

# Constipation



## **What is constipation?**

If a child repeatedly resists the urge to defecate and withholds stool in the rectum, a large mass of stool may accumulate. Chronic constipation is one of the most common ailments of the intestinal tract in children and can cause significant pain. Constipation is defined as the infrequent and difficult passage of stool. It is important to note that the frequency of bowel movements among normal, healthy children varies greatly. The stool of constipated children may be very hard, but, in some instances, is often quite soft.

## **What is a normal bowel habit?**

Bowel habits vary tremendously in healthy individuals. The passage of three bowel movements a day or one per week may be normal. A child is usually considered to have severe chronic constipation if he or she regularly goes more than one week between bowel movements.

## **What controls defecation?**

Defecation is a complex process that depends on the successful interaction of learned and involuntary behavior. The rectum, the lowest part of the colon or large intestine, collects stool as it is formed and passed on from the upper colon. The stool is prevented from leaking out of the rectum by the action of two muscles, the internal anal sphincter and the external anal sphincter. The external anal sphincter is the muscle you can voluntarily squeeze shut when attempting to not stool. Under normal conditions these sphincters are closed, but when stool enters the rectum and puts a bit of pressure on the nerves in the wall of the colon, the internal sphincter relaxes. There is no control over this relaxation. Stool then presses on the external sphincter, creating the urge to defecate, or to have a bowel movement. During defecation, both sphincters relax and stool is evacuated by both muscle activity in the colon and voluntary forceful "bearing down". If a child does not wish to defecate, he or she can forcefully contract the external sphincter and push stool back up into the colon away from the sphincters, thereby alleviating the urge to defecate.

## **How does chronic constipation develop?**

retained stool in the rectum and colon becomes less easy to pass as it becomes larger and more dried out. As a result, one of two things may occur. The child may eventually be unable to resist the urge to defecate and with tremendous effort may pass a huge stool, thus relieving the rectal pressure until another fecal mass accumulates. The child may, however, be unable or unwilling to pass the stool regardless of its size. The rectal muscles and the external sphincter becomes fatigued with the effort of retaining stool and, in time, partially relaxes. Liquid fecal material from high in the colon will trickle down around the mass of stool in the rectum, and will leak uncontrollably through the anus into the child's underwear. The child has no sensation of the passage of this liquid, sticky stool and no control over this action, which is called fecal leakage soiling or encopresis. Fecal soiling commonly occurs in the late afternoon or evening and less commonly during the morning or night. Fecal soiling may also occur many times during the day.

Many children who experience soiling display a cyclic pattern of symptoms with progressively severe soiling, loss of appetite, and decreased physical activity culminating in the passage of a very large movement. These children then feel better, eat better, and experience no soiling for a period of time until the cycle begins again. This pattern of fecal retention, constipation, and soiling may result from a number of causes. Whatever the primary cause, once the pattern is established, the problem

perpetuates itself with stool withholding leading to dislike or inability to have a bowel movement, which leads to more voluntary withholding of stool. Children often deny they have soiled their underwear, and sometimes even hide or throw away their soiled underwear.



### **What are some causes of constipation in children?**

Constipation is a common symptom in children and may be related to:

- **PAIN:** Constipation may result in pain when stools are large and hard. cracks in the skin, called fissures, may develop in the anus. These fissures can bleed or increase pain, causing the child to withhold stool.
- **ILLNESS:** A child who has a brief illness with poor food intake, fever, and no physical activity may develop constipation, which may persist after the acute illness is over.
- **POOR BOWEL HABITS:** Ignoring the urge to defecate can start a cycle of constipation. Teenage girls and boys may not like using bathrooms other than those at home and may become constipated by refusing to use school or public toilets. Children may ignore the urge because they are “too busy”. after a period of time the child may stop feeling the urge to defecate because of rectal distension.
- **EMOTIONAL:** Sometimes children, because of emotional issues or inappropriate attempts at toilet training, will voluntarily withhold stool until the problem of fecal soiling results. REFusing to defecate may be used as a powerful tool to control authority figures. The effort to retain stool may be associated with agitated behavior, stiffening, hiding, and crying as if in fear or pain. This behavior can be frightening to parents and siblings.
- **TRAVEL:** Often constipation occurs when traveling. The reason for this is not clear, but may be related to changes in lifestyle, schedule, diet, and drinking water.
- **POOR DIET:** Constipation may result from a decreased intake of high-fiber foods (vegetables, fruits, and whole grains). Some studies have shown that high-fiber diets may result in larger stool, more frequent bowel movements, and therefore less constipation. It is rare that diet is the sole cause or cure of childhood constipation.
- **MUSCLE OR NERVE DAMAGE:** Some children with muscle disease or neurologic disorders causing weakness or poor coordination may become constipated. These and other unusual causes of constipation can easily be evaluated by your physician.
- **UNKNOWN:** There is a large group of constipated children in whom no cause can be identified.

### **Is constipation harmful?**

Fecal material is a normal inhabitant of the colon and is not dangerous to the body. Sometimes children who have a huge fecal collection in the colon will be tired and somewhat irritable, with poor appetite or abdominal pain. These symptoms usually pass with relief of constipation. The colon will not rupture even with huge fecal masses. A large fecal mass may press on the urinary bladder and the ureters (the tubes that take urine from the kidneys to the bladder), causing an obstruction or infection in the bladder or kidneys. This is especially likely in girls. Occasionally the hard stool may irritate the lining of the colon until a small ulcer is formed. The ulcer may bleed, and small amounts of bright red blood may be noted in bowel movements or on underwear.

## How is constipation treated?

There are many different ways of treating constipation. In general, for chronic constipation, the program and medications prescribed by the doctor will help you child retrain his bowel, which has become somewhat stretched out and inefficient due to chronic fecal retention.

First, the collection of stool in the colon must be removed. This may require laxatives by mouth, enemas, or rarely manual removal. This emptying of the colon is necessary before any bowel retraining can take place.

When the colon is empty, steps will be taken to ensure easy passage of stool. This may include:

- Giving a stool softener or mild laxative on a regular basis
- Altering the diet to include more fiber
- Encouraging your toilet-trained child to sit on the toilet at regular times each day. some suggested times may be after first awakening in the morning, one half hour after meals, or after arriving home from school. If you child's feet do not touch the floor, supply a footstool or box to help your child maintain his or her balance. Do not encourage the use of reading materials, games, or activities while sitting on the toilet.
- Encouraging regular exercise

During this period of retraining, it is important to keep the colon as empty as possible so that it can regain some muscle tone an accumulation of stool that could lead to soiling again. Your child should have a bowel movement at least every other day. If no, you should call us to discuss the situation. This period of retraining may last from 6 to 12 months. During this time, any underlying problems that may have initially given rise to chronic constipation or which developed as a result of it will be addressed.

After the intensive retraining period, a gradual reduction in medication will be attempted. In many children, retraining will be successful and medication can be stopped altogether. Should your child have a relapse and begin to withhold stool again, the recurrence can be handled by contacting us and intensifying treatment temporarily.

An essential element to successful treatment of chronic constipation is continued, regular follow up with your doctor.

For children with occasional constipation, increased fiber and regular exercise can be of help. As mentioned above, stool habits can vary significantly from one child to another; however, if your child is having hard balls of stools, he or she may be constipation. To treat occasional constipation, four to eight ounces of 100% juice (such as apple or prune juice) diluted with water can be used when he or she is constipated. You can also use  $\frac{1}{4}$  to  $\frac{1}{2}$  a capful of polyethylene glycol (Miralax) dissolved in 8 ounces of water. If these do not help or if you have further questions please call as to discuss your child.

In infants, constipation can be diagnosed when they are having hard balls of stool. It can be normal for an infant to stool with every feed to up to only once a week as long as the stools are soft. Infants will frequently turn red or purple in the face when trying to stool and this is not a sign of constipation. If your infant is having trouble stooling, you can try rubbing his or her stomach in a clockwise direction, bicycling his or her legs, or taking a rectal temperature (the stimulation can often lead them to stool). If these techniques do not work you can given infants over the age of 4 months 1-2 ounces of 100% apple or prune juice diluted with equal amounts water. If your infant continues to be constipated or is under the age of 4 months please call the clinic to schedule an appointment.



As always if you have any questions or concerns or if you notice any blood or mucous in the stool, please call the clinic.

Portions of this article were used with permission of the author Judy Sondheimer, M.D.

