

Constipation:

CONSTIPATION OVERVIEW — Constipation is a common problem in children of all ages. A child with constipation may have bowel movements less frequently than normal, hard bowel movements, or large, difficult, and painful bowel movements.

Most children with constipation do not have an identifiable underlying medical problem causing their symptoms. Constipation generally resolves with changes in diet, behavior, or sometimes with medicine. You can try some of these treatments at home. If home treatment is not helpful, talk to your child's healthcare provider.

This article will focus on the diagnosis, treatment, and prevention of constipation. More detailed information about constipation in infants and children is available by subscription.

NORMAL VERSUS ABNORMAL BOWEL HABITS — The "normal" amount of time between bowel movements in an infant or child depends upon their age and what they eat. The look of the bowel movement can also vary.

Normal bowel habits

- •During the first week of life, infants pass approximately four soft or liquid bowel movements per day (generally more in breast- compared with bottle-fed infants).
- •During the first three months of life, breastfed infants have about three soft bowel movements per day. Some breastfed infants have a bowel movement after each feeding, whereas others have only one bowel movement per week. Infants who breastfeed are rarely constipated.
- •Most formula-fed infants have two to three bowel movements per day, although this depends on which formula is given; some soy and cow's milk-based formulas cause harder bowel movements, while other formulas that contain partially or completely hydrolyzed milk proteins (sometimes known as "hypoallergenic" formulas) can cause loose bowel movements.
- •By two years of age, a child typically has one to two formed bowel movements per day.
- •By four years of age, a child usually has one or two formed bowel movements per day.

Abnormal bowel habits

•An infant who is constipated typically has bowel movements that look hard or pellet-like. The infant may cry while trying to move his or her bowels. The infant may have bowel movements less frequently than before. Fewer could mean that the infant has a bowel movement every one to two days rather than their previous normal of three to four per day.

You may be worried that your infant is constipated if your child looks like he or she is straining. Because infants have weak abdominal muscles, they often strain during a bowel movement, causing their face to appear red. The infant is unlikely to be constipated if he or she passes a soft bowel movement within a few minutes of straining.

•If your child has fewer bowel movements than usual or complains of pain during a bowel movement, he or she may be constipated. For example, a child who normally has one to two bowel movements every day may be constipated if he or she has not had a bowel movement in two days.

A child who normally has a bowel movement every two days is not constipated, as long as the bowel movement is reasonably soft and is not difficult or painful to pass.

•Many children with constipation develop unusual habits when they feel the urge to have a bowel movement.



- •Infants may arch their back, tighten their buttocks, and cry.
- •Toddlers may rock back and forth while stiffening their buttocks and legs, arch their back, cross their legs, stand on their tiptoes, and wriggle or fidget, or they may squat or get into other unusual positions.
- •Children may hide in a corner or some other special place while doing this "dance."

 Although these movements may look like the child is trying to have a bowel movement, the child is actually trying NOT to have a bowel movement because they are frightened of the toilet or worried that having the bowel movement will be painful.

WHY CONSTIPATION DEVELOPS

Pain — When the child does have a bowel movement, it can be painful and lead them to withhold (avoid going) in an effort to avoid more pain.

On occasion, a child may develop a tear in the anus (called an anal fissure) after passing a large or hard bowel movement. The pain from the tear can lead to withholding. Even infants can learn to withhold because of pain.

Treatment is recommended if your child has hard or painful stools. Treating pain early can help prevent your child from withholding, which can lead to chronic constipation and leakage of bowel movements.

Unfamiliar surroundings — A child may delay moving his or her bowels if they do not have a place where they feel comfortable having a bowel movement, or if they are busy and ignore the need to use the toilet. This can happen when the child starts going to school and avoids having a bowel movement because of hygiene concerns or being embarrassed about using the toilet at school to pass a bowel movement.

Teach your child that it is a good idea to have a bowel movement when his or her body tells them it is time to do so, and reassure him or her that it is OK to use the bathroom at school. This type of training from early childhood may prevent development of constipation when your child starts school.

Medical problems — Medical problems cause constipation in less than 5 percent of all children. Underlying medical problems are even less likely in children who start to have constipation during one of the critical periods discussed below.

The most common medical problems that cause constipation include Hirschsprung disease (an abnormality of nerves in the colon), abnormal development of the anus, problems absorbing nutrients, spinal cord abnormalities, and certain medicines. In most cases, a doctor can rule out these problems by asking questions and performing a physical examination.

CONSTIPATION AND DEVELOPMENT — Constipation is particularly common at three times in an infant and child's life: after starting cereal and puréed foods, during toilet training, and after starting school. Parents can help by being aware of these high-risk times, working to prevent constipation, recognizing the problem if it develops, and acting quickly so that constipation does not become a bigger problem.

Transition to solid diet — Infants who are transitioning from breast milk or formula to solid foods may experience constipation. An infant who develops constipation during this time can be treated with one of the measures described below.

Toilet training — Children are at risk for constipation during toilet training for several reasons.



- •If a child is not ready or interested in using the toilet, he or she may try to avoid going to the bathroom (called withholding), which can lead to constipation.
- •Children who have experienced a hard or painful bowel movement are even more likely to withhold, and this only worsens the problem.

If your child is withholding during the toilet training process, stop toilet training temporarily. Encourage your child to sit on the toilet as soon as they feel the urge to have a bowel movement and give positive reinforcement (a hug, kiss, or words of encouragement) for recognizing the urge and sitting, whether or not the child is successful.

In addition, be sure the child has foot support (eg, a stool), especially while using an adult-sized toilet. Foot support is important because it provides a place for the child to push against as he or she bears down to move their bowels. The stool also helps a child to feel more stable.

For all children, encourage a routine, unhurried time on the toilet. The best time is often after a meal because eating stimulates the bowels. Reading to the child or keeping them company while in the bathroom can help to keep the child's interest and encourage cooperation.

School entry — Once your child starts school, you may not be aware if he or she has problems going to the bathroom. Some children are reluctant to use the bathroom at school because it is unfamiliar or too "public," and this can lead to withholding.

Continue to monitor your child's bowel movements when the child starts school for the first time (eg, kindergarten) and after long absences (eg, summer or winter breaks). You can do this by monitoring how often your child has a bowel movement while at home, particularly on weekends. Ask your child if he or she has any problems trying to have a bowel movement away from home; if limited time or embarrassment is an issue, you can work with your child and/or school to find a solution.

HOME TREATMENTS FOR CONSTIPATION — You can try using home remedies first to relieve your child's constipation. These remedies should begin to work within 24 hours; if your child does not have a bowel movement with 24 hours or if you are worried, call your child's doctor or nurse for advice.

Infants — If your child is younger than four months old, talk to a doctor or nurse about treatment of constipation. For infants of any age, contact the child's doctor if there are concerning signs or symptoms (severe pain, rectal bleeding) along with constipation. The following treatments are for infants with constipation who are older than four months.

- •Fruit juice If your infant is at least four months old, you can give certain fruit juices to treat constipation. This includes prune, apple, or pear juice (other juices are not as helpful). You can give a total of two to four ounces (60 to 120 mL) of 100 percent fruit juice per day for children four to eight months old. You can give up to six ounces (180 mL) of fruit juice per day to infants 8 and 12 months old.
- ●Dark corn syrup Dark corn syrup has been a folk remedy for constipation for hundreds of years. Dark corn syrup contains complex sugar proteins that keep water in the bowel movement. However, current types of dark corn syrup may not contain these sugar proteins, so the syrup may not be helpful. It is not clear whether light corn syrup is helpful.

For an infant who is healthy, a doctor or nurse may recommend adding one-quarter teaspoon to one teaspoon (1.25 to 5 mL) of dark corn syrup to four ounces (120 mL) of formula or expressed breast milk.



Use the lowest dose initially; you can increase the amount up to a total of one teaspoon (5 mL) per four ounces (120 mL) of formula or expressed breast milk until the infant has a daily bowel movement. After your child's bowel movements become soft and more frequent, you can slowly stop the corn syrup. You can give corn syrup whenever the bowel movements start to get too hard, until your child begins eating cereal or solid foods.

- •High-fiber foods If your infant has started eating solid foods, you can substitute barley cereal for rice cereal. You can also offer other high-fiber fruits and vegetables (or purées), including apricots, sweet potatoes, pears, prunes, peaches, plums, beans, peas, broccoli, or spinach. You can mix fruit juice (apple, prune, pear) with cereal or the fruit/vegetable purée.
- •Formulas with iron The iron in infant formula does not cause or worsen constipation because the dose of iron is very small. Therefore, changing to a low-iron formula is not recommended because this will not help with the constipation. Your doctor or nurse may recommend a different type of formula; consult them before making any formula changes.

Iron drops contain higher amounts of iron, and may sometimes cause constipation. Therefore, infants who need iron drops sometimes also need extra diet changes or treatments to make sure that they do not get constipated.

Children — If your child has been constipated for a short time, changing what he or she eats may be the only treatment needed. You can make these changes as often as needed so that the child has soft and painless bowel movements.

If your child does not have a bowel movement within 24 hours of trying the following suggestions, call your child's doctor or nurse. If your child has worrisome symptoms (severe pain, rectal bleeding) with constipation or you have questions, call your child's doctor or nurse before using any of the following treatments.

Dietary recommendations

- •Fruit juice Certain fruit juices can help to soften bowel movements. These include prune, apple, or pear (other juices are not as helpful). Do not give more than four to six ounces (120 to 180 mL) of 100 percent fruit juice per day to children between one and six years of age; children older than seven years may drink up to two four-ounce (120 mL) servings per day.
- •Fluids It is not necessary to drink large amounts of fluid to treat constipation, although it is reasonable to be sure that the child drinks enough fluid. For children older than one year, enough fluid is defined as 32 ounces (960 mL) or more water or other non-milk liquids per day. It is not necessary or helpful for the child to drink more fluid than this if he or she is not thirsty.
- •Food recommendations Offer your child a well-balanced diet, including whole grain foods, fruits, and vegetables. However, do not force these foods and do not use a high-fiber diet instead of other treatments.

Praise your child for trying these foods and encourage him or her to eat them frequently, but do not force these foods if your child is unwilling to eat them. You should offer a new food 8 to 10 times before giving up. You may want to avoid giving (or give smaller amounts of) certain foods while your child is constipated, including cow's milk, yogurt, cheese, and ice cream.

A fiber supplement may be recommended for some children. Fiber supplements are available in several forms, including wafers, chewable tablets, or powdered fiber that can be mixed in juice (or frozen into popsicles).



•Milk – Some children develop constipation because they are unable to tolerate the protein in cow's milk. If other treatments for constipation are not helpful, try having the child avoid all cow's milk (and milk products) for at least two weeks. If your child's constipation does not improve during this time, you can begin giving cow's milk again.

If the child does not drink milk for a long time, ask your child's doctor or nurse for suggestions about ways to be sure that he or she gets enough calcium and vitamin D.

Stop toilet training — If your child develops constipation while learning to use the toilet, stop toilet training temporarily. It is reasonable to wait two to three months before restarting toilet training. Reassure your child that it will not hurt to poop, and praise the child for sitting on the toilet, even if he or she does not have a bowel movement. Avoid punishing or pressuring the child.

Establish regular toilet time — If your child is toilet trained, encourage him or her to sit on the toilet for 5 to 10 minutes once or twice a day after eating. The child is more likely to have a bowel movement after a meal, especially breakfast. Reward the child with praise or attention for sitting, even if he or she does not have a bowel movement. Reading to the child or keeping him/her company while in the bathroom can help to keep the child's interest and encourage cooperation. More information on rewards is discussed below in this topic review.

MEDICAL EVALUATION OF CONSTIPATION — Some infants and children have concerning symptoms with constipation or have constipation that does not improve with home treatments. In these situations, your child should see a doctor or nurse.

During the medical history, the doctor or nurse will ask you (and your child, if appropriate) when constipation began, if there was a painful bowel movement, and how often the child normally has a bowel movement. Mention any other symptoms (such as pain, vomiting, decreased appetite), how much the child drinks, and if you have seen blood in the child's bowel movements.

The doctor or nurse will do a physical examination, and may do a rectal examination. Most children with constipation will not require any laboratory testing or x-rays.

RECURRENT CONSTIPATION — If your infant or child has repeated episodes of constipation (called recurrent constipation), work with your child's doctor or nurse to figure out why this is happening. Some children with chronic and recurrent constipation can develop a problem with bowel leakage (called fecal incontinence), in which liquid stool leaks around the large hard stool in the rectum. Because the leaking stool is soft, some parents can confuse this with diarrhea. Possible reasons for recurrent constipation include:

- Fear of pain due to hard stools or an anal fissure (a small tear in the anal opening)
- •Fear of using the bathroom away from home
- Not having enough time to use the bathroom
- •Reducing the laxative dose or discontinuing laxative too soon

"Clean out" treatment — If your child has recurrent constipation, continue to follow the suggestions for home treatment above. Your child may also need a "clean out" treatment to help empty the bowels. This treatment may include a medicine (eg, polyethylene glycol [PEG, such as Miralax] or magnesium hydroxide [Milk of Magnesia]), an enema or rectal suppository (a pill that you insert in the child's bottom), or a combination of treatments. Consult your child's doctor or nurse before giving any of these treatments.



Maintenance treatment — After the "clean out" treatment, most infants and children are treated with a laxative for several months or longer. PEG is often used for this purpose. You can adjust the amount of laxative so that the child has one soft bowel movement per day. Although several laxatives are available without a prescription, it is important to consult with your child's doctor or nurse before giving laxatives on a regular basis.

Parents are often concerned about giving laxatives, fearing the child will not be able to have a bowel movement when the laxative is stopped. Using appropriate laxatives, as recommended by your child's doctor or nurse, does not increase the risk of constipation in the future. Instead, careful use of laxatives can actually prevent long-term problems with constipation by breaking the cycle of pain and withholding, and helping the child to develop healthy toileting habits. Some children need to continue using a laxative treatment for months or even years. After the child has regular bowel movements and uses the toilet alone for at least six months, it is reasonable to talk about decreasing and eventually stopping the laxative with the child's doctor or nurse. Do not stop the laxative too soon because constipation could return and the child would need to start over with treatment.

Rescue treatment — It is possible for a child to retain a large bowel movement in the colon, despite using laxatives. Develop a "rescue" plan with your child's doctor or nurse in case this happens. If the child has not had a bowel movement for two to three days, a "clean out" treatment and an increased dose of the maintenance laxative are usually recommended. **Behavior changes** — In children who have constipation frequently, behavior changes are recommended to help the child develop normal bowel habits.

- •Encourage your child to sit on the toilet within 30 minutes of each meal (ie, for 5 to 10 minutes, two to three times per day). Do this every day.
- •Design a reward system with your child to recognize the child's efforts. Give the reward after the child sits (the child does not have to have a bowel movement).

Rewards for preschoolers may include stickers or small sweets, reading books, singing songs while sitting, or special toys that are only used during toilet sitting. Rewards for school-aged children may include reading books together, activity books or hand-held computer games that are only used during toilet-sitting time, or coins or stickers that can be redeemed for small items or toys.

•Keep a diary of your child's bowel movements, medicines, pain, and accidents. This will help you and your child's doctor or nurse figure out if there are triggers for constipation.

Dietary suggestions — There are a number of myths about dietary treatments for constipation in children and infants. Drinking extra fluids and eating a high-fiber diet are not enough to treat repeated episodes of constipation in children; most children also need a laxative and behavior changes. Dietary recommendations are described above.

Treatment follow-up — After beginning treatment for constipation, most doctors and nurses recommend periodic follow-up phone calls or visits to check on the child. Infants and children with constipation often need adjustments in treatment as they grow and there are changes in their diet and daily routine.

WHEN TO SEEK HELP — Call your child's doctor or nurse immediately (during the day or night) if your child has severe abdominal or rectal pain.

In addition, call your child's doctor or nurse if any of the following occurs:



- •Your child has not had a bowel movement within 24 hours of starting constipation treatment
- •Your infant (younger than four months) has not had a bowel movement within 48 hours of their normal pattern (eg, if an infant who normally has a bowel movement every two days goes three days without a bowel movement). You should call earlier if your infant has other symptoms such as vomiting or pain.
- •Your infant (younger than four months) has hard (rather than soft or pasty) stools
- •Your infant or child does not want to eat or loses weight
- •You see blood in your child's bowel movement or diaper
- Your child has repeated episodes of constipation
- •Your child complains of pain with bowel movements
- •You have questions or concerns about your child's bowel habits

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