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Gastroesophageal Reflux

Gastroesophageal Reflux Disease, sometimes called GERD, refers to a condition where the acidic stomach contents wash backwards into the esophagus (swallowing tube). Since the esophagus is not designed to withstand acid, reflux causes irritation and pain. Over time, chronic inflammation of the esophagus may become serious.

Symptoms of reflux may include: vomiting, poor weight gain, painful swallowing, abdominal or lower chest pain (heartburn), feeling full before a meal is over, burning sensation in the throat, cough, and hoarse voice. Infants may cry, arch the back or start and stop feedings frequently. Blood in the vomit is a cause for concern.

Many infants spit up. Normally, a ring of muscle called the lower esophageal sphincter keeps stomach contents from refluxing. Babies may have immature muscle rings until one to two years of age. This spitting is effortless and not associated with any signs of distress. This is different from GERD.

Reflux may aggravate asthma or cause recurrent pneumonia

Reflux is usually **diagnosed** based on history and physical examination. Tests for reflux are available for children whose reflux does not respond to treatment, or whose diagnosis is unclear. These tests include

- Upper GI series- not very sensitive because reflux comes and goes throughout the day, and the GI series or barium swallow gives a picture of a moment in time.
- pH monitoring – reliable test which requires a wire in the esophagus for 12-24 hours
- Endoscopy – a direct examination of the lining of the esophagus with a scope. Excellent test for accuracy. Requires sedation.

Treatment of reflux includes the following:

- Dietary changes
    - Infant:
        - A one to two week trial of hypoallergenic formula may be recommended, in case milk allergy is causing the symptoms.
        - Thickened feedings (adding cereal to formula) may decrease reflux
        - Smaller more frequent feeding
        - Breast feeding mothers may eliminate dairy products from their diet for about a week trial, and limit caffeine
    - Child and adolescent:
        - Avoid caffeine (chocolate, iced tea, cola, coffee, tea, etc)
        - Avoid spicy foods
        - Avoid citrus, tomato
        - Avoid peppermint
        - Five or six small meals instead of three large meals may help

- Positioning
    - Infant
        - Continue to position the infant on the back for sleeping. The risk of SIDS outweighs the risk of reflux.
        - Infant seats do not provide proper positioning for reflux and may actually make it worse since infants tend to slump in the seat, increasing the pressure in the stomach.
        - Hold the baby upright for twenty minutes after feeding if possible
    - Child and adolescent
        - Elevate the head of the bed six inches (not just a pillow – the whole bed)
        - Sleeping on the left side may help
- Lifestyle changes
    - Obesity is associated with reflux
    - Smoking is strongly associated with reflux, including passive smoking (being exposed to someone else's smoke – see Passive Smoking handout)
    - Alcohol is associated with reflux
    - Certain medications increase reflux – check with your provider if you take prescription or herbal drugs, or over the counter products
- Medications
    - Acid –suppression
        - Antacids such as Maalox, Mylanta or Tums may help but are rarely enough
        - Histamine 2 blockers such as Zantac, Axid, Tagamet, or Pepcid
        - Proton pump inhibitors ("PPIs") – such as Prevacid, Protonix, Aciphex, Nexium, Prilosec. These medications decrease acid production dramatically. Usually given 15-30 minutes before the first meal of the day.
        - Medications are usually used for a two to four week trial and continued until the symptoms are gone for at least two weeks
        - Side effects of medications that reduce acid may include: diarrhea, headache, constipation, and abdominal pain.
        - Children who do not respond to treatment are re-evaluated at an office visit.
- Surgery
    - Rarely necessary for children

Children with multiple episodes of GERD over time, even if they respond to treatment, may be evaluated with further testing.

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