

Gastroesophageal Reflux (GER)

Definition: GER or Reflux is the medical term used to describe a condition in which stomach contents (food and gastric acid) frequently flow back up out of the stomach or "regurgitate" into the esophagus. The food that comes up may or may not flow all the way out of the mouth. It may be forceful vomiting which empties the stomach, or it can be more like a "wet burp."

Signs and symptoms: There are many different symptoms of GER and your child may only have a few of these symptoms. The most common symptoms include:

- recurrent vomiting during or after meals, effortless regurgitation, excessive spitting up
- trouble swallowing, choking, gagging, aspiration, heartburn, chest and stomach pain
- respiratory symptoms; cough, recurrent pneumonia's or bronchitis, hoarseness, throat clearing, sore throat, hoarse voice, apnea, stridor, aspiration, runny nose, asthma, wheezing, congestion
- poor weight gain, malnutrition, ear infections, colic
- pain, irritability, excessive crying, arching/hyperextension, and food refusal
- bad breath, wet burping, sweating
- food refusal, picky eating, oral hypersensitivity, excessive drooling
- poor sleeping, frequent waking, constant eating and drinking

What is normal spit up?

Most infants (about 65%) spit up occasionally. But they start to grow out of it around 6 months when they typically start to sit up and gravity can help keep things down. They also begin to eat heavier foods at this time. Most babies improve by one year of age.

Is GERD Harmful? Reflux becomes a problem when the child is showing signs of complications.

Besides being very unpleasant, having acid and food come back up from the stomach can cause swelling and reddening of the esophagus called esophagitis, which is painful. In severe cases, it can cause bleeding or strictures which makes swallowing difficult. If eating is painful, poor growth can result from lack of nutrition. Respiratory problems can develop from stomach contents entering the nose, trachea, or lungs called aspiration. This can cause breathing problems such as wheezing, stridor, pneumonia, or sinus infections.

What causes GERD in children?

We don't always know, but these are some reasons a child might have reflux:

- low muscle tone (the muscles don't hold the food in the stomach)
- transient lower esophageal sphincter (LES) relaxation (the LES is a high pressure zone above the stomach that is supposed to keep the food in the stomach but may relax periodically)
- allergies to the diet
- abnormal motility in the digestive tract (somewhere along the digestive tract the food may slow down, get backed up, or go the wrong way because of abnormal muscle contractions)
- constipation (if a child is constipated, food may get stuck and go the wrong way)

How is reflux diagnosed?

Reflux is diagnosed primarily based on the child's symptoms. Often, the doctor will start treatment without doing tests. If the baby responds well, tests may be unnecessary unless the doctor has reason to believe there might be another medical condition.

How does GERD impacts feeding?

- can cause poor weight gain, poor intake or failure to thrive
- picky eating, refusal of textures or types of food, delayed chewing patterns
- oral hypersensitivity, irritability with meals, coughing, choking, aspiration
- pain with eating which leads to a fear of eating

GERD is more commonly seen in children with the following conditions:

cerebral palsy	hypotonia (low muscle tone)	down's syndrome
prematurity	hiatal hernia	short gut syndrome
Transesophageal fistula	Respiratory disease	Esophageal atresia with repair
Congenital Heart Disease		

* A future handout will discuss treatment and intervention strategies.

References and resources:

www.reflux.org

www.iffgd.org

www.refluxinchildren.com

Hart, John J. Pediatric Gastroesophageal Reflux. American Family Physician 1996; 54: 2463 - 2471.

Hymen, Paul E. Gastroesophageal Reflux: One Reason Why Baby Won't Eat. The Journal of Pediatrics 1994; 125: S103 - 109.

Orenstein, Susan R. Infantile Reflux: Different from Adult Reflux. American Journal of Medicine 1997; 103 (3S): 114S-119S.

Putnam, Philip E. Gastroesophageal Reflux Disease and Dysphagia in Children. Seminars in Speech and Language 1997; 18: 25-37.

Yellon, Robert F. The spectrum of Reflux - Associated Otolaryngologic Problems in Infants and Children. American Journal of Medicine 1997; 103 (3S): 125S-129S.