

When spitting up becomes serious....duh, duh, duh!!!

GER and GERD in the Pediatric Patient

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Surgical Indications and Continuity for Kids (SICK) ECHO 2018-2020
When spitting up becomes serious -- duh, duh, duh....cue ominous music
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Ellen Reyerson, NP

Provided by the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP)

Intended Audience:

Primary care physicians

Objectives:

As a result of this educational regularly scheduled series, learners will be able to:

1. Assess and correct physiological and psychological problems that may increase surgical risk for regional pediatric patients.
2. Give the patient and significant others complete learning and teaching guidelines regarding the surgery.
3. Instruct and demonstrate exercises that will benefit the pediatric patient postoperatively.
4. Plan for discharge and any projected changes in lifestyle due to the surgery.

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**A little bit about me – Iowa – long line of people who love peds –
17 years as a pediatric RN and 13 years as an NP! UW-Madison
for 6 years***



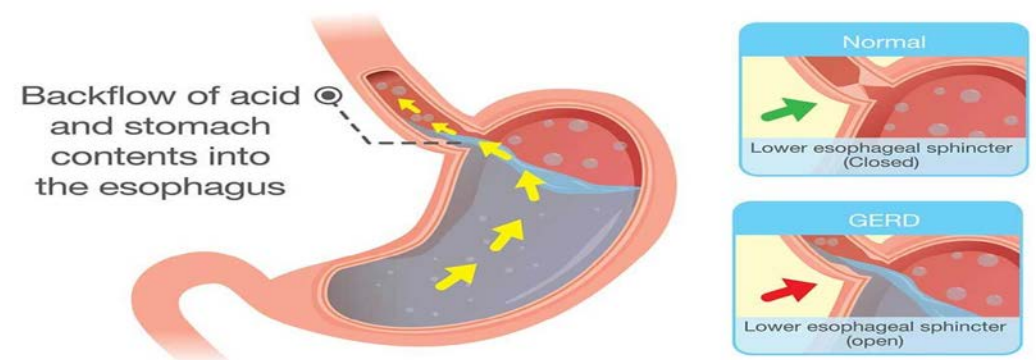
*no disclaimers, no side hustles, no conflicts of interest unless you count diet coke addiction

GER...Reflux...Acid...Barf...Spitup...GERD: What is it???

- GER (gastroesophageal reflux)
 - Passage of stomach contents into the esophagus from the stomach through the LES
 - Common in neonates and babies, typically goes away by age 1 with staged improvements with sitting and standing
 - Babies can be very fussy
 - Spitups can be big or small
 - Will not result in weight loss or poor weight gain, intractable crying, apneic events or aspiration

- GERD

- Same as GER but comes with sequelae
 - Weight loss
 - Poor weight gain
 - Apneic events +/- aspiration
 - Sometimes recurrent resp infections
 - Intractable crying? Sometimes.
 - Blood in emesis



So what is it and what should I do?

- GER

- Happy spitters -- watch
- Barfing babies who still gain weight but stain the carpet – watch and sympathize, recommend carpet cleaner
- Barfing babies who still gain weight, stain the carpet and are extremely fussy – formula change if willing, consider meds
- Big kids with mild/moderate heartburn or infrequent vomit – identify dietary triggers/start meds

- GERD

- Barfing babies on meds who can't gain weight, have ALTE events or aspiration pneumonia – refer to peds GI
- Big kids with frequent vomit, weight loss, or GER not controlled by medication – try 2, then refer to peds GI
- Medically complex children on GT feeds or with complex feeding regimen – refer to peds GI and/or peds surgery

Is it spitup, barf, or reflux?



Will this help?

- Sitting elevated in swing/bouncy seat/carseat – probably not
- Being held upright 30 minutes after a feed – maybe
- Make sure baby is not being over fed – probably
- Wedge under mattress – doubt it
- Danny sling – baby might fall out
- Pillows/boppies/dock a tots, any soft surface **INSTEAD** of a firm mattress – **PLEASE DON'T!!!**



Tests and Treatments – Should I???

TESTS

- UGI – not useful for GER
 - All babies have physiologic or functional GER and most will reflux on an UGI
- pH probe – no accepted normal in pediatrics, therefore rarely useful
 - Acceptable in adult population but rarely done in peds, difficult to do
- Endoscopy – not needed in GER
 - Indicated in bloody emesis or extreme pain

What about pyloric stenosis?

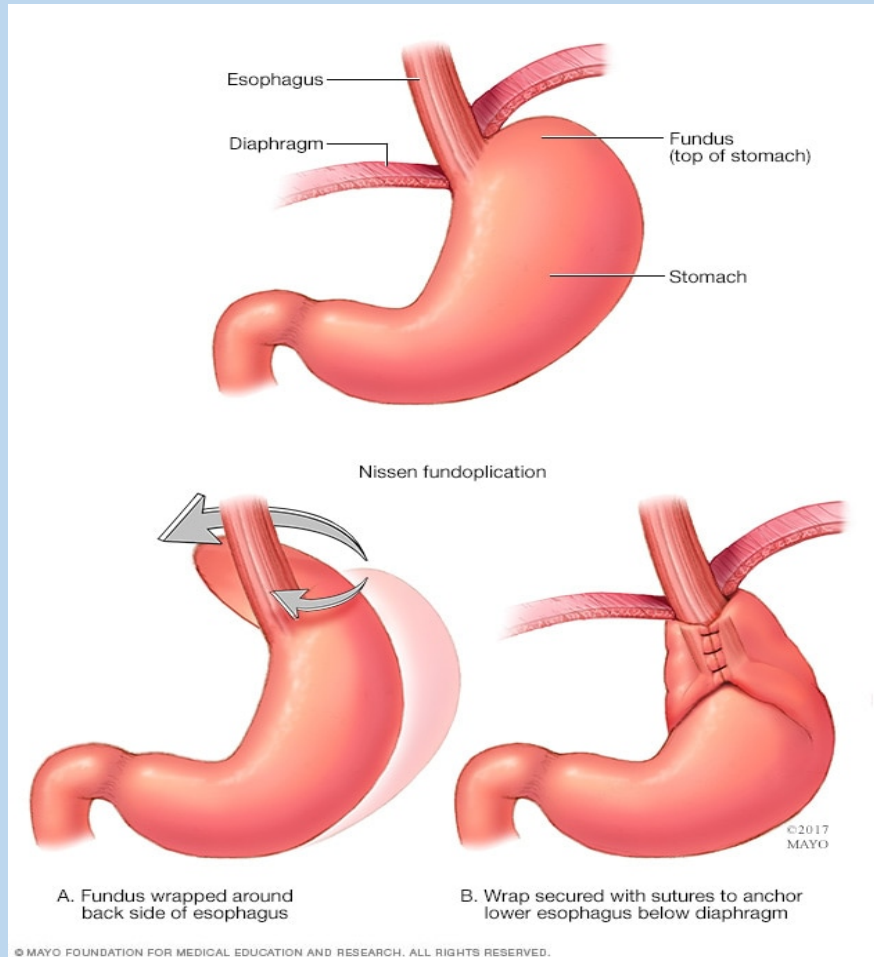
--Projectile vomiting, painless, weight loss, sudden onset within first 2 months of age → get pyloric US



TREATMENTS

- Happy spitters – nothing to do
- Barfing babies – formula change
- Barfing babies /carpet stainers/fussy – formula change, consider meds
 - Zantac 5 mg/kg/day divided by BID
 - 2nd tier – PPI's – Omeprazole 10 mg po QD, Pantoprazole 1 mg/kg/day divided BID, Lansoprazole 7.5 mg po QD
- Big kids with moderate hearburn/vomits
 - Omeprazole, Pantoprazole Lansoprazole
- Big kids who fail 2 generic PPIs – refer to GI to consider workup and escalate rx
- Medically complex children
 - Call MD managing feeds/nutrition and ask
 - Collaborate with peds GI and peds surgery to determine if nissen is indicated

Nissen fundoplications



Indicated **ONLY** for GERD

- NEVER indicated for GER
- **Must have pathologic sequelae of GERD (weight loss, respiratory events) AND**
- **Failed formula/feed changes and multiple medication trials**
- Not routinely performed for kids with neurologic impairment
- Not always done with GT surgery!
- Special considerations for some airway surgical patients, Spinal Muscular Atrophy, or preemies with severe CLD and GER

When to worry and when to refer...

- Babies with GER who are not gaining weight despite formula changes and trial of medications – CALL peds GI, don't just write or fax a referral
- Babies with GERD who are having respiratory events or infections
- Big kids who have tried two medications – CALL peds GI and see if you can get them in within 2 months
- Medically complex children you are not comfortable managing – CALL peds GI
- Medically complex children who has GT feeds that are being managed by a specialist
- GT fed children who are being followed by peds GI already – CALL peds GI and arrange consultation with peds surgery

