ also rarely spit up, but tests showed he had damage to his esophagus due to silent reflux and delayed gastric emptying. He still struggles with his GI problems.

Most babies outgrow their reflux between 6 months and a year of age, with over 90% symptom-free by age two. Children who continue to reflux past the age of two should be evaluated by a Pediatric Gastroenterologist and treated with diet changes, lifestyle modification, or medication.

**Vomiting and Retching**

While vomiting is always of greater concern than reflux, it, too, can be normal in the course of an illness. Frequent vomiting or retching, however, is of greater significance.

In an infant less than 4 months old, sudden-onset forceful vomiting may be a symptom of pyloric stenosis, a medical emergency that typically requires surgery. My daughter Karuna began forcefully vomiting twenty times a day at six weeks of age. An Upper GI scan of her stomach showed that it took more than two hours for anything to leave her stomach due to a narrowed pylorus, the valve between the stomach and small intestine. She required urgent surgery to reopen her pylorus.

Other infants may vomit once or twice a week due to overeating or activity. This is normal, and due to an immature digestive system.

Persistent vomiting (daily or almost daily) or retching is most commonly a sign of a motility problem such as delayed gastric emptying or dysmotility. Vomiting occurs because the stomach becomes too full or makes sudden, abrupt contractions. This type of
vomiting is more difficult to control, but medications and other interventions can help improve symptoms. Vomiting, however, may not be present in all children with delayed gastric emptying. Dawn’s son CJ has delayed gastric emptying and rarely vomits.

Vomiting up bile or large amounts of blood is never normal, and should be evaluated promptly by a medical professional. Dark green bilious vomit is a sign of an intestinal blockage, which is a medical emergency.

Persistent vomiting may also be a sign of many other diseases or conditions ranging from neurological problems to allergic conditions. Schuyler, son to Bama, vomited due to reflux, feeding intolerances, Transient Hypogammaglobulinemia of Infancy, and other unknown factors and required fundoplication surgery. Julie’s son Nathan and my daughter Karuna have vomited or retched due to neurological causes. Any persistent vomiting without clear cause (such as a stomach virus) should be evaluated by a medical professional.

**Why Distinguish between Reflux and Vomiting?**

Many doctors do not distinguish between reflux and vomiting, especially when it comes to infants. Determining whether your child is spitting up or vomiting may drastically alter the treatment for a child. A baby with simple reflux can be treated with Prevacid, Prilosec, or Zantac with great success. But a baby who vomits daily may have a motility problem such as delayed gastric emptying or dysmotility that requires an entirely different treatment and specialized tests. Understanding the difference between refluxing and vomiting may help you and your doctor determine the best treatment available for your child’s symptoms.