

## *OHSU Pediatric Gastroenterology*

# Constipation in Children – Medical Management

Constipation is a common pediatric problem that can be managed at the primary care provider level. The **goal** is for the child to have a regular, soft stool daily. Medications should be given on a regular basis to ensure that this occurs, particularly children with encopresis and soiling where the goal is to stay “clean”. It is important to explain to the family that it may take over a year for this problem to resolve, and that some individuals with slow motility require stool softeners and laxatives throughout their lives.

It is important in assessment to assure that the child has a normal rectal exam.

### **Recommended management approach**

- Maintenance stool softeners and/or laxatives should be in sufficient amounts to elicit a daily, mushy bowel movement. Most children require this aggressive approach for 9-18 months to break the cycle of fear of pain with defecation and stool withholding. Weaning too soon is a common mistake. Miralax is the mainstay of therapy, with nighttime dose of senna product such as Ex-Lax squares for encopretics or neurologically impaired patients with slow bowel motility.
- Behavior modification includes sitting on the toilet for 10-15 minutes after breakfast (to stool before school) and after dinner with a book – no video games on the toilet. We do not suggest toilet sitting for young children not yet toilet trained.
- Modest increases in fiber helps decrease vasillation in stool consistency; breads and cereals should have at least 2 gm of fiber per serving. In older children we use Benefiber; try the chewable tablets. Fiber, plays a minor role in the management of constipation in children, however.
- Bowel cleanouts when the child is backed up with stool can usually be managed at home by doubling medications for 3-4 days. If there is a large rectal plug, the child may also need a daily glycerin suppository for 4 days while oral laxatives are stepped up. Occasionally, with large rectal masses, enemas are also required. Avoid rectal medications in children who have been sexually abused.

Miralax can be used for cleanouts at 1.5 gm/kg/day for 4 days (up to 6 capfuls per day) then drop back to maintenance dosing of 0.4 gm/kg/day.

Enemas and suppositories may be necessary in older children who are impacted with stool. Do not give more than one phosphate containing enema in a day.

*Fleet's phosphate enemas should not be given to infants, and monitored carefully if used in young children due to possibly fatal fluid & electrolyte shifts.*

### **Adjuncts to therapy**

Sugar free gum has sorbitol or xylitol. These sugar alcohols act as laxatives, and may help in the therapy of older children who are non-compliant with medication.

### **Useful tips**

If an encopretic patient presents with persistent soiling despite medication, and if not apparent by abdominal exam, perform a rectal exam to see if there is a large plug of stool that may necessitate more aggressive therapy or dialing back the medication.

Medical non-compliance is best addressed by a behavioral therapist or adolescent specialist.

***Polyethylene glycol 3350 (PEG) or “Miralax” is the mainstay of therapy for constipation in children. It is an osmotic laxative that is contained in PEG-electrolyte solutions like “Go-Lytely” that has been utilized and found to be safe in children. It is available by Rx and over the counter. Taste improves in Crystal Light.***

### **Maintenance dosing Miralax**

- 0.4 gm/kg of body weight per day. (Maximum dose is 102 gm or 6 capfuls per day orally).
- Each 17 gm capful should be mixed in 8 oz of fluid – water, orange juice, sport drinks, & Crystal Light work well. If more aggressive therapy is needed, consider adding senna products at night.

### **Cleanout dosing using Miralax**

- 1.5 gm./kg/day for 4 days, then back to maintenance dosing (maximum dose is 102 gm/day or 6 capfuls/day). Each 17 gm capful should be mixed into 8 oz of fluid.

**Senna** is a stimulant laxative that comes in tablets or syrup. (Syrup contains 8.8 mg of **sennosides**/5 ml). It is helpful as an adjunct to Miralax for children with encopresis or neurologic impairment with slow bowel motility, and is usually given at bedtime. Dosing from The Harriet Lane Handbook:

- 1 mo. – 2 yr. = 2.2 -4.4 **sennosides** at hs; no>8.8 mg/day. (syrup = 8.8 mg/5 ml)
- 2 year to 6 year = 4.4 – 6.6 mg at bedtime (no more than 6.6 mg BID as syrup, or 8.6 BID in tablet form)
- 6 year to 12 year = 8.6 mg tablet at bedtime (no more than 17.2 mg daily).
- 12 years and older = 17 mg tablet at bedtime (no more than 17 mg BID).

Ex-Lax squares are useful for children over 6 years of age, each square contains 15 mg of sennoside.

### **Enemas and Suppositories**

- For fecal impactions in toddlers, consider pediatric glycerin suppositories per rectum to evacuate the lower colon while softening with Miralax orally. Use one suppository per day for 3-4 days. “Baby-

lax” liquid glycerin can be used in its place in infants.

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- In older children, an enema may be necessary to disimpact stool. Care should be taken using phosphate containing enemas in young children; they may cause fatal electrolyte shifts in young children or when given too frequently. Do not give more than one phosphate containing enema/day.
- Mineral oil enemas act as a lubricant and are available commercially. The dose is 10 cc/kg/dose with a maximum of 300 ml per dose.
- To mix normal saline solution for enema, use ½ level teaspoonful of salt to 11 oz of water. Use 10 cc/kg/dose rectally, or maximum of 300 ml for a large child.

### **References**

1. Pashankar, D.S., et al Polyethylene glycol 3350 without electrolytes: a new safe, effective and palatable bowel preparation for colonoscopy in children. J Pediatr 2004; 144: 358-62.
2. Youssef, N.N., et al. Dose response of PEG 3350 for treatment of childhood fecal impaction. J Pediatr 2002; 141: 410-4.

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