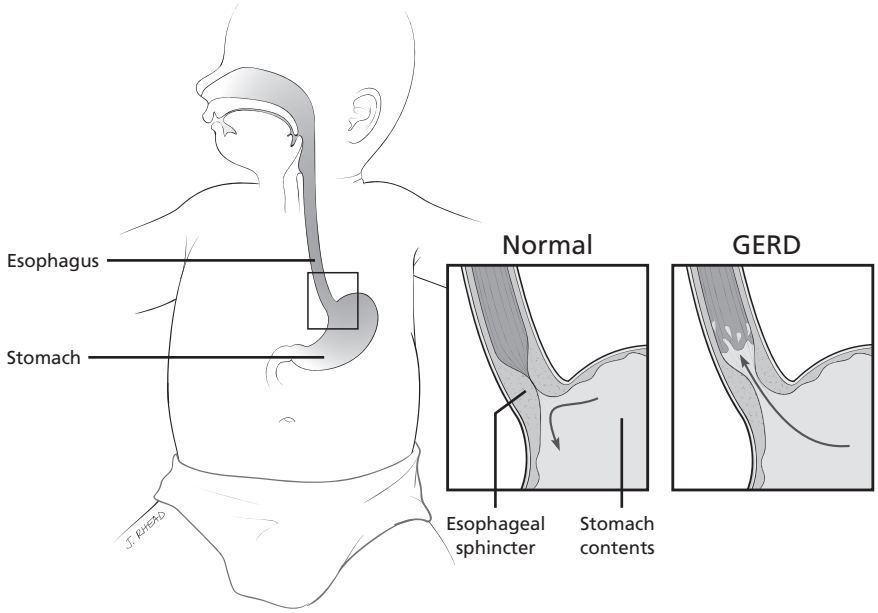
Let's Talk
ABOUT...

Gastroesophageal Reflux Disease (GERD) in infants (0-24 months)



What is GERD?

When your child swallows food, it travels from the mouth to the stomach down a tube called the **esophagus** (e-SOF-uh-gus). There is round muscle at the end of the esophagus that enters the stomach. This round muscle is the **esophageal sphincter** (e-SOF-uh-GEE-ul SFINK-ter). If the sphincter cannot stay closed, some of the stomach contents go back up into the esophagus. This backward flow is called **gastroesophageal** (gastro-uh-sof-uh-GEE-ul) **reflux** or GER.

A small amount of reflux is normal in infants. Usually, it happens with a full stomach after eating. Many children outgrow this by 18 months of age. However, reflux can occur at other times and is not always related to a feeding or a full stomach. Sometimes, reflux does not go away on its own.

When reflux causes pain or problems with swallowing, getting enough nutrition, or breathing, it is called **Gastroesophageal Reflux Disease** or **GERD**.

What are the symptoms of GERD?

- Lots of spitting up or vomiting
- Lots of fussiness, pain, back arching or head turning
- Coughing or wheezing, hoarseness
- Problems swallowing and gagging, refusing to eat or swallow
- Poor weight gain

What causes GERD?

The cause of GERD is not clear. There are many factors that contribute to GERD:

- An esophageal sphincter that is not completely formed or does not work well. This may be due to a child's age, developmental level, control by the brain and nerves, or control by normal chemicals found in the blood
- Abnormal swallowing
- Slow emptying of the stomach
- Eating too much, too fast

There are some things that make children more likely to get GERD:

- Brain problems associated with developmental delay.
- Prematurity.
- Long-lasting (chronic) obstructive respiratory disease such as asthma or broncho-pulmonary dysplasia. Anything that makes breathing difficult may increase GERD.
- Down syndrome.
- Scoliosis (side-to-side curving of the spine).

How do you know if it is GERD?

There are a number of tests that may help find out if your child has GERD. Your doctor will discuss the treatment plan with you. The tests are:

Barium Swallow

You child swallows a liquid with barium in it (an element that can be seen on x-rays). The doctor watches the swallowing action of the esophagus with a fluoroscopy machine, which is like an x-ray video camera.

Upper GI Test

This test is like a barium swallow, but it looks at the esophagus, stomach, and **duodenum** (dew-ODD-en-um) (the first part of the small intestine, after the stomach).

Esophagoscopy

This is a test using a special tube (a scope) to view the inside of the esophagus.

pH Probe Study

This test is usually done for 18 to 24 hours. A small, flexible tube with a sensor at the end called a probe is placed through the nose into the esophagus. It stops just above the opening into the stomach. The probe continuously records how much acid is in the esophagus. When reflux happens, the esophagus becomes more acidic. This test helps diagnose GERD, see if treatment is working, or finds out if other symptoms like coughing happen with the GERD. Your child must stay overnight in the hospital for this test. For children 5 and older, a small sensor can be placed on the inside of the esophagus. The sensor monitors reflux for two days while your child is at home. This is called a Bravo pH study and requires anesthesia and an esophagoscopy procedure to place the sensor.

How do you treat GERD?

The first steps that you can take are:

- Burp your child frequently during feedings.
- Keep your child upright as much as possible during the feeding and for at least 30 minutes after the feeding is done.
- Feed your child frequently and with smaller amounts of food.
- If your child spits up, do not give the feeding again right away. Wait until the next feeding time.
- Place your child in a car seat only for riding in a vehicle. The car seat position lets more reflux happen.
- Avoid tight waistbands for your child. Avoid taping diapers too tightly around your child's waist.
- Avoid exposing your child to tobacco smoke.
- Ask your physician if thickening your child's feeding would be helping and if you should try giving your child a hypoallergenic formula.

If these steps do not help, several medicines are available. Some of the medicines help the food go through the stomach so the stomach empties properly. Medicine can also make the stomach less acid.

Medicines that improve the esophagus and help the stomach empty:

- Metaclopramide (Reglan®)
- Erythromycin

Medicines that lessen stomach acid for several hours (strongest medicines first):

- Cimetidine (Tagamet®)
- Ranitidine (Zantac®)

- Famotidine (Pepcid®)
- Omeprazole (Prilosec®)
- Iansoprazole (Prevacid®)

Medicines used for immediate heartburn relief:

- Antacids
- Sucralfate (Carafate®)

Surgery is sometimes needed if other methods fail or if severe complications of GERD occur. A pediatric surgeon will discuss any recommended surgery with you.

What are the possible complications of GERD?

Complications may include:

- Pain/fussiness
- Choking spells
- Wheezing and worsening of asthma
- Recurring pneumonia or respiratory infections
- Not growing
- Bloody vomit or stools
- Temporary lack of breathing (called apnea)
- Swallowing problems or pain when swallowing

Call your doctor if. . .

- Your child develops symptoms of illness, such as fever, wheezing, difficulty breathing, chronic coughing, or blood-stained saliva.
- Your child has difficulty eating or swallowing.
- Your child has severe episodes of choking, times when his breathing stops, or times when he turns blue.
- Your child is vomiting and you notice blood or green or yellow fluid in the throw up.
- It is very difficult to console your child because of severe crying to irritability.
- Your child is not gaining weight.
- Your child is not drinking at least 2 ounces per pound of body weight a day. For example, a 16-pound baby needs to drink at least 32 ounces of fluid (breast milk or formula) per day.

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