



**CHU  
Sainte-Justine**  
Le centre hospitalier  
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Université   
de Montréal

# Functional constipation and encopresis

Information for parents

CHU SAINTE-JUSTINE  
PEDIATRIC OUTPATIENT CLINIC



## **Objectives**

**Better understand functional constipation and encopresis**

**Explain the four aspects of constipation treatment**

**Help manage your child's functional constipation and encopresis.**

## What is constipation?

- ▶ Constipation refers to abnormal bowel function whereby stools are passed less often and are harder.
- ▶ Bowel movement frequency varies from person to person.
- ▶ Constipation can cause abdominal pain, painful bowel movements, bloating, vomiting and loss of appetite.

## What is encopresis?

- ▶ Encopresis refers to the soiling of underwear.
- ▶ Bowel movement frequency varies from person to person.
- ▶ Constipation can cause abdominal pain, painful bowel movements, bloating, vomiting and loss of appetite.

## What causes constipation?

- ▶ In most children, constipation isn't due to illness. **This is known as functional constipation** and is caused by:
  - > Stool retention, i.e., avoiding bowel movements. This is often due to toilet anxiety or fear of pain, which is common during potty training.
  - > Lack of fibre (fruits, vegetables and whole grains) in the diet or insufficient fluid intake.
  - > Lack of physical activity.

## How functional constipation works

(see Appendix 2)

- ▶ When children hold their stool, their rectum becomes distended.
  - > You may notice them clenching their buttocks, tiptoe walking, crossing their legs or sitting with their heels pressed against their perineum.
  - > These actions cause the external sphincter to contract and the stool to move up from the rectum into the colon.
  - > This allows your child to hold more and more stools for longer and longer periods of time. The longer stool stays in the rectum, the harder it becomes, until it forms a fecal impaction. Stool build-up in the rectum and large intestine (colon) stretches and thins bowel muscles, preventing them from contracting properly.

- › When the rectum contains hard stool, small amounts of liquid stool may leak out around the edges and soil the underwear (encopresis). This is sometimes mistaken for diarrhea. Note that encopresis isn't voluntary—it's not an act of defiance.

## Bowel retraining

- ▶ To cure constipation, stool build-up must be eliminated and the muscles of the large intestine must be gradually retrained. The nerves responsible for the urge to defecate must also be retrained.
- ▶ To retrain the bowel, it must be emptied regularly. The process is as follows:
  - › Clear out any large mass of hard stool (fecal impaction)
  - › Eliminate stool from the rectum daily through a toilet routine and laxatives. Retrain the bowel can take months or even years—patience is key.

## What are the four aspects of functional constipation treatment?

- ▶ Medication
- ▶ Toilet routine
- ▶ Diet
- ▶ Physical activity

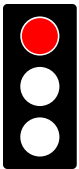
## Medication

Your doctor has prescribed a laxative. Polyethylene glycol powder (PEG 3350 [Lax-A-Day®, Emolax®]) is the safest and best tolerated laxative for treating functional constipation. It works in the bowels and isn't absorbed by the body, so there's no risk of developing tolerance. We recommend using three levels of treatment depending on your child's needs: red light, yellow light and green light. To know what treatment to use, you'll have to monitor stool consistency (see Bristol Scale in Appendix 4) and stool frequency (see calendar in Appendix 6). If you have any questions, please contact your doctor or the pediatric clinic nurse.



## Tips

- ✓ Use a teaspoon measure:  
1 teaspoon = 5 mL = 4 grams of powder.
- ✓ Diluting the polyethylene glycol: 13g in 90–180 mL of liquid,  
17 g in 120–240 mL of liquid
- ✓ Suitable liquids: water, juice, milk, apple sauce



## Red light | Emergency treatment (bowel cleansing)

**Use if your child** has fecal impaction, bloating, abdominal pain.

- ▶ Use a high dose of PEG 3350 for three to six days.

## Note

- ▶ For this treatment, it's important to use the calendar (see Appendix 6) and the Bristol Scale to monitor stools. If your child has had few or no bowel movements after six days, you should contact the clinic nurse.
- ▶ It's normal for your child to have loose stools. We recommend continuing this treatment for at least three days.
- ▶ After bowel cleansing, you can move on to maintenance treatment (GREEN LIGHT) if the stool is Bristol Type 3 or 4 or to rescue treatment (YELLOW LIGHT) if the stool is Bristol Type 1 or 2.
- ▶ You should notify your child's school so your child can go to the bathroom whenever they need to.
- ▶ Make sure to pack a change of clothes.



### Yellow light | Rescue treatment

**Use if your child** has less than one bowel movement per day, painful bowel movements or Bristol Type 1 or 2 stools.

- ▶ Use PEG 3350 daily
- ▶ Double the maintenance dose for 10 days
- ▶ Contact the clinic nurse if constipation persists
- ▶ When your child is having Bristol Type 3 stools at least once a day, switch to maintenance treatment (GREEN LIGHT).



### Green light | Maintenance treatment

**Use if your child** passes Bristol Type 3 stools at least once a day. Continue laxative treatment for as long as directed by your doctor.

- ▶ Use PEG 3350 daily at the dose recommended by your doctor
- ▶ Maintenance treatment promotes bowel regularity and facilitates bowel retraining.
- ▶ If the stools are too soft (Bristol Type 4 or 5), you can adjust the laxative treatment by:
  - > Decreasing the amount of powder in the same amount of water
  - > Giving the laxative every other day

### *Please keep in mind*

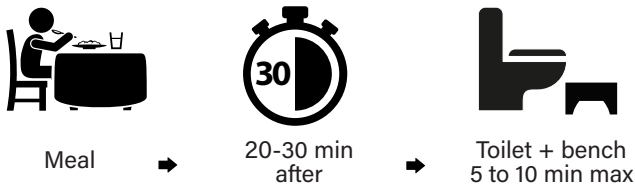
- ▶ Fecal incontinence can become more frequent at the beginning of treatment. This should improve over time as fecal impaction resolves.
- ▶ Stools may become more watery with treatment. If so, don't discontinue the treatment—reduce the amount of powder.
- ▶ PEG 3350 works by drawing water into the bowel to make bowel movements easier. There's no risk that the bowel will become lazy or dependent. This treatment can be used safely for many years and at any age.
- ▶ If you have any concerns, please contact the pediatric clinic nurse.

## Toilet routine

When it comes to bowel retraining, the toilet routine is key:

- ▶ Have your child sit on the toilet about 20–30 minutes after a meal. This is important to retrain the physiological gastrocolic reflex (the colon empties when the stomach distends with food).
- ▶ Leave your child on the toilet for 5–10 minutes, even if they don't have a bowel movement.
- ▶ Their feet should be flat on a surface so they can use their abdominal muscles more effectively. If your child is too small, put a stool under their feet (see Appendix 5).
- ▶ Make sure to make it a positive experience for you child. Establish a reward system can be useful.
- ▶ Avoid distractions (e.g., screens)—they can make it hard to focus on bowel sensations.

Create a calendar to track bowel movements. This helps provide motivation and positive reinforcement.



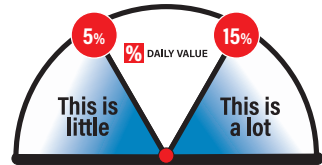
## Diet

- ▶ Dietary fibre is a member of the large family of carbohydrates (sugars). You can't digest it—it just goes through the digestive system. Its purpose is to sweep the bowels clean.
- ▶ There are two types of fibres:
  - › Soluble: Become viscous when in contact with liquids, facilitating bowel movements.
  - › Insoluble: Absorb large amounts of water and increase stool volume, facilitating bowel movements.
- ▶ Basically, fibre is like a sponge that makes it easier for stool to travel from one end of the intestine to the other.

- Fibre is found only in plant-based foods, mainly in the skin or husk of plants. For example, in the peel of fruits and vegetables and in the husk of grains (whole wheat, brown rice, whole oats, quinoa). Legumes, nuts and seeds are also very good sources of fibre.
- Foods of animal origin, such as meat, eggs, seafood and dairy, contain no fibre. However, these foods are part of a balanced diet.
- Fibre should be increased gradually as it can cause bloating, gas and stomach upset.
- Add oat bran to oatmeal and breakfast cereals and use whole-wheat flour for homemade dessert recipes.
- Remember that a loaf of bread can have many different grains. If they're not whole grains, the bread is no different than white bread.

### Learn to read nutrition labels:

- You want at least 2 g of fibre per serving, and ideally 4 g of fibre per serving or more.
- To easily understand percentage of daily value: **5% is little, 15% is a lot.**



### Tips and tricks

#### Make sure your child eats high-fibre foods at every meal and snack:

- ✓ Offer fruits and vegetables with the skin on.
- ✓ Eat more plant-based protein meals.
- ✓ Limit intake of fruit or vegetable juices, as they contain little or no fibre.

#### Pick the right grain products:

- ✓ Choose whole grains: hulled barley, millet, whole-wheat cous-cous and pasta, bulgur, quinoa.
- ✓ Look for the words: whole grain, oat bran, stone-ground flour, whole-grain flour.



<b>DIETARY SOURCE</b>	<b>PORTION</b>	<b>FIBRE INTAKE (g)</b>
<b>Grain Products</b>		
Whole wheat pasta, cooked	½ cup or 125 ml	2
Oat or wheat bran	½ cup or 125 ml	5-10
Whole wheat bread	1 slice or 30 g	2-3
Brown rice, barley or quinoa, cooked	½ cup or 125 ml	2-3
Ground flaxseed	2 tbsp or 30 ml	4
All-Bran Buds breakfast cereal	¼ cup or 60 ml	8
<b>Fruits and Vegetables</b>		
Apple or pear, with peel	1 medium	4-5
Berries (strawberries, blueberries, raspberries)	½ cup or 125 ml	2-4
Mangue, fraîche ou congelée	½ cup or 125 ml	2
Dried fruits (raisins, apricots, cranberries)	¼ cup or 60 ml	2-3
Brussels sprouts, cooked	½ cup or 125 ml	3
Carrots, raw	½ cup or 125 ml	1,5
Baked potato, with peel	1 medium	4
<b>Plant-based Proteins</b>		
Legumes (lentils, chichpeas, white, red and black beans)	½ cup or 125 ml	6-9
Soybeans (edamame)	½ cup or 125 ml	4
Nuts (peanuts, pistachios, pecans)	¼ cup or 60 ml	1-3
Seeds (sunflower, sesame)	¼ cup or 60 ml	4-5
Peanut butter, almond butter	2 tbsp or 30 ml	1-2

Reference: Canadian Nutrient File

## RECOMMENDED ADEQUATE FIBRE INTAKE

Age (years old)	Sex	Daily amount (g/day)
1 to 3	Girls and boys	19
4 to 8	Girls and boys	25
9 to 13	Girls	26
	Boys	31
14 to 18	Girls	26
	Boys	38

Reference: DRI, Health Canada

## RECOMMENDED ADEQUATE WATER INTAKE

Age (years old)	Sex	Daily amount (mL/day)
1 to 3	Girls and boys	1 300
4 to 8	Girls and boys	1 700
9 to 13	Girls	2 100
	Boys	2 400
14 to 18	Girls	2 300
	Boys	3 300

Reference: DRI, Health Canada

## Water Intake

- ▶ Your child needs to drink enough fluids to help fibre do its job.



### Tips and Tricks

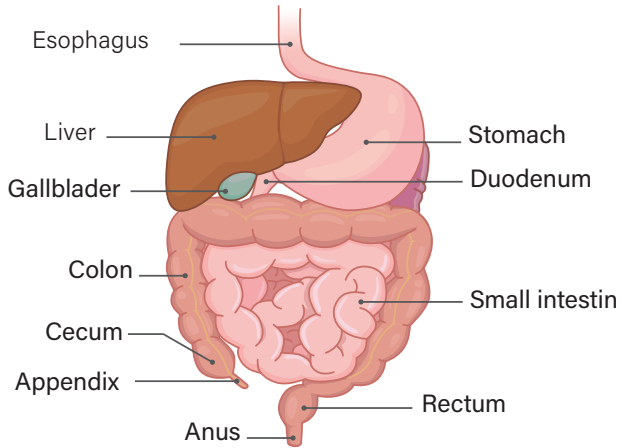
**Make sure your child eats high-fibre foods at every meal and snack:**

- ✓ Give them a water bottle or a colourful cup.
- ✓ Put a pitcher of water on the table during meals.
- ✓ Add some orange, strawberry or cucumber slices, mint or even basil.

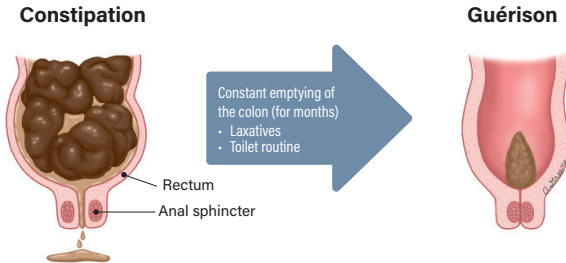
## Physical activity

- Being physically active every day stimulates bowel movement.
- It's recommended that children and teens get 60 minutes of moderate to high intensity physical activity each day.
- Encourage active travel such as walking to school or biking to a friend's house.
- Limit screen time to two hours per day.

## APPENDIX 1 DIGESTIF SYSTEM



## APPENDIX 2 HOW CONSTIPATION AND BOWEL RETRAINING WORK

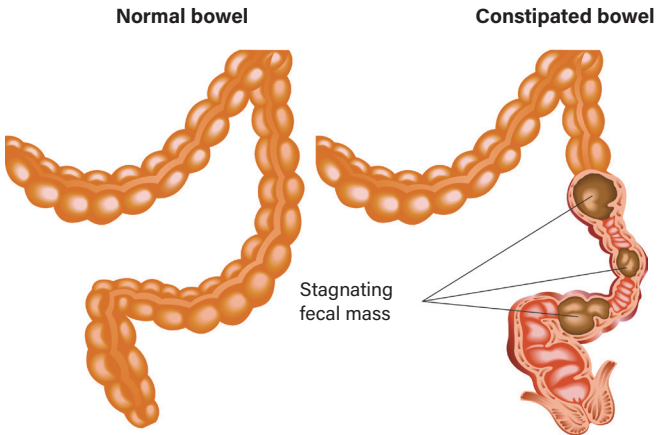


- > Child holds the stool because of the pain
- > Muscles and nerves are stretched, thinned and not working properly
- > Hard stools build up
- > Soft stools leak through the sphincter (solling)

- > Muscles are thicker and stronger
- > Nerves sense the urge to defecate
- > Sphincter can prevent leakage

Source: UpToDate

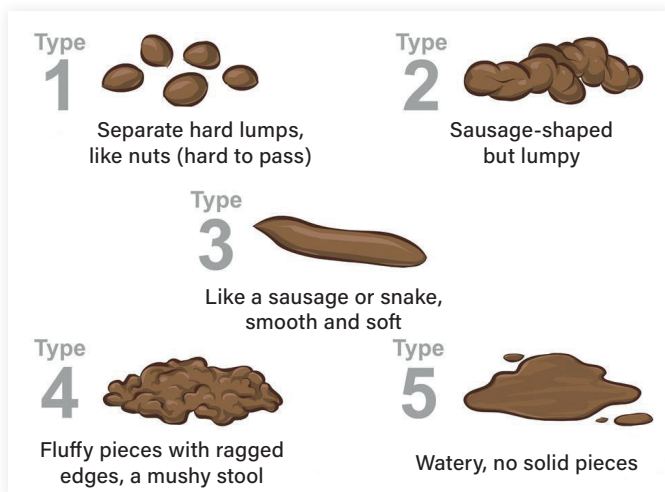
## APPENDIX 3 FECAL IMPACTION



## APPENDIX 4 STOOL CONSISTENCY SCALE

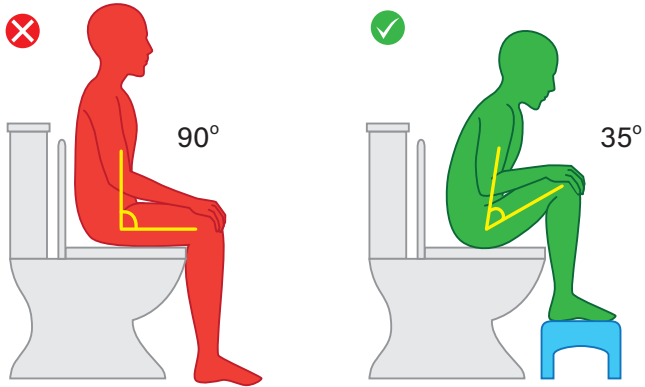
The stool consistency of a constipated child is usually Bristol Type 1 or 2

### Modified Bristol Stool Chart for Children

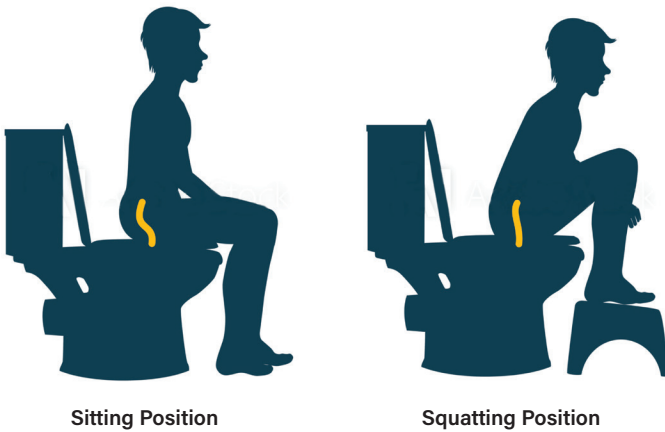


Source: [aboutkidshealth.ca](http://aboutkidshealth.ca)

## APPENDIX 5 TOILET POSITION



## ANORECTAL ANGLE



Squatting is the natural position for passing stool.

# APPENDIX 6

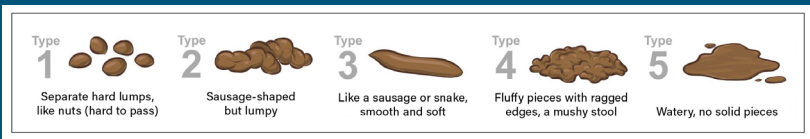
## STOOL CALENDAR

Date ▶	from to					
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
*	*	*	*	*	*	*
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
*	*	*	*	*	*	*
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
*	*	*	*	*	*	*
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
*	*	*	*	*	*	*

Write down the number of bowel movements

Note the stool's appearance (using the Bristol Scale) and your child's symptoms (e.g., painful bowel movements, abdominal pain, loss of appetite).

### Modified Bristol Stool Chart for Children



Source: [aboutkidshealth.ca](https://aboutkidshealth.ca)

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