

CONSTIPATION

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Many children develop chronic constipation, most commonly with the introduction of solids, around toilet training, and with the start of schooling. Constipated children withhold stool because having a bowel movement is painful. This can enlarge the lower bowel (rectum) and cause soiling of stool in underwear. Because they cannot feel it, children usually have little control over the soiling.

The goal is to have one moderate-sized soft, pudding-like consistency and painless bowel movement every day with no soiling. Most children need treatment for a minimum of 3 - 6 months. Adequate fluid intake is essential for any of the following therapies to be effective.

Fluid Intake

- Increase intake of water and other fluids.
- This helps make bowel movements more frequent and regular.
- The following table gives a recommended fluid intake based on weight - these are guidelines only.
- Individual fluid needs may be different. Extra fluid may be needed if you are very active, as well as during dry winter months and on hot summer days.

Guidelines for Recommended Fluid Intake	
Weight	Fluid needed per day
5 kg (11pounds)	½ litre = 500mL = 16 ounces
10 kg (22 pounds)	1 litre = 1000mL = 32 ounces
15 kg (33 pounds)	1 ¼ litre = 1250mL = 40 ounces
20 kg (44 pounds)	1 ½ litre = 1500mL = 48 ounces
25 -35 kg (55-77 pounds)	1 ¾ litre = 1750mL = 62 ounces
>35 k~ (>77 pounds)	>2 litres = >2000mL = >70 ounces

Diet and Fibre Intake

Encourage your child to eat a non-constipating diet. Have your child eat plenty of fruits and vegetables every day (raw ones are best). Bran is an excellent natural laxative because it has a high fiber content. Have your child eat bran daily by including such foods as the new "natural" cereals, bran flakes, bran muffins, or whole-wheat bread in his diet. Popcorn, nuts, shredded wheat, oatmeal, brown rice, lima beans, navy beans, chili beans, and peas are also good sources of fiber.

Only milk products (milk, cheese, yogurt, ice cream) and cooked carrots have been proven to be constipating. Your child should limit his intake of milk products to 2.5 cups or 18 oz per day.

Don't pressure your child about diet; instead, offer choices and include your child in the decisions about what foods to eat.

- Increase intake of dietary fibre.
- This helps make bowel movements more frequent and regular.
- A diet high in fibre is healthy for the whole family. Choose more whole grains, vegetables, fruits and legumes such as whole wheat bread, bran cereals, broccoli, pears, berries, and baked beans.
- By using the following formula, your child will eventually meet the recommended fibre intake for an adult of 25 to 35 grams per day.

Guidelines for Recommended Fibre Intake	
Age	Formula to calculate fibre needed per day
<2 years	Gradually add foods with fibre into the diet
>2 years	Age in years + 5 = grams of fibre to eat each day. Example for 5 year old: 5+5 = 10 grams fibre each day
Child with constipation	Age in years + 10 = grams of fibre to eat each day Example for 5 year old: 5 + 10 = 15 grams fibre each day

Bathroom Routine

- Establish daily bathroom routine.
- Within 30 minutes after each meal, have your child sit on the toilet for 10 minutes (may need to adjust for age).
- If your child's feet do not touch the floor while sitting on the toilet, use a footstool for support for feet.

Behaviour Tips

- Use a calendar with stickers to keep track of bowel movements to give positive reinforcement. Or keep a stool diary.
- Praise for progress; neutrality for struggles and relapses.
- Avoid punishment and embarrassment. Remember your child has no control over soiling episodes.
- If your child has significant behavioural problems, developmental delays or hyperactivity ask for resources, supports and further assessment.



Medications

If medications are required, your pediatrician will most often recommend: Polyethylene Glycol 3350 (PEG3350, Lax-A-Day, Restoralax) - PEG3350 is tasteless, odourless, grit-free and gluten-free. It is very safe for use in children. It does not stimulate the bowel, won't cause "lazy bowel" and children won't become dependent on it. It acts by drawing water into the intestine, so adequate fluid intake is required.

Each brand has their own measuring device that measures out 17 grams = 25 mL = 1.5 level tablespoons. For other doses, some approximate equivalents would be:

4 grams = 5 mL = 1 level teaspoon

7.5 grams = 10 mL = 2 level teaspoons

12 grams = 15 mL = 1 level tablespoons

20 grams = 30 mL = 2 level tablespoons

Mix powder in approximately $\frac{1}{2}$ -1 cup (125-250mL) of water or other liquid.

Step One: Cleanout

1. Give high dose PEG3350 twice per day for 2-3 days or until bowel movement – dose will be provided by your pediatrician and depends on your child's weight
2. If no bowel movement after 4 days of high dose PEG3350, your pediatrician may recommend an enema.

Step Two: Maintenance

1. Continue PEG3350 once per day – dose will be provided by your pediatrician and depends on your child's weight
2. It is okay to increase or decrease the dose with a goal of 1-2 soft bowel movements per day.
 - Increase or decrease by $\frac{1}{4}$ of a dose every 3-5 days until desired goal is achieved.

Maintenance step needs to be continued for at least 3-6months. Do not stop the PEG3350 until instructed to do so by your pediatrician.

Continue the bathroom routine, dietary and behavioural changes as part of a preventative lifestyle.