Constipation in Children

Constipation is a very common problem for children. For most children, constipation means passing hard stools, with difficulty, less frequently than normal. Regular soiling (often mistaken for runny diarrhoea) may indicate that a child has bad constipation with impaction (a blockage of stools/faeces). Where no particular disease or illness is the cause of the constipation, it is called *idiopathic* constipation. It is important that constipation be recognised and treated early, with laxatives, to prevent it from becoming a long-term (chronic) problem.

Your child's bowels - what is normal?

Parents often get very worried about their child's bowel habit. This anxiety can start when the child is a baby, with concern over the number of dirty nappies. The main thing to realise is that every child is different. **Normal can vary quite a bit. It is a *change* in what is normal for your child, that suggests a problem**.

Babies will open their bowels anything from several times per day, to once every few days. The frequency of bowel movements is not particularly important. What is important is that the stools (motions, poo, faeces) are soft and easily passed.

Breast-fed babies tend to pass runnier, mustard yellow-coloured stools. This is because breast milk is better digested than infant formula (bottle feeds). Newborn breast-fed babies may open their bowels with every feed. However, it is also normal for a breast-fed baby to go up to a week without a bowel movement.

Bottle-fed babies often need to open their bowels daily, as the stools are bulkier. Bottle-fed baby stools smell worse (more like an adult's).

It is not uncommon for your baby's stools to vary in colour and consistency from day to day. Any prolonged change to harder, less frequent stools might mean constipation.

As babies are weaned to solid foods, their stools will change in colour and smell. The frequency may again change. Generally the stools become thicker, darker and a lot more smelly. You will notice that your baby's stools will alter depending upon what you have fed him or her. Some high-fibre foods, such as raisins, may even pass through your baby's bowels virtually unchanged, appearing in the nappy at the next change.

As your baby grows up, into a toddler and then a young child, you may see further changes in their stool frequency and consistency, often dependent on what they are eating.

Your child's bowels - what is abnormal?

As you can see, there is great variation in a child's bowel habit, dependent on their age and what they are fed. As already mentioned, it is a *change* in what is normal for your child, that suggests a problem. **Anything from three times a day to once every other day is common and normal. Less often than every other day means that constipation is likely**. However, it can still be normal if the stools are soft and well formed, and passed easily.

It may be normal for your baby to go a bit red in the face when straining to pass a stool. Constipation is more of a problem than this. Breast-fed babies seldom get constipated as breast milk contains exactly the right balance of nutrients to keep the stools soft and easily passed.

Diarrhoea usually means very runny stools, often passed more frequently than normal. Breast-fed babies get diarrhoea less frequently than other babies, as breast milk has a protective effect against the germs that can cause diarrhoea.

What is constipation?

Constipation in children or babies can mean any, or all, of the following:

- Difficulty or straining when passing stools.
- Pain when passing stools, sometimes with a tiny amount of blood in the nappy or on the toilet paper, due to a small tear in the skin of the anus.
- Passing stools less often than normal. Generally, this is less than three complete (proper) stools per week.
- Stools that are hard, and perhaps very large, or pellet-like and small, like rabbit droppings.

Other symptoms of constipation

As well as less frequent, hard (and perhaps painful) stools, constipation can cause:

- Tummy ache (abdominal pain).
- Poor appetite.
- General malaise (feeling 'off colour').
- Behavioural changes, such as being more irritable or unhappy.
- Fidgeting, restlessness and other signs that the child needs to go to the toilet.
- Feeling sick (nausea).

Severe constipation can cause impaction (where a very large stool is stuck in the rectum). This can cause further symptoms. In particular, this can cause a child to soil their pants regularly with very soft faeces, or with faecal-stained mucus. This is often mistaken by parents as diarrhoea. Impaction is discussed in detail later.

Types of constipation in children and babies

- **Idiopathic constipation**. This is common. The word *idiopathic* means *of unknown cause*. Various factors may be involved (discussed later), but many children become constipated for no known reason.
    - Short bouts of constipation. It is common for children and babies to have a bout of mild constipation for a day or so. This may settle quickly, often without the need for medical treatment.
    - Long-term constipation. In about 1 in 3 children who become constipated, the problem becomes more long-term (persistent). This is also called *chronic idiopathic constipation*.

- **Constipation due to an underlying disease or condition**. This is uncommon. The constipation is said to be *secondary* to this other problem. Some examples of conditions and problems that can cause constipation are:
    - Some neurological conditions.
    - Hypothyroidism (an underactive thyroid gland).
    - Cystic fibrosis.
    - Rare diseases with abnormal development of the bowel, such as Hirschsprung's disease.
    - As a side-effect of certain medications that a child has to take for another condition.

  Treatment may involve treating the underlying condition (if that is possible) in addition to tackling the constipation.

  Worrying symptoms or signs that may indicate a secondary cause include the following. These should be mentioned to your GP. It is also *possible* that some of these symptoms could mean your child is more seriously unwell:
    - Vomiting.
    - Weight loss or failure to gain weight (thrive).
    - A swollen, stretched tummy.
    - Severe pain.
    - A baby that does not pass its first stool (called meconium) within the first 48 hours of life.
    - Abnormalities of the anus - for example if it is closed over.
    - Neurological (nervous system) problems such as weak or paralysed legs.
    - Sores or ulcers near the anus.
    - Excessive thirst.
    - Urinary symptoms - such as passing huge volumes of urine, urine that is very dark or painful urination with smelly urine.
    - Very pale-coloured stools (especially if the urine is very dark too).

The rest of this leaflet is about idiopathic constipation.

Does my child need any tests?

Tests are not normally needed to diagnose idiopathic constipation. Your GP is likely to ask various questions and do a general examination to rule out secondary causes of constipation. By examining your child's abdomen (tummy), a GP can tell if there are lots of stools in the bowel. This can give an indication if impaction (discussed later) has developed. (If an underlying cause of constipation is suspected, your GP will refer your child to a paediatrician (children's doctor) and further tests may be done.)

What causes idiopathic constipation?

As mentioned, idiopathic means that there is no disease or known cause for the constipation. However, it is thought that various factors may contribute to constipation developing, or make it worse. These include diet, stool holding and emotional factors.

Diet

Dietary factors that may play a part in constipation are:

- Not eating enough foods with fibre (the roughage part of the food that is not digested and stays in the gut).
- Not having enough to drink.

Stools tend to become harder, drier, and more difficult to pass if there is little fibre and fluid in the gut.

Stool holding

This means the child has the feeling of needing the toilet, but resists it. The child holds on to the stool, trying to ignore the desire to empty the bowels. This is quite common. You may see your child crossing their legs, sitting on the back of the heels, or doing similar things to help resist the feeling of needing the toilet. Your child may clench his or her buttocks to try to stop the stool from coming out, and may seem quite fidgety. You may notice smudges of stool on your child's pants, often when they are unable to hold on any longer. The longer the child holds on, the bigger the stool gets. Eventually the child has to go, but the large stool is more difficult to pass, and often more painful. This may lead to a bit of a vicious cycle where the child is even more reluctant to open his or her bowels the next time. There are a number of reasons why children may hold on to stools:

- A previous stool that they passed may have been a struggle or painful. So, they try and put off doing it again.
- Their anus may be sore or have a crack (anal fissure) from passing a previous large stool. It is then painful to pass further stools. So, the child may resist the urge to pass a stool.
- They may have a dislike of unfamiliar or smelly toilets, such as at school or on holiday. The child may want to put things off until they get home.

Emotional problems

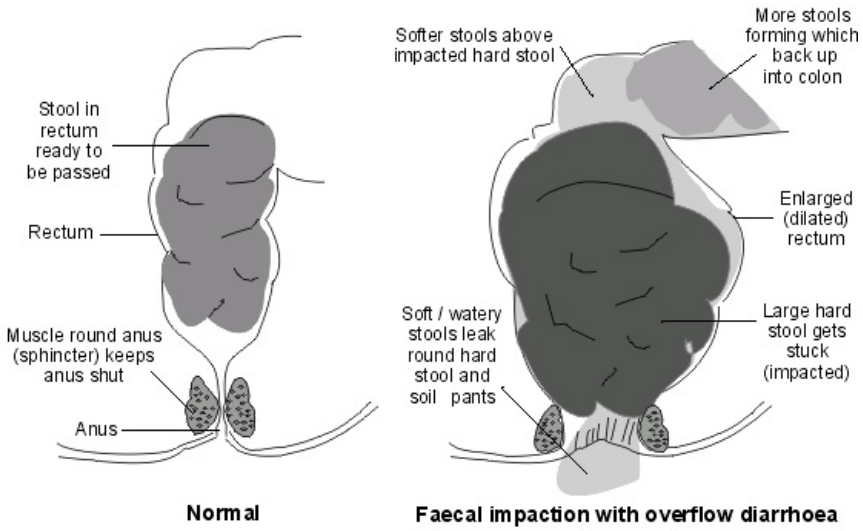
Constipation problems may be made worse with upset due to change in surroundings or routine. Common examples are moving house and starting nursery. Potty training may be a factor if a child becomes scared of using the potty. Fears and phobias are usually the underlying reasons for these problems.

What is idiopathic constipation with impaction?

Impaction means that the bowel is, in effect, blocked by a large amount of hard stool. Idiopathic constipation with impaction most commonly develops in children between the ages of 2 and 4 years, but older or younger children can be affected. Symptoms and features include:

- Recurrent episodes when the child is uncomfortable or distressed trying to pass a stool.
- The child soils their pants regularly with very soft faeces, or with faecal-stained mucus. This is often mistaken by parents as diarrhoea.
- The child may also become irritable, not eat much, feel sick, have tummy pains from time to time, and may be generally out of sorts.
- A doctor can often feel a backlog of hard, lumpy stools when he or she examines the child's abdomen (tummy).

The diagram below shows how a child may develop impaction, and the symptoms this may cause.



- Normally, stools build up in the lowest part of the bowel.
- When stools accumulate, they start to pass into the rectum (the last part of the bowel) which stretches. This sends nerve messages to the brain, telling you that you need to empty your bowels.

- If the stool is not passed out then more stools from higher up also reach the rectum.
- Eventually, large hard stools may build up in the rectum.
- The rectum may then stretch and enlarge (dilate) much more than normal, to cope with the excessive amount of stools.
- A very large stool may develop and get stuck (impacted) in an enlarged rectum.
- If the rectum remains enlarged then the normal sensation of needing the toilet is reduced. The power to pass out a large stool is also reduced (the rectum becomes 'floppy').
- More stools build up in the colon behind the impacted stool in the rectum.
- The lowest part of an impacted stool lies just above the anus. Some of this stool liquefies (becomes runny) and leaks out of the anus. This soils the child's pants or bedclothes. Also, some softer, more liquid stools from higher up the colon may bypass around the impacted hard stool. This also leaks out and soils the pants or bedclothes and can be mistaken for diarrhoea. The child has no control of this leaking and soiling.
- When a stool is eventually passed, because the rectum is distended and weakened, it simply fills up fairly quickly again with more hard stool from the backlog behind.

What is the treatment of idiopathic constipation?

Laxatives

Idiopathic constipation that has lasted for more than a few days is usually treated with laxatives. Your doctor will advise on the type and strength needed. This may depend on factors such as the age of the child, severity of the constipation and the response to the treatment. Laxatives for children commonly come either as sachets or a powder that is made up into a drink, or as liquid/syrup. The laxatives used for children are broadly divided into two types.

- Macrogols (also called polyethylene glycols) are a type of laxative that pulls fluid into the bowel, keeping the stools soft. They are also known as *osmotic* laxatives. For example, Movicol® Paediatric Plain is one brand that is commonly used first. This is mixed into water to make a drink to which cordial, such as blackcurrant squash, can be added to make it taste nicer. Lactulose is another type of osmotic laxative.
- Stimulant laxatives. These stimulate (encourage) the bowel to pass the stools out. There are several different types of stimulant laxative. Sodium picosulfate, bisacodyl, senna and docusate sodium are all examples. A stimulant laxative tends to be added in addition to a macrogol if the macrogol is not sufficient on its own.

Laxatives are normally continued for several weeks after the constipation has eased and a regular bowel habit has been established. This is called maintenance treatment. So, in total, the duration of treatment may be for several months. Do not stop the laxatives prescribed abruptly. Stopping laxatives abruptly might cause the constipation to quickly recur. Your doctor will normally advise a gradual reduction in the dose over a period of time depending on how the stools have become in their consistency and frequency. Some children may even require treatment with laxatives for several years.

Treatment of impaction - if needed

Similar treatments are used for the the treatments listed above. The main difference is that higher doses of laxatives are needed initially to clear the large amount of faeces blocking the rectum. Secondly, laxatives are also usually needed for much longer, as maintenance treatment. The aim is to prevent a build-up of hard stools recurring again, which will prevent impaction returning.

As a result of maintenance treatment:

- The enlarged rectum can gradually get back to a normal size and function properly again.
- Constipation is then unlikely to recur.

If laxatives are stopped too soon, a large stool is likely to recur again in the weakened 'floppy' rectum which has not had time to get back to a normal size and strength.

Treatment to clear impacted stools from the rectum can be a difficult time for you and your child. It is likely that your child will actually have a few more tummy pains than before, and that there will be more soiled pants. It is important to persevere, as these problems are only temporary. Clearing the impacted stools is an essential part of treatment.

In rare instances, where treatment of impacted stools has failed, a child may be treated in hospital. In hospital, stronger medicines to empty the bowel, called enemas, can be given via the rectum. For very hard to treat cases, a child can have a general anaesthetic and the bowel can be cleared out manually by a surgeon.

Diet

Dietary measures should not be used on their own to treat idiopathic constipation as it will be unlikely to solve the problem. However, it is still important to get a child into a habit of eating a good balanced diet. This is to include plenty of drinks (mainly water) and foods with fibre. This will help to prevent a recurrence of constipation once it has cleared.

How can constipation in children be prevented?

Eating foods with plenty of fibre and drinking plenty makes stools that are bulky, but soft and easy to pass out. Getting plenty of exercise is also thought to help.

Food and fibre

This advice applies to babies who are weaned, and children. Foods which are high in fibre are: fruit, vegetables, cereals, wholemeal bread. A change to a high-fibre diet is often 'easier said then done', as many children are fussy eaters. However, any change is better than none. Listed below are some ideas to try and increase your child's fibre intake:

- A meal of jacket potatoes with baked beans, or vegetable soup with bread.
- Dried (or semi-dried) apricots or raisins for snacks.
- Porridge or other high-fibre cereals (such as Weetabix®, Shredded Wheat® or All Bran®) for breakfast.
- Offering fruit with every meal - perhaps cut up into little chunks to make it look more appealing.
- Perhaps do not allow sweets or desserts until your child has eaten a piece of fruit.
- Another tip for when children are reluctant to eat high-fibre foods is to add powdered bran to yoghurt. The yoghurt will feel grainy, but powdered bran is tasteless.

Drink

If a bottle-fed baby has a tendency to become constipated you can try offering water between feeds. (Never dilute infant formula (milk) that is given to bottle-fed babies.) Although it is unusual for a breast-fed baby to become constipated, you can also offer water between feeds. Older, weaned babies can be given diluted fruit juice (preferably without added sugar). Pureed fruit and vegetables are the usual starting points for weaning, after baby rice, and these are good for preventing constipation.

Encourage children to drink plenty. However, some children get into the habit of only drinking squash, fizzy drinks or milk to quench their thirst. These may fill them up, and make them less likely to eat proper meals with food that contains plenty of fibre. Try to limit these kinds of drinks. Give water as the main drink. However, fruit juices that contain fructose or sorbitol have a laxative action (such as prune, pear, or apple juice). These may be useful from time to time if the stools become harder than usual and you suspect constipation may be developing.

Some other tips which may help

- Try to get children into a regular toilet habit. After breakfast, before school or nursery, is often best. Try to allow plenty of time so they don't feel rushed.

- Some kind of reward system is sometimes useful in younger children prone to holding on to stools. You could give a small treat, or use stickers or star charts to reinforce the message. Praise your child for passing a stool in the potty or toilet, but do not punish accidents. It is easy to become frustrated with soiled pants or a child who refuses to pass a stool. Try to keep calm and not make a fuss over the toilet issue. If your child can see that you are stressed or upset, they will pick up on this feeling, and the toileting issue can become even more of a fraught battle. The aim is to be 'matter of fact' and relaxed about it.

Further information

Your GP, practice nurse and health visitor are good sources of advice and information about childhood constipation. The school nurse may also be able to give some practical support and help.

Further reading & references

- Constipation in children and young people, NICE Clinical Guideline (May 2010); Diagnosis and management of idiopathic childhood constipation in primary and secondary care
- Constipation, Clinical Knowledge Summaries (January 2008)
- Bardisa-Ezcurra L, Ullman R, Gordon J; Diagnosis and management of idiopathic childhood constipation: summary of NICE BMJ. 2010 Jun 1;340:c2585. doi: 10.1136/bmj.c2585.
- No authors listed; Managing constipation in children. Drug Ther Bull. 2000 Aug;38(8):57-60.

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