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ACID REFLUX AND EAR, NOSE AND THROAT PROBLEMS

What is "Reflux"?

Gastroesophageal reflux occurs when acid and other toxic stomach fluids come up out of the stomach and go into the esophagus (swallowing tube).

Extra-esophageal reflux is a different disease and occurs when acid and other toxic stomach fluids come up out of the stomach and go into the throat, nose, sinuses, larynx (voice box), and lungs.

The lining of the esophagus is very strong and is made to withstand some acid and other irritating stomach contents. The more delicate lining of the ears, nose, throat and lungs are more easily damaged by these irritants. **New research indicates that infants who have reflux do not always "outgrow" the problem.** This problem can also run in families. Reflux can cause or mimic asthma, worsen obstructive sleep apnea, and contribute to mood disorders and headaches. Reflux is associated with obesity, food allergies, and neuromuscular disorders. Reflux can be caused by other GI problems as well.

What Are the Symptoms of Reflux in Kids?

Symptoms of reflux vary by age and are much different in children than adults. Many symptoms occur at one time. Check off those which are present frequently in your child or yourself:

Sleep disruption	Noisy breathing	Nasal congestion/stuffiness	Nasal obstruction
Snoring	Chronic cough	Recurrent croup	Something "stuck in throat"
Hiccups	Blue spells	Wheezing/asthma	Gagging/choking
Hoarseness	Throat clearing	New onset wheezing	Apnea (stops breathing)
Difficulty swallowing	Gagging	Choking	Food refusal
Poor weight gain	Constipation	Poor feeding	Poor weight gain
Stomach aches	Vomiting	Rumination	"Frequent Spitting up"
Frequent burps	Wet burps	"Baby barfs"	Regurgitation of food
Heartburn	Ear infections	Sore throats	Throat pain
Chronic sinusitis	Bad breath	Dental caries	Recurrent oral sores
Chronic fatigue	Headaches	Taste problems	Nasal pain
Tongue problems	Ear pain	Ear stuffiness	Sore throats

Associated behaviors which are found in children with reflux include: late night eating, erratic meal times, eating on the run (especially in the car), and eating within one hour before exercise

How Do We Evaluate for Reflux?

Best way is a **detailed history**. Other tests may be needed:

Scintiscan with Gastric Emptying: This is a screening test. If it shows reflux or the stomach empties slowly, it is consistent with reflux. A normal test **does not** mean the patient does not have reflux.

Upper GI Series: This test is only ordered when structural problems are being considered.

24 hour hypopharyngeal pH probe: A very small, soft probe (plastic) is passed to the back of the throat above the roof of the mouth and is left in place for 24 hours while we measure the amount of acid that comes up into the throat. This is a test we do in our office.

Endoscopy: When we need to evaluate the breathing or swallowing tubes, a small lighted tube may be use to look down. This test may be done in the office or in the operating room under anesthesia.

Therapeutic Trial: When symptoms are typical we may decide to treat and re-evaluate in 3-4 months.

How Do We Treat Reflux?

BASIC PRINCIPLES FOR EVERYONE:

1. **NO TOBACCO SMOKE IN HOME AND CAR—Even when child is not there.**
2. **ELEVATE THE HEAD OF THE BED 6-8 INCHES. A sleeping wedge is also fine and may be purchased on-line (e.g. www.arpillow.com or www.pollywogbaby.com).**
3. **EAT AS A FAMILY with REGULAR MEALTIMES AND EAT SLOWLY.**
4. **FOR CHILDREN AND ADOLESCENTS THIS IS A FAMILY AFFAIR!!**

For Infants:

- Change Formula to: _____
- Small, frequent, slow feeds
- Feed in upright position
- No cereal in bottle
- Thickened feeds
- Eliminate pacifier
- Decreased volume or concentration before bed
- Do not feed in the middle of the night if possible
- Breastfeeding Mom should follow a reflux diet
- Keep upright 30 minutes after feeding
- Eliminate bottle

For Older Children/Teens/Adults

- Reflux diet
- Eat slowly, relax, sit nicely at the table
- Do not eat laying down
- No eating on the run or especially in the car
- Small, frequent meals (w/gastroparesis)
- Do not lay down for 1 hour after meals
- No vigorous exercise for 1 hour after meals
- No eating/drinking 1.5 hours before bed
- Weight reduction
- Reduce stress—exercise regularly
- No alcohol

Medications:

There are two types of medications that reduce acidity, proton pump inhibitors (PPIs) and H2 Blockers.

The **PPIs decrease stomach acid production**. The most common are: Prevacid, Prilosec, Nexium, Protonix and Zegerid. Some come in liquid, powder or melt away forms. **They all need to be taken when the stomach is empty. Food must be eaten 20-45 minutes after taking the medication to activate the medication!** Side effects are uncommon and may include: nausea, diarrhea, headaches and stomach aches. With *long term therapy*, additional calcium needs to be given in the diet (dairy products or leafy green vegetables such as spinach and broccoli.) Prilosec, Prevacid and Nexium come in (over the counter) OTC preparations and we do use them if the child can take a capsule. These preparations are not FDA approved for very young children.

The **H2 Blockers block acid already in the stomach**. These include: Zantac and Acifex. Tolerance can develop and effectiveness is gone. They may be used in addition to a PPI for severe reflux.

Some medications tighten the valve between the stomach and swallowing tube and/or make the contents of the stomach empty faster. These are called pro-kinetics. The side effects can be severe and they are only rarely used in the US today.

Surgery to correct reflux is called a fundoplication. This surgery is only recommended in cases where the reflux is so severe that it cannot be controlled by diet, lifestyle changes, and medications and is causing significant problems. A general pediatric or adult surgeon will be consulted if this option is being considered. The surgery is now done safely through minimally invasive endoscopic techniques.

FOR MORE DETAILED INFORMATION PLEASE VISIT OUR WEBSITE: WWW.WNYKIDSENT.COM