

# Constipation in children

# What is constipation?

Constipation is quite common, affecting about 30% of school-aged kids. Serious medical causes are rare.

Constipation occurs when a child has difficulty passing a stool (poo) or experiences less frequent bowel movements (poos) than usual.

It's important to consider the child's age, diet, and developmental stage when looking at how frequently they have a bowel movement and what it looks like, comparing it to what's normal.

For example, a breastfed baby might have a bowel movement after each feed, whereas a bottle-fed baby or older child usually has a bowel movement every 1 to 2 days.

### Key signs of constipation are:

- Having less than 3 bowel movements per week.
- Experiencing more than one episode of accidental stool leakage in a week.
- Dealing with hard stools or struggling to maintain regular bathroom visits.
- Holding on behaviours that makes the stool harder and more difficult to pass.
- Feeling pain while passing a stool.

This can often stem from a combination of poor diet, inadequate fluid intake, and insufficient physical activity.

When there are large, hard stools lingering in the digestive system, it can lead to discomfort and even a loss of the natural urge to go, resulting in unexpected accidents or 'skid marks'.

Remember, children aren't intentionally causing this; they might not even realise when it's happening.

Serious medical causes are uncommon. It can sometimes arise after a child has experienced a painful bowel movement.

Symptoms are variable and may include:

- infrequent hard, large, or painful stools
- tummy pain
- loss of appetite and irritability.



If it persists some children develop a fear of having a bowel movement resulting in 'holding-on' behaviours. 'Holding on' behaviours can make the stool harder and often also cause overflow soiling (accidents).

Sometimes you may observe fresh blood as a result of a tear or cut (fissure). This occurs around the bottom of the anus. This can be painful and if it happens, please see a doctor.

# Retentive (abnormal) posturing and 'holding on' behaviours can include:

- squatting
- crossing the ankles
- stiffening of the body
- holding onto a parent or furniture
- flushing
- sweating
- crying or hiding to have a bowel movement e.g. behind a couch
- refusing to sit on the toilet.

#### When does it happen

Common times for constipation to occur include:

- changing from breast feeds to formula or cow's milk
- starting solids
- toilet training when the child is not ready
- starting school
- after a bout of gastroenteritis.

#### Treatment

The aim is to pass regular, soft, painless stools but this takes time. This takes several weeks to months to overcome. If treatment stops too soon, it can often recur.

Treatment usually includes:

- a healthy diet with enough fibre
- adequate fluid intake
- regular toileting including the use of a poo diary
- regular physical activity
- medications.

#### Fluid

Fluids help make bowel motions softer. If you give your child more fibre, make sure they are drinking the right amount of fluid to stay healthy.

There is no need to increase water intake more than the body needs unless your child shows signs of being dehydrated.

# Children need approximately the following fluids each day:

Babies 0-6 months 0.7L/day Infants 7-12 months 0.8L (with 0.6L as fluids) Girls and boys 1-3 years 1L (about 4 cups) Girls and boys 4-8 years 1.2L (about 5 cups) Girls 9-13 years 1.4L (about 5-6 cups) Boys 9-13 years 1.6L (about 6 cups) Girls 14-18 years 1.6L (about 6 cups) Boys 14-18 years 1.9L (about 7-8 cups)

It is useful to purchase a child appropriate clear water bottle with measurements on the side to assist with monitoring fluid intake.

The best time for drinks is between or after meals.

- Drinks given before meals will fill up your child's stomach making them less hungry for food.
- Water is the best choice of drink for your child, as it will maintain their appetite for food. Cordial, soft drinks and fruit juice have high sugar content and tend to reduce appetite.
- Milk is a very nutritious drink for children but limit intake to three small glasses (500-600mL) per day.
- Excess milk intake can lead to iron deficiency.

# Physical activity

Regular physical activity helps maintain regular bowel motions. Make sure your child has plenty of time to play and be active each day.

Even simple exercise like walking, bouncing on the trampoline or riding a bike will help.

# Toileting

Children with constipation need to develop the habit of sitting on the toilet regularly. This helps the muscles relax and the stool to pass.

- Children should be encouraged to sit on the toilet after each main meal, as this is when the bowel is most active. They should sit for 3 to 5 minutes, even if they do not feel the urge to go. When they do pass a stool, they will recognise the feeling.
- It is important to make sure your child's feet are supported (for example on a box or step) and not dangling in the air. This allows your child to use their abdominal muscles to push, but it's important they don't strain.
- Do not put pressure your child to have a bowel movement.
- Your child needs to feel relaxed and not in a rush.
- Using a sticker or reward chart can help some children.

#### Proper positioning on the toilet for a child



This illustration shows proper positioning on the toilet for a child. A step stool is under the child's feet so that his knees are above the level of his hips. This position helps to relax the pelvic muscles, which makes it easier to pass the bowel movement.

#### When to seek help

If you have tried the strategies discussed above and your child is still constipated, your child may need medication. See your GP or paediatrician.

#### Disimpaction

Faecal impaction happens when stools build up and get stuck in a child's lower bowel. This often occurs because the stool is too hard or painful to pass easily.

When this happens, children might try to hold in their stool and avoid going to the toilet.

This can cause discomfort and other issues. If the child is experiencing faecal impaction, please contact your health care provider for advice.

Disimpaction is a way to clear out this build-up and help the child's digestive system get back to working properly. It may take 3 to 5 days for the first stool and it may be a large hard mass, or a brown fluid that appears like diarrhoea.

This is just emptying of the rectum, and it will take several days until all the stools are passed. Then the child's bowel can start to recover and return to normal; this takes several weeks to months.

#### Disimpaction

Movicol-Half®, Movicol Junior® 1–12 months, oral half to 1 sachet daily.

- 1–6 years, oral 2 sachets daily on day 1, then 4 sachets daily on days 2 and 3, then 6 sachets daily on days 4 and 5, then 8 sachets daily on days 6 and 7.
- 6–12 years, oral 4 sachets on day 1, then 6 sachets on day 2, then 8 sachets on day 3, then 10 sachets on day 4, then 12 sachets daily on days 5–7.

Movicol ®

• 12–18 years, oral 8 sachets daily (take within 6 hours); for up to 3 days.

To avoid increased risk of cardiovascular disease due to salt content, do not exceed >2 sachets per hour of Movicol <sup>®</sup>.

Alternatively, if Movicol is not tolerated, use Osmalax Number of Osmolax<sup>®</sup> small scoops (8.5 g) 2 Day 1 3 4 5 6 7 Age 2-6 years 2 3 3 5 6 6 4 3 4 6 8 9 9 9 6-12 years

After disimpaction, maintenance treatment should be started immediately, with a regimen that produces a daily soft stool. The aim is to empty the bowel and keep it empty, by ensuring the child passes soft, painless stools.

If treatment is stopped too soon, the problem might recur.

A general rule of thumb is that a child requires treatment to maintain soft stools for as long as they have been constipated (e.g., if constipated for 18 months, it is likely they will require treatment for 18 months).

We try and aim for number 4 on the Bristol Stool Chart.



Laxatives are available over the counter at pharmacies, but it is not recommended children take laxatives without medical advice.

First line treatment				
Children < 2 years; stool softener and / or osmotic laxative				
Children > 2 years; osmotic laxative				
Stool softeners				
Poloxamer	< 6 months: 0.3mL orally three times a day			
Comes in a liquid. It makes the stool softer by helping water mix	6 to 18 months: 0.5mL orally three times a day			
with it. It may also make the tummy produce more fluids.	18 to 36 months: 0.8mL orally three times a day			
Available as:				
Coloxyl <sup>®</sup> Drops				
Dereffin 500/ emulaien				
Paraffin 50% emulsion (Liquid paraffin)	1 to 6 years: 10-15mL orally daily			
	> 6 to12 years: 20mL orally daily			

Comes as a thick liquid, which makes poo slippery to help it move through easier. <i>There is a</i> <i>risk of aspiration if the child</i> <i>lies down within 2 hours of</i> <i>taking the medication.</i> Available as: • Parachoc <sup>®</sup>	>12 years: 40mL orally daily
Osmotic laxatives	
Macrogol 3350 with electrolytes (preferred therapy) Comes as a powder and various flavours. It works by attracting water from the rest of your body into your bowels, which helps increase the size and soften your stool. This process then stimulates your bowels to begin working, aiding in the natural movement of stool and facilitating its passage. It contains electrolytes to minimise electrolyte and water loss. Available as: • Movicol <sup>®</sup> • Movicol Junior <sup>®</sup> • Macrovic <sup>®</sup>	<ul> <li>Movicol- Half<sup>®</sup>, Movicol Junior<sup>®</sup></li> <li>1 to12 months: ½ to 1 sachet orally daily.</li> <li>1 to 6 years: initially 1 sachet orally daily (maximum 4 sachets daily).</li> <li>6 to12 years: initially 2 orally sachets daily (maximum 4 sachets daily).</li> <li>Movicol<sup>®</sup> Adult</li> <li>12 to18 years: initially 1 sachet orally daily (maximum 3 sachets daily).</li> </ul>
Macrogol 3350 (no electrolytes) Comes in a powder form and has no flavour, salt or sugar. It can be mixed with your child's favourite drink, whether it's hot or cold. It works by adding more water to the bowel, which softens hard poops, makes them easier to pass, and helps them come out more regularly. Available as: • Osmolax <sup>®</sup>	<ul> <li>Using measure provided: <ul> <li>one level small scoop is 8.5g</li> <li>one level large scoop is 17g</li> <li>to be given in 120 to 250mL of water (one cup).</li> </ul> </li> <li>2 to 6 years: 8.5g (small scoop) orally once daily in 120mL water.</li> <li>6 to 12 years: 17g (large scroop) orally once daily in 250mL water.</li> <li>Over 12 years: 17g orally once daily in 250mL of water (this can be increased to up to 2 doses if required).</li> </ul>

Lactulose	Initial dose: adjust according to response.
Comes as a sweet-tasting liquid and works by softening the poo and stimulating the bowel to empty. It may taste better mixed with juice or milk. It can cause smelly wind (farting). Available as:	1to12 months: 2.5mL (two and a half) orally twice daily.
	1 to 5 years: 2.5mL (two and half) to 10mL orally twice daily.
	5 to18 years: 5 to 20mL orally twice daily.
	Up to 1.5 (one and a half) mL/kg twice daily.
<ul> <li>Actilax<sup>®</sup></li> <li>Dulose<sup>®</sup></li> </ul>	Maximum is daily dose is 60mL.

*Please note:* Studies do not support the use of pre or probiotics in the treatment of childhood constipation.

# Stimulants

If your child's stool is very soft and they are still back logged, stimulants will help to pass larger stools.

If your child is stopping themselves from passing stools stimulants will make it difficult to hold onto stools and aid in correcting learned withholding behaviours.

<ul> <li>Senna</li> <li>It works by stimulating the bowel to empty. It is available in tablets form.</li> <li>Available as: <ul> <li>Senna-Gen<sup>®</sup>, Senokot<sup>®</sup> - 7.5mg tablets</li> <li>Laxettes with Senna<sup>®</sup> - 12mg tablets</li> <li>Laxette with Sennosides<sup>®</sup> - 12mg squares)</li> </ul> </li> </ul>	2 to 6 years: 3.75 to 7.5mg orally at bedtime 6 to 12 years: 7.5 to 15mg orally at bedtime 12 to18 years: 7.5 to 30mg orally at bedtime
Bisacodyl Comes as a tablet, suppository and enema and works by stimulating the bowel to empty. It can cause tummy cramps. Available as: • Bisalax <sup>®</sup> , Dulcolax <sup>®</sup> - 5mg tablets	ORAL 3 -12 years: 5 - 10mg orally at night 12-18 years: 5 - 15mg orally at night

# Fibre

Fibre is the part of plant food that is not fully digested by the body. Examples of foods containing fibre include fruit, vegetables, grains, breads, cereal products, legumes, nuts, and seeds.

Fibre is important because it adds bulk to stools, making them softer and therefore easier to pass.

While it is important that your child eats enough fibre each day, giving too much fibre can make constipation worse. Aim for the recommended amount of fibre for your child. The fibre counter at the end of this resource can help you add up how much fibre your child is having.

#### How much fibre does my child need?

Age	Fibre per day
1-3 years	14g
4-8 years	18g
9-13 years (girls)	20g
9-13 years (boys)	24g
14-18 years (girls)	22g
14-18 years (boys)	28g

Reference: Nutrient Reference Values for Australia and New Zealand (2005)

Alternatively, an easy way to decide how much fibre is enough for your child is to take your child's age and add 10 (age + 10). For example, if your child is 5 years old then they will need 15 grams of fibre per day.

What is a serve of fruit?

Or only occasionally:

A standard serve is about 150g (350kJ) or:

1 medium apple, banana, orange or pear

2 small apricots, kiwi fruits or plums

125ml (1/2 cup) fruit juice (no added sugar)

1 cup diced or canned fruit (no added sugar)

30g dried fruit (for example, 4 dried apricot halves, 11/2 tablespoons of sultanas)

cup

#### Ways to increase fibre

One way to increase the fibre in your child's diet is to make sure they are eating enough grain foods, fruit and vegetables.

The tables below show how many serves of each of these food groups your child should be having and explains a serve size.

Compare your child's diet to these recommendations and increase the amount they are having if you need to.



\*With canned varieties, choose those with no added salt

\*Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties

Recommended average daily number of serves from each of the five food groups*						Additional serves for more active, taller or older children and adolescents
Age	Vegetables and legumes / beans	Fruit	Grain (cereal) foods, mostly wholegrain	Lean meat and poultry, fish, eggs, nuts and seeds, and legumes / beans	Milk, yoghurt, cheese and/or alternatives (mostly reduced fat)	Approx. number of additional serves from the five food groups or discretionary choices
Toddlers						
1 - 2	2 - 3	1/2	4	1	1-1½	
Boys						
2 - 3	2 1⁄2	1	4	1	1 1/2	0 - 1
4 - 8	4 1/2	1 1/2	4	1 1/2	2	0 - 2 ½
9 - 11	5	2	5	2 1/2	2 1/2	0 - 3
12 - 13	5 1/2	2	6	2 1/2	3 1/2	0 - 3
14 - 18	5 1/2	2	7	2 1/2	3 1/2	0 - 5
Girls						
2 - 3	2 1/2	1	4	1	1 1/2	0 - 1
4 - 8	4 1/2	1 1/2	4	1 ½	1 1⁄2	0 - 1
9 - 11	5	2	4	2 1/2	3	0 - 3
12 - 13	5	2	5	2 1/2	3 1/2	0 - 2 ½
14 - 18	5	2	7	2 1/2	3 1/2	0 - 2 ½

Reference: Australian Dietary Guidelines 2013

# Some simple ways to add fibre to your child's diet include:

- Choose wholemeal or multigrain bread and wraps, or white bread with added fibre.
- Choose wholegrain breakfast cereals, (e.g. Weetabix<sup>®</sup>, Vita-brits<sup>®</sup>), porridge, natural muesli.
- Choose wholemeal pasta and brown rice.
- Avoid plain biscuits, cakes, pikelets and buns. Instead offer wholegrain crackers and biscuits with dried fruit, rolled oats or seeds.
- Include a range of fresh fruit and vegetables. Leave skin on where possible.
- Add legumes (e.g. lentils and beans) to bolognaise, shepherd's pie, curries, stews and soup.
- Replace white flour with wholemeal flour in recipes, for example use half wholemeal and half white flour when baking.
- Add dried or fresh fruit and nuts or seeds to baking.
- Limit snacks with poor nutritional value, as these are usually low in fibre, (e.g. chips, biscuits, cakes, lollies). Offer fibre-containing snacks instead.
- Modify your favourite recipes by using wholemeal flours, grains and dried fruits.

## Fibre counter

Miscellaneous

Popcorn

Corn chips

Food	Serve Size	Fibre (g)	Food	Serve Size	Fibre (g)
Breads & grains			Fruit		
Wholemeal bread	30g / 1 slice	2	Apple	1 medium	3
White bread	28g / 1 slice	1	Orange	1 medium	3.5
White high fibre bread	28g / 1 slice	1.5	Mango	1 medium	5
Pita bread	60g	2.5	Prune	6 medium	4.5
Fruit bread	30g / 1 slice	1	Banana	1 small	2.5
Cornflakes	1 cup	1	Grapes	100g	1
Bran flakes	1 cup	6.5	Sultanas	30g	1.5
Weetbix <sup>®</sup>	30g / 2 biscuits	3.5	Dried apricot	6 small	2.5
All Bran <sup>®</sup>	40g	11.5	Canned fruit	1 cup	3.5
Fruity Bix <sup>®</sup>	10 pieces	3.6	Strawberries	½ punnet	4.5
Muesli	60g / ½ cup	6	Vegetables		
Sultana Bran <sup>®</sup>	1 cup	2.9	Potato (no skin)	100g	1
Porridge	½ cup (raw)	4	Potato (with skin)	100g	1.7
Just Right	1⁄4 cup	2	Broccoli	100g	4
Rice Bubbles <sup>®</sup>	30g / 1 cup	0.5	Corn on cob	150g	5
White rice (cooked)	1 cup	1.5	Carrot (cooked)	½ cup	3
Brown rice (cooked)	1 cup	3	Green beans	100g	2.5
White pasta (cooked)	1 cup	3	Peas (frozen)	½ cup	4.5
			Durit	05	4.5
Wholemeal pasta (cooked)	1 cup	8.5	Pumpkin	85g	1.5
Milk Arrowroots®	2 biscuits	0.5	Tomato	1 medium	2
SAO crackers	3 biscuits	0.5	Zucchini	1 medium	1.5
Wholemeal crackers	6 biscuits	2	Salad	1 cup	1 - 2
Rice cakes	2 cakes	0.5	Baked beans	220g	10.5

*Nuts* (children over 3 years)

1 tablespoon

30g

50g

30g

2

2.5

3

4.3

Peanut butter

Peanuts

Cashews

Almonds

Source: Nutrition Education Materials Online, Fibre for Children, September 2013

1

5

1 cup

50g

# Infants

For babies under 12 months, there is no recommended daily fibre intake. If you think your baby is constipated, you should consult your family doctor or child health nurse.

- If your baby drinks formula, make sure this is made up correctly.
- For infants over six months of age, adding more fruit and vegetables to their diet might help.
- You can give your baby stewed prunes or apricots up to three tablespoons, three times each week.

You can also try prune juice diluted 50:50 with water (e.g. 10mL of prune juice and 10mL of water). Start by giving 1mL and increase the amount until your baby is able to pass a soft stool.

#### Other resources

 Continence Foundation of Australia, Helpline: 1800 33 00 66. You can request to speak to a continence specialist nurse. Enuresis Resource Information Centre UK <u>https://eric.org.uk/</u> International Children's Continence Society <u>https://www.ics.org/</u>



Government of Western Australia Child and Adolescent Health Service



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