

## Ask the Expert: Pediatric Constipation

### Causes

- **Functional:** Primary cause of pediatric constipation. Chronic stool withholding leads to mega-rectum and mega-colon, disrupted gut-brain axis, ineffective stooling pattern, and poor pelvic floor control
- **Organic:** More rare cause of constipation and can include Hirschsprung's disease, spinal differences, anatomic abnormalities, Celiac disease, thyroid disease, medication/anesthesia side effects, and others

### Medications

- **Osmotic Laxatives:** Soften stool by drawing water into the colon. Helpful for children with large stools, hard stools, or difficult to pass stools
  - o **MiraLAX** (PEG 3350/Polyethylene Glycol): **preferred treatment for pediatric constipation**; flavorless powder; must be mixed in clear liquid; most effective if given daily; easily titrated up/down to achieve effect
  - o **Lactulose:** liquid; safe option for babies
  - o **Magnesium Hydroxide:** available as liquid, chewable tablet and gummies, and pill forms
- **Stimulant Laxatives:** Stimulates colon to push stool out. Helpful for children with withholding behaviors or children who have not responded to daily osmotic laxative therapy
  - o **Senna** (Sennosides/Sennakot): available as liquid, chewable chocolate (Ex Lax), and pill forms
  - o **Bisacodyl:** oral and rectal forms

### Dietary and Behavioral Interventions

- **Hydration:** Encourage adequate fluid intake; increase water and decrease milk if possible
- **Scheduled Toilet Sits:** Have the child sit on the toilet for 5–10 minutes after each meal and before bed to attempt to stool
- **Potty Posture:** Children should always have their feet flat on a surface (floor, step stool) and not dangling/toe-touching; knees at 90 degrees; pretend to blow out candles or a pinwheel
- **Positive Reinforcement:** Use a reward system to encourage compliance with scheduled toilet sits and taking medication as recommended

### When to Refer to GI:

- Patients with significant concern for non-functional cause of constipation
- Patients with functional constipation refractory to typical treatments or with other concerning symptoms

### Bowel Cleanout:

*Initial step for clearing out "old" stool and to "reset" the colon. A clean out is considered successful when stools are consistently liquid and clear resembling pickle juice. Children need to stay well-hydrated during cleanout process.*

Cleanout Agent	Notes
<b>MiraLAX</b> (PEG 3350, Polyethylene Glycol: 1 capful = 17g): 2-3 day clean out regimen <ul style="list-style-type: none"> <li>• Age 1–5 years: 1/2 capful mixed in 4-6 oz fluid, given every 3-4 hours; total of 2-3 capfuls/day x 2-3 days</li> <li>• Age 6–11 years: 1 capful mixed in 6-8 oz fluid, given every 3-4 hours; total of 4-6 capfuls/day x 2-3 days</li> <li>• Age 12+ years: 2 capfuls mixed in 8 oz fluid, given every 3-4 hours; total of 8-10 capfuls/day x 2-3 days</li> </ul>	<i>Can add 1-2 doses of Senna or Dulcolax daily during cleanout if needed</i>
<b>Magnesium Citrate</b> <ul style="list-style-type: none"> <li>• Age 2–6 years: 4 oz orally once.</li> <li>• Age 7–12 years: 6–8 oz orally once or split into several doses. Repeat the following day if necessary.</li> <li>• Age 13+ years: 10 oz orally once or split into several doses. Repeat the following day if necessary.</li> </ul>	<i>Give for max of 1-2 days; consider only in children unable to tolerate MiraLAX clean out</i>
<b>Rectal Therapy (Suppositories/Enemas)</b> <ul style="list-style-type: none"> <li>• Age 2–10 years: Pediatric glycerin suppository or pediatric enema once daily for up to 3 days.</li> <li>• Age 11+ years: Adult-size enema or 5-10mg Bisacodyl suppository once daily for up to 3 days.</li> </ul>	<i>Use for presence of rectal stool ball on X-ray or with failure of oral clean out. Fleet/Sodium Phosphate or Glycerin/Saline preferred</i>