Gastroesophageal Reflux Disease

Gastroesophageal reflux occurs when the contents of the stomach, including stomach acid, move upward ("reflux") into the esophagus (swallowing tube). In infants, reflux is a fairly common problem ("spitting up") that usually clears up with time. Gastroesophageal reflux becomes a disease (GERD) when it occurs enough to cause heartburn, respiratory symptoms, and other problems. Over time, GERD can cause damage to the esophagus and other complications.

What is gastroesophageal reflux disease?

Gastroesophageal reflux disease (GERD) occurs when the stomach contents, including stomach acid, regularly move backward: up from the stomach and into the esophagus. The stomach has a special lining that normally protects it from the harmful effects of acid. The esophagus does not; therefore, when acid gets into the esophagus it can cause irritation, pain, and tissue damage. GERD can also cause respiratory (breathing-related) problems, including making asthma worse.

Treatment includes avoiding certain foods and taking medications to reduce stomach acid. Surgery is rarely needed. In infants, some reflux ("spitting up") is normal. However, treatment is needed if your baby is having reflux that is causing other symptoms or interfering with gaining weight.

What does it look like?

- In babies, you may see milk or formula coming out of the mouths. Older children may complain of a sour taste in their mouths.
- Infants with GERD may be fussy. Your baby may cry, arch his or her back, or refuse feedings. He or she may vomit frequently and gain weight slowly.
- Young children may complain of stomachaches. Older children and teens may have typical "heartburn."
- Symptoms occur commonly after meals. In older kids and teens, symptoms may get better after taking antacids (for example, Tums).
- If GERD becomes severe, it may cause problems with eating and swallowing.
- If stomach acid gets into the throat and airway, it may lead to other symptoms, including:

- In infants: gagging, choking, episodes of apnea (temporary interruption of breathing).
- Hoarse, scratchy voice.
- Coughing, throat-clearing.
- If your child has asthma, GERD may make it worse.

What are some possible complications of GERD?

- GERD can cause feeding problems and slow weight gain in infants (although this is uncommon).
- Frequent reflux of stomach acid can cause damage to the teeth (erosion).
- GERD may cause or contribute to breathing-related symptoms, including laryngitis (hoarseness); throat, sinus, and ear infections; and sleep apnea (temporary interruptions of breathing during sleep).
- GERD seems to be common in children with asthma and may even worsen asthma. GERD in children with asthma or other respiratory diseases may require long-term treatment
- Other long-term complications are possible, but rare in children:
 - Acid can damage the lower esophagus, causing scarring and narrowing (strictures).
 - If GERD continues into adulthood, it may increase the risk of cancer of the esophagus.

What puts your child at risk of GERD?

- GERD is a common and increasingly recognized condition. It may run in families.
- In teens (and adults), being obese, overeating, and using alcohol and tobacco may all contribute to GERD.

How is GERD diagnosed?

- It can be difficult to recognize GERD, especially in infants and younger children. Older children and teens are more likely to have the typical pattern of heartburn after eating.
- If the doctor suspects your child has GERD, he or she may recommend tests, such as:

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- *X-rays*. An "upper GI series," using a material called barium that shows up on x-rays. This test can show any abnormalities of the stomach and esophagus.
- pH Probe. A tube may be placed into the esophagus to test for stomach acid.
- *Endoscopy*. A flexible instrument like a telescope is used to examine the esophagus and stomach directly.
- At other times, the doctor will simply recommend trying acid-reducing drugs. If the medications reduce your child's heartburn or other symptoms, then GERD is probably present.

How is GERD treated?

Medications are the main treatment for GERD:

- Several types of acid-reducing drugs are available.
 Examples include Tagamet (generic name: cimetidine) and Prilosec (generic name: omeprazole). These medications work by reducing acid production by the stomach.
- Antacid drugs (for example, Tums) can reduce heartburn symptoms. However, they have to be given very frequently and may cause side effects.
- Drug treatment may have to continue for a while, especially if your child is having asthma or other airway-related symptoms. If heartburn or other symptoms improve, the doctor may try stopping medication for a while to see if the problem has cleared up.

Other treatments:

- For infants:
 - For some infants with GERD, the doctor may recommend thickening the formula.

- Elevating the head of the bed does not appear to help much in infants. Feeding the baby in a seated position (for example, in a car seat) is also not helpful and may actually increase reflux.
- Laying the baby on his or her stomach to sleep may help reflux but is not recommended because of the risk of sudden infant death syndrome (SIDS).
- For older children and teens:
 - Avoid giving your child acid-producing foods, such as caffeine and chocolate. Teens with GERD should avoid alcohol and smoking.
 - Since many reflux episodes occur at night, it may help to raise the head of your child's bed. Place the legs of the bed on 6-inch wood blocks.
- We may recommend a visit to a doctor specializing in stomach and intestinal diseases (a gastroenterologist) if the diagnosis is uncertain, if treatment doesn't help, or if your child has complications related to GERD.

When should I call your office?

Call our office if symptoms of GERD continue or return, especially if your child has:

- Frequent vomiting: in infants, vomiting with weight loss, slow growth, or fussiness.
- Heartburn, chest pain, or stomach pain.
- Painful swallowing or difficulty swallowing.
- Choking, gagging, or apnea (temporary interruptions of breathing during sleep).