ARNOLD PALMER HOSPITAL
For Children
Supported by Arnold Palmer Medical Center Foundation

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ENCOPRESIS

Information for children and parents

Children with encopresis have bowel movements in the wrong places, such as underwear and nightclothes. This is called "soiling". Sometimes the child will also pass stool in the toilet. Encopresis is very common, occurring in at least 1.5% of all children. It is a frequent reason why children come to the Pediatric GI clinic.

SYMPTOMS

Encopresis usually follows constipation. The child may have stomach ache, cramps, vomiting, or bloating. Some children become pale or flushed, lose their appetites, or even lose weight. Some have small tears in the anal tissue called anal fissures. These are painful and can lead to blood in the stool.

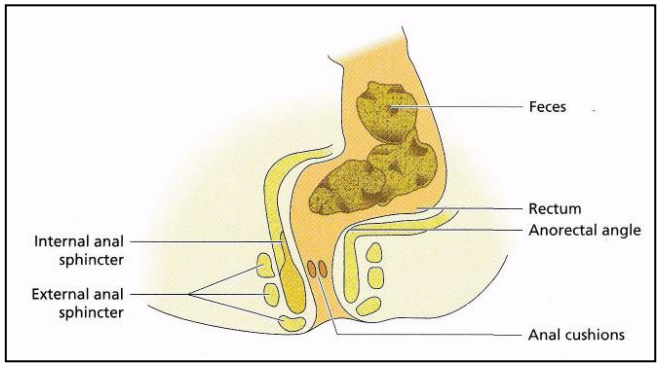
Children with this problem have different bowel habits. Some may not have any bowel movement for many days, and then have a huge, hard stool, large enough to block the toilet! Other children have daily bowel movements on the toilet but also leak liquid, diarrhea-like stool into their clothes. Some children do not stool in the toilet at all.

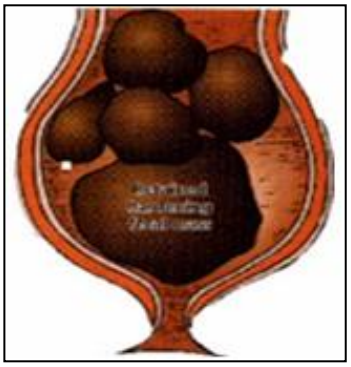
Children may hide their soiled underwear in drawers or under the bed. This can be very unpleasant for other family members. Another common upsetting behavior is refusal to change dirty clothing even though the odor is very annoying to other people. The child with encopresis may not notice the unpleasant smell. Many children with encopresis also wet the bed at night or wet their clothing during the daytime. This wetting is called enuresis. Playmates or brothers and sisters may tease children with encopresis and enuresis. Teasing can lead to embarrassment, school refusal, fighting, and other problems.

CAUSES

Usually encopresis is a result of constipation. Constipation often begins when a child holds back a bowel movement. Perhaps the child has had hard, painful stools. Some children naturally have dry, hard stools. A diet change, viral illness, hot weather, or travel can lead to hard stools. A bad diaper rash can cause painful passage of stool. Older children may start holding bowel movements when they go to school or summer camp and are faced with a toilet that is less private than the one they have at home. The initial cause may have occurred many years before a doctor sees the child for treatment of encopresis.

Stool that is held backs eventually fills up the colon and stretches it out of its normal shape. Stool retained in the colon dries out as the colon absorbs water from it. The longer the stool is held in the colon, the larger and harder it becomes making bowel movements even more painful. This starts a vicious cycle. In the normal colon, muscles try to push stool out. Nerves tell the child that a stool needs to come out. However, the stretched-out, flabby colon muscles cannot push. Hard stool gets stuck and only liquid can pass around the rocklike stool. Stretched nerves become less sensitive. The child does not feel the leaking stool. The leakage looks like diarrhea or wet staining in clothing or underwear. Since the child always has some stool on his clothes, he gets used to the smell and it no longer bothers him.





NORMAL

The stool moves down and stretches the end of the Large intestine and it results in the feeling of urge.

IMPACTION

If the end is constantly stretched out by stool the normal feeling of urge can be lost.

TREATMENT

The treatment plan has three parts. First, the initial clean out clears retained stool out of the colon. Second, maintenance therapy prevents stool build-up, allows the colon to return to its normal shape and muscle tone, and encourages regular bowel movements in the toilet. Third, counseling may be helpful to children who are embarrassed or feel they are "bad" because of the encopresis. A counselor can help structure the treatment plan and help the child cooperate.

The Initial Clean out

The large, rocklike stool in the colon must sometimes be softened and broken down before it can be passed. . Mild laxatives taken by mouth are most frequently used for this purpose. Mineral oil, milk of magnesia or lactulose are often used. Mineral oil is not absorbed into the bloodstream. It stays in the colon and penetrates into the hard stool to soften it. Mineral oil also coats the stool and the walls of the colon to help the stool slide out easily. Lactulose also is not absorbed into the blood; a small amount of magnesia may be absorbed from milk of magnesia. Another medicine that may be used is MiraLax. It is another laxative, which is also not absorbed in the intestine. These medicines work by keeping water in the stool so that it remains soft. It is not really possible to give too large a dose of one of these medicines to a normal child; the only effect would be looser stool.

This GI division uses enemas and suppositories only rarely. These provide only a partial solution to the problem of constipation since they only work on the bottom part of the colon, near the rectum, and cannot get at the stool that is farther up. Enemas and suppositories are sometimes used to help the mineral oil work more quickly. We rarely use strong laxatives such as cod liver oil or Ex Lax because these tend to tire out the colon muscles.

The initial dose of mineral oil or other stool softener is usually one to six Tablespoons (not teaspoons) given by mouth one to three times per day. Occasionally larger doses are required. In order to decide when the clean-out is complete, the parent must watch the stool. First there should be a large amount of stool or stool chunks. This may look like diarrhea because it is mixed with the stool softener. Mineral oil may make an orange oily liquid appear. This watery stool will not cause dehydration. After a while, less hard stool will come out, and there will be mostly orange or clear liquid, signaling the end of a clean out. If there is any doubt about the clean out, continue giving the large doses until you are sure, or call the Pediatric GI service for advice. If you use mineral oil, make sure it contains no laxatives or cathartics. Recent studies show that mineral oil does not seriously deplete vitamins or other nutrients from the body so it can be safely used for a long time. Milk of magnesia usually has no side effects. Lactulose may cause cramps.

Clean outs can be very messy since the child often cannot control the passage of the stool and medicine mixture. Younger children may have to wear diapers again during the clean out. Older children may have to remain home from school so as to be able to reach the bathroom quickly.

There are many ways to accomplish the initial clean out. Your doctor will discuss the best plan with you and your child.
Taking your medicine: Some children do not like the taste of mineral oil or milk of magnesia. Some of these medicines come in flavors that your child may like; these may be expensive. Medicines can be mixed with chocolate or strawberry drink mix, or with jello powder. Mineral oil can be placed in the blender with orange juice concentrate and ice or with

ice cream or with chocolate milk. Mineral oil can be used for salad dressing. Sometimes keeping the medicine very cold in the freezer helps it go down.

Maintenance Therapy
The goals of maintenance therapy are to prevent stool buildup, allow the colon to return to its proper shape and function, and encourage the child to have bowel movements in the toilet. This takes several steps:

1. Decrease the medicine dose as your doctor directs. Slight adjustments of the dose may be needed to prevent stool buildup and to keep stools soft but not too runny. Continue each new dose for three to four days to see if the new dose is working.
2. The child should sit on the toilet, trying to have a bowel movement, for five minutes, fifteen to thirty minutes after a meal or snack. Try to do this at least twice a day. Listening to a radio may make this less boring but the child should concentrate on pushing with the belly muscles and relaxing the muscles of the anus. *After meals, especially after breakfast, is the best time for this "toileting practice" or "sit", because a full stomach makes most people feel the need to have a bowel movement.* A large hot drink may increase this feeling. Place a box or stool under the feet of smaller children to raise their knees higher than their hips. The best position for a bowel movement is with the child's bottom sinking into the toilet-- as long as the child does not feel he is falling! Very small children may feel safer if they face backwards on the toilet, or use a potty chair.
3. Improve your child's diet by the following:
    a. Increase fiber intake by encouraging whole grains, fruits, vegetables, peanut butter, dried fruits, and salads. Increase all fluids in the diet, especially juice. Drink water each day in addition to liquids such as Welch's grape drink, pineapple juice, grapefruit juice, and white grape juice.
    b. Decrease your child's intake of highly refined starch (e.g., pasta, pizza, macaroni, cheese, noodles, bread, potatoes).
    c. Decrease high fat containing foods which tend to be constipating. Limit cheese and dairy. Limit milk to 2 glasses per day.
    d. Increase physical activity if it seems below average for your child's age. Exercise helps move stool down in the colon.
4. It is important to encourage the older child to take responsibility for his or her own actions. The child should be responsible for taking the medicine without a fight, for sitting on the toilet , and for cleaning up stool accidents. Each family must decide what level of responsibility to expect of the child. Having a calendar to mark down doses and "sits" can help keep track.

DISEASES WHICH MIMIC ENCOPRESIS

Some other diseases have symptoms similar to encopresis, but are much less common than encopresis. However, if a child does not respond to treatment as expected, other tests may be recommended to be sure that the child does not have one of these other diseases. Diseases that mimic encopresis include Hirschsprung disease, a high blood calcium level due to parathyroid disease, hypothyroidism, and spinal defects.

Counseling
Seeing a counselor may help reduce tensions children and families feel because of encopresis. The child's condition often becomes a family problem. The child may have learned to control other people by having accidents. It is important to try to avoid anger or punishment around accidents, even though this may be difficult. Most often, the child is not being naughty; he or she simply cannot feel the stool coming out. It is the child's responsibility, however, to take the medicine and do the sits without making a scene. Some children respond well to a carefully planned, consistent system of rewards for appropriate behaviors. This can be planned with the counselor.

Success!
Encopresis is curable! **Children who follow the treatment plan will be able to control their bowel movements. It may take many months for the intestine to regain strength and feeling after being stretched out for a long time. Relapsing is one of the main problems in long-term management. Some children initially control their bowel movements but after several months or even years again start holding stool back. Restarting the initial clean out, followed by maintenance therapy, will bring back control. Some children will continue to have constipation into adult life. Continuing a high fiber diet and using the stool softeners as necessary can successfully treat this.**