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Constipation

If your infant or toddler is unable to pass a bowel movement or the bowel movements are small hard pellets and your child is having belly pain, constipation may be the problem.

Bowel patterns will vary from child to child. If a child does not have at least one bowel movement each day, parents feel their child is constipated. This is not true. Breast-fed babies initially will have 8-10 bowel movements a day during the first few weeks of life. This pattern may change to one bowel movement every 2-4 days. This is normal in breast-fed babies. In fact, breast-fed babies never get constipated. Bowel patterns and consistency will change if breast-fed babies are offered formula and solid foods.

Some bottle-fed babies will have a bowel movement several times a day, while others may go every 2-3 days. This pattern is normal as long as your child's bowel movements are soft or mushy, and your baby is comfortable.

Toddlers may display signs of constipation during toilet training. Stool retention can lead to impaction (severe constipation) and soiling (staining of underwear with stool).

Anal fissures (small cuts in skin around the anal opening) can result from passing a hard stool.

Fissures are similar to cuts you get in the corner of your mouth. They are painful, bleed, and require constant lubrication to help healing. A&D ointment or Vaseline placed around and slightly inside the anal opening will help an anal fissure heal faster and cause less discomfort during a bowel movement. Hydrocortisone cream 1% (OTC) can also be used to treat redness (inflammation) and itching.

Treatment

Constipation may result from a change in the foods your child is eating or an imbalance between the foods that are binding and those that are not. Altering your child's diet is the first step to correct constipation.

1. Apple, prune, pear or apricot juices: Increase the amount of fluid your child is drinking. 4-8 ounces/day separate from the formula. Do not dilute the juice - give it full strength for maximum effect.
2. Formula change: Call our office before you change formulas. The iron in the formulas does not cause constipation. Do not use low-iron formulas as they do not contain enough iron for your growing baby.
3. Decreased Fat: Fat in the diet can cause constipation by delaying the emptying time from the stomach. The fat in whole milk is very constipating in some children. Whole milk is recommended from your child's 1st birthday until the 2nd birthday (no more than 24 ounces/day). After the age of 2, all children should be drinking low fat milk (preferably skim milk). From 1-2 years, it may be necessary to use lower fat milk until your child's constipation is improved.
4. Avoid excessive starches, pastas, crackers, pretzels, white rice, breads, apple sauce and bananas. These foods contribute to constipation.
5. High fiber diet: Fiber is an effective laxative that can be used over a long period of time. It absorbs water and prevents the stool from becoming dry and hard. Fiber increases stool bulk resulting in a laxative effect. Fiber can only be effective if it is given with adequate fluid. When you increase fiber you must also increase fluids. High fiber foods include popcorn, wheat-containing products,

vegetables and cereals such as Wheaties, Corn Flakes, oatmeal, barley, farina and All Bran. Prunes, apricots, melons, plums, figs, and raisins are examples of high fiber fruits. Encourage vegetables (broccoli, spinach, celery, lettuce). See below for a list of higher fiber foods and examples of fiber supplements.

Medicines To Treat Constipation

Bulk-forming and stimulant laxatives work by moving stools through your intestines. The addition of a stool softener is helpful when constipation is accompanied by difficult or painful evacuation. These medicines are safe, effective and non-habit forming or addictive. If your child is responding to these medicines, do not stop too soon or the problem may reoccur. You can first decrease the dose over time.

1. Maltsupex (barley malt extract): In babies, 1-2 teaspoons added to 4 ounces of formula. Start out with every other bottle and if there is no improvement in 2 days, use in every bottle. You should be able to stop the Maltsupex within 2 weeks.

2. Bulk-forming laxatives (Metamucil and Citrucel) generally are considered the safest but can interfere with absorption of some medicines. These laxatives, also known as fiber supplements, are mixed with 8 ounces of water. They absorb water in the intestine and make the stool softer. Dose: 2-5 y/o: $\frac{3}{4}$ teaspoon: 6-11 y/o: $\frac{1}{2}$ tablespoon: > 12 y/o: 1 tablespoon (3 teaspoons). can be given at one time or the total dose can be divided up and given 2-3 times/day.

3. Stimulants (Senokot, Fletcher's): Senna (active ingredient is herbal supplement) causes rhythmic muscle contractions in the intestines, resulting in faster movement through the intestines. Laxatives irritate the intestinal wall stimulating intense intestinal contractions as the body works urgently to rid itself of the irritating agent. Action occurs in 6 to 12 hours and evacuation can be solid, semi fluid, or watery.

Dose: < 5 years: 1-2 teaspoons: >5 years: 2-3 teaspoons.

4. Stool softeners: (Colace). Docusate (active ingredient) is an emollient laxative that is commonly called a stool softener. Stool softeners help to mix liquids into the stool and prevent dry hard masses. The lubricant effect makes stools easier to pass. Results usually occur within 24 to 72 hours. Evacuation is softened stool.

Dose: <3 y/o: $\frac{1}{2}$ -2 teaspoons: 3-6 y/o: 1-2 teaspoons: > 6 y/o: 1-2 tablespoons (can be given at one time or the total dose can be divided up and given 2-4 times/day).

5. Lubricants (Mineral oil, Kondremul, Lactulose) grease the stool enabling it to move through the intestine more easily. Mineral oil is the most common lubricant. Kondremul is 55% mineral oil, has less of an oily taste, and mixes better with fluids. Lactulose (prescription) is a sugar that is poorly absorbed by the intestines resulting in a softer stool.

Dose: Start with 1-3 teaspoons once a day at bedtime. Take 2 hours after dinner to lessen interference with food digestion and absorption of nutrients and vitamins. The amount can be increased up to 6 teaspoons (2 tablespoons) or until the stools become oily. It takes 6-8 hours to produce results.

6. Saline laxatives (Milk of Magnesia®, Citrate of Magnesia, and Haley's M-O) act like a sponge to draw water into the colon for easier passage of stool. Dose: one-half teaspoon for every 5 pounds of body weight (given every 8-12 hours). Example: A 30 pound child would receive 3 teaspoons (6 times $\frac{1}{2}$ teaspoon). Mix with Nestle Quick or dilute with water or juice.

If your child will not take the stool softener or laxative, trying mixing it with food (oatmeal) or mix with juice. A blender can be used to hide the taste or appearance.

Too much stool softener may cause your child to leak stool in his/her underwear (soiling). If soiling occurs, decrease the stool softener until the soiling has resolved.

What is Miralax?

Miralax is the first FDA approved new laxative in over 20 years. Miralax is a polyethylene glycol powder that dissolves in water. This material is not absorbed from the intestinal tract. It stays within the intestine and acts to pull water into the intestine thereby increasing the volume and frequency of bowel movements.

It may be necessary to use this medication for 2 to 4 days before a bowel movement occurs. It is recommended

Miralax be taken for no longer than 2 weeks.

The bottle top is a measuring cap marked to contain 17 grams of the powder (about 1 heaping tablespoon). The dose is usually ½ to 1 capful daily. Dissolve the powder in 8 ounces (1 cup) of water and drink. It is best to take the mixture first thing in the morning and can be taken on either an empty or full stomach. Store this medication at room temperature.

When Is A Pediatric Fleet Enema Necessary?

If your child is severely constipated (impacted), it may be necessary to use a Pediatric Fleet Enema (saline laxative) to clean out the impaction. If the impaction is not cleaned out, your child will continue to leak stool (soiling in underwear). Treating an impaction with only stool softeners will worsen soiling. Enemas are safe and easy to use. Use of an enema will be less upsetting to your child than remaining impacted. Do not use enemas with mineral oil. Please call if you have any questions.

Fiber Suggestions

Fiber is very important in your child's diet. It will help your child have soft and regular bowel movements. Most diets should have 2-3% fiber in them. Look over the list of foods and their fiber content, and see if you can add any foods to your child's diet that you have not thought of. You can give extra fiber by using fiber supplements that are available as a liquid (Metamucil Clear Fiber Powder: 5 grams/teaspoon) or Chewable Gummies.

Recommended amount of fiber per day: 5 - 8 grams + child's age in years

TYPE OF FOOD	DIETARY FIBER (gm of fiber/100 gm of edible food)
Breads	
White	2.72
Whole Wheat	8.50
Breakfast Cereals	
All-Bran	26.7
Cornflakes	11.0
Grape Nuts	7.0
Rice Krispies	4.47
Puffed Wheat	15.41
Sugar Puffs	6.08
Shredded Wheat	12.26
Special K	5.45
Vegetables	
Broccoli tops, boiled	4.10
Brussels sprouts, boiled	2.86
Cabbage, boiled	2.83
Cauliflower, boiled	1.80
Lettuce, raw	1.53

Onions, raw	2.10
Carrots, boiled	3.70
Turnips, raw	2.20
Baked beans, canned	7.27
Peas, canned	6.28
Potatoes, french fried	3.20
Tomatoes, fresh	1.40
Tomatoes, canned	0.85
Sweet corn, cooked	4.74
Fruits	
Apples, without skin	1.42
Bananas	1.75
Grapefruit, canned	0.44
Peaches, with skin	2.28
Pears, without skin	2.44
Plums, with skin	1.52
Strawberries, raw	2.12
Nuts	
Brazil	7.73
Peanuts	9.30
Peanut butter	7.55

This information should not be used as substitute for the medical care and advice of your child's physician. Health related topics found on the Andorra Pediatrics web site should not be used for diagnosing purposes or be substituted for medical advice. As with any new or ongoing treatment, always consult your professional healthcare provider before making any changes in treatment or beginning any new treatment. If you have any questions or concerns, please call our office.