

Constipation in children

Constipation is when a child has a hard poo (stool) or is not able to go to the toilet regularly. It is common, affecting up to 30% of school-aged children, but medical causes are rare. It is more likely to be due to a combination of poor diet, not enough fluid and lack of exercise which causes your child to pass infrequent hard stools that are often painful.

If this happens often some children develop a pattern of holding their poo in that results in chronic constipation. The bowel can become distended and lose its elasticity and feeling. Your child may lose the urge to poo which results in 'accidents' or 'skid marks'. They are not being naughty, they just don't know when it will or if it has happened.

It is normal for babies to poo anywhere up to 12 times per day to only once per week.

When does it happen

Common times for constipation include:

- changing from breast feeds to formula
- starting solids
- toilet training when the child is not ready
- starting school
- after a bout of gastroenteritis

Symptoms

Symptoms are variable and may include infrequent hard stools, tummy pain, loss of appetite and irritability. If it persists some children develop a fear of pooing resulting in holding-on behaviours that make the stool harder and often also cause overflow soiling.

Signs of holding on

Holding on behaviours can include squatting, crossing the ankles, stiffening of the body, holding on to a parent or furniture, flushing, sweating, crying or hiding to do a poo e.g. behind a couch.

Sometimes a tear or cut (fissure) can occur around the bottom (anus). This is very painful and if it happens please see your doctor.

Treatment

The aim is to pass regular, soft, painless stool but this takes time. 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**



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 poo, makes 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)

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 on the right and on the next page 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.

Reference: Australian Dietary Guidelines 2013

What is a serve of fruit?

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

- 1 medium apple, banana, orange or pear
- 2 small apricots, kiwi fruits or plums
- 1 cup diced or canned fruit (no added sugar)

Or only occasionally:

- 125ml (½ cup) fruit juice (no added sugar)
- 30g dried fruit (for example, 4 dried apricot halves, 1½ tablespoons of sultanas)



What is a serve of vegetables*?

A standard serve is about 75g (100–350kJ) or:

- ½ cup cooked green or orange vegetables (for example, broccoli, spinach, carrots or pumpkin)
- ½ cup cooked dried or canned beans, peas or lentils
- 1 cup green leafy or raw salad vegetables
- ½ cup sweet corn
- ½ medium potato or other starchy vegetables (sweet potato, taro or cassava)
- 1 medium tomato

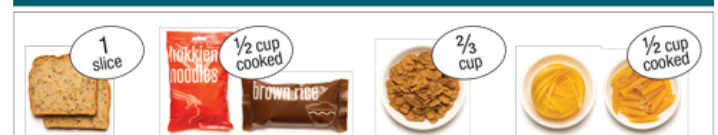


*With canned varieties, choose those with no added salt

What is a serve of grain* (cereal) food?

A standard serve is (500kJ) or:

- 1 slice (40g) bread
- ½ medium (40g) roll or flat bread
- ½ cup (75–120g) cooked rice, pasta, noodles, barley, buckwheat, semolina, polenta, bulgur or quinoa
- ½ cup (120g) cooked porridge
- ⅔ cup (30g) wheat cereal flakes
- ¼ cup (30g) muesli
- 3 (35g) crispbreads
- 1 (60g) crumpet
- 1 small (35g) English muffin or scone



*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
	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	½	4	1	1-1½	
Boys						
2-3	2 ½	1	4	1	1 ½	0-1
4-8	4 ½	1 ½	4	1 ½	2	0-2 ½
9-11	5	2	5	2 ½	2 ½	0-3
12-13	5 ½	2	6	2 ½	3 ½	0-3
14-18	5 ½	2	7	2 ½	3 ½	0-5
Girls						
2-3	2 ½	1	4	1	1 ½	0-1
4-8	4 ½	1 ½	4	1 ½	1 ½	0-1
9-11	5	2	4	2 ½	3	0-3
12-13	5	2	5	2 ½	3 ½	0-2 ½
14-18	5	2	7	2 ½	3 ½	0-2 ½

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. Weetbix, Vitabrits, porridge, 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 beans, legumes and lentils 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.

Fibre Counter

Food	Serve Size	Fibre (g)	Food	Serve Size	Fibre (g)
<i>Breads & grains</i>			<i>Fruit</i>		
Wholemeal bread	30g/1 slice	2.0	Apple	1 medium	3.0
White bread	28g/1 slice	1.0	Orange	1 medium	3.5
White high fibre bread	28g/1 slice	1.5	Mango	1 medium	5.0
Pita bread	60g	2.5	Prune	6 medium	4.5
Fruit bread	30g/1 slice	1.0	Banana	1 small	2.5

Cornflakes	1 cup	1.0	Grapes	100g	1.0
Bran flakes	1 cup	6.5	Sultanas	30g	1.5
Weetbix	30g/2 biscuits	3.5	Dried apricot	6 small	2.5
All Bran	40g	11.5	Canned fruit	1 cup	3.5
Fruity Bix	10 pieces	3.6	Strawberries	½ punnet	4.5
Muesli	60g/ ½ cup	6.0	Vegetables		
Sultana Bran	1 cup	2.9	Potato (no skin)	100g	1.0
Porridge	½ cup (raw)	4.0	Potato (with skin)	100g	1.7
Just Right	¼ cup	2.0	Broccoli	100g	4.0
Rice Bubbles	30g/1 cup	0.5	Corn on cob	150g	5.0
White rice (cooked)	1 cup	1.5	Carrot (cooked)	½ cup	3.0
Brown rice (cooked)	1 cup	3.0	Green beans	100g	2.5
White pasta (cooked)	1 cup	3.0	Peas (frozen)	½ cup	4.5
Wholemeal pasta (cooked)	1 cup	8.5	Pumpkin	85g	1.5
Milk Arrowroots	2 biscuits	0.5	Tomato	1 medium	2.0
SAO crackers	3 biscuits	0.5	Zucchini	1 medium	1.5
Wholemeal crackers	6 biscuits	2.0	Salad	1 cup	1-2
Rice cakes	2 cakes	0.5	Baked beans	220g	10.5
Miscellaneous			Nuts (children over 3 years)		
Popcorn	1 cup	1.0	Peanut butter	1 tbs	2.0
Corn chips	50g	5.0	Peanuts	30g	2.5
			Cashews	50g	3.0
			Almonds	30g	4.3

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

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 poo.

Fluid

Fluid helps make bowel motions softer. If you give your child more fibre make sure he or she is drinking plenty of fluid. Younger children need 4-6 cups of fluid each day. Older children need 6-8 cups each day.

- 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 tend to reduce appetite.
- Milk is a very nutritious drink for children but limit intake to three small glasses (500-600mls) per day.

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

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, paediatrician or gastroenterologist.

Disimpaction

The first step is 'disimpaction' or clearing out the poo. It may take 3-5 days for the first poo 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 a number of days until all the poo is passed and the child's bowel can start to recover and return to normal.

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®.

Stop once disimpaction occurs, then move to a maintenance dose. Enemas or suppositories (e.g. glycerin) are **rarely required**.

Maintenance

After disimpaction, maintenance treatment with laxatives 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).

First line treatment	
Children < 2 years; stool softener and/or osmotic laxative	
Children > 2 years; osmotic laxative and/or stimulant laxative	
Stool softeners	
Poloxamer (Coloxyl® drops)	< 6 months, oral, 0.3mL three times a day 6-18 months, oral, 0.5mL three times a day 18-36 months, oral, 0.8mL three times a day
Paraffin 50% emulsion (Parachoc®)	1-6 years, oral, 10-15mL daily 7-12 years, oral, 20mL daily >12 years, oral, 40mL daily
Osmotic laxatives	
Polyethylene glycol with electrolytes (preferred therapy) (Movicol®)	Movicol- half®, Movicol Junior® 1-12 months, initially ½ to 1 sachet daily 1-6 years, oral initially, 1 sachet daily (usual maximum 4 sachets daily) 6–12 years, oral, initially, 2 sachets daily (usual maximum 4 sachets daily).

	<p>Movicol[®]</p> <p>12–18 years, oral, initially 1 sachet daily (usual maximum is 3 sachets daily).</p>
<p>Polyethylene glycol (no electrolytes)</p> <p>(Osmolax[®], Clearax[®])</p>	<p>Using measure provided: one level scoop is 17g. To be given in 250mL water (one cup).</p> <p>2- 6 years, oral 8.5g (half scoop) once daily in 120mL water.</p> <p>6-12 years, oral 17g once daily; over 12 years (this can be increased to up to 3 doses if required)</p>
<p>Lactulose[®]</p> <p>Lactulose[®]</p>	<p>Initial dose: adjust according to response.</p> <p>1-12 months, oral 2.5ml twice daily</p> <p>1-5 years, oral 2.5-10ml twice daily</p> <p>5-18 years, oral 5-20ml twice daily.</p> <p>Up to 1.5ml/kg daily. Daily maximum is 60ml</p>

Studies do not support the use of pre or probiotics in the treatment of childhood constipation.

References

Royal Children's Hospital Melbourne, **Constipation**, November 2010.

Gastroenterological Society of Australia, **Information about Constipation**, August 2010.

National Health and Medical Research Council & New Zealand Ministry of Health, **Nutrient Reference Values for Australia and New Zealand**, 2006.

National Health and Medical Research Council, **Eat for Health: Australian Dietary Guidelines Summary**, 2013. Nutrition Education Materials Online, **Fibre for Children**, September 2013



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