HOW TO HELP YOUR CHILD WITH CONSTIPATION

NATURAL ALTERRNATIVES TO MIRALAX

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A note from Dr. K...

I have outlined an approach that I typically use with my patients who have constipation (ranging from mild/moderate to severe). Always check with your child's physician before starting any new treatment program. It is incredibly important to rule out bowel impaction or any serious medical cause of constipation before starting any treatment, as it has the potential to be dangerous.

Naturopathic physicians like myself always like to address the underlying cause of why a child has constipation in the first place. (Inadequate fiber? Not enough water? Poor digestive function?) Giving herbs or medications to treat a symptom is not enough, and will quickly lead to relapse. This checklist is designed to start with, and address the foundations of health first!

Warning signs

If your child has any of the following signs or symptoms they should have a thorough workup by a pediatrician or gastroenterologist. Do not move on to the following steps until your child has a diagnosis that explains these symptoms AND your child's provider agrees to the following treatment steps. These warning signs/symptoms are NOT normal and are signs of a potentially more serious condition:

- Failure to thrive
- Delayed passage of meconium
- Abnormal bowel habit since birth
- Sensitivity to cold, fatigue, dry skin
- Is very pale
- Weight loss
- Absent or brisk lower limb reflexes
- Mouth ulcers
- Blood or mucus mixed with stool
- Perianal skin tags or fistulae
- Poor muscle tone ("floppy" or very weak)
- Fever

Checklist for treatment

Speak with your child's physician about their recommended approach to constipation treatment. Naturopathic physicians typically recommend using the following approach in a step-wise fashion. Start with the check-boxes at the top of the list (e.g., increase dietary fiber). If there is no improvement then move on to the next check box. The first three check boxes can be done simultaneously. After this most physicians will recommend trying only 1-2 check boxes at a time for a period of a few days to a few weeks. Bowel retraining can (and should!) be completed alongside all the other steps.

- ☐ Increase dietary fiber
  - Using Healthy Eating Plate to teach fiber intake
  - Using Constipating/Non-Constipating Foods Chart to teach fiber intake
- ☐ Increase hydration
- ☐ Eliminate dairy (x 2-3 weeks)
  - Investigate other food sensitivities, if necessary
- ☐ Stimulate peristalsis
  - Add probiotics (2-3 weeks to see improvement)
  - Consider ginger root tincture, glycerine or extract, especially with older children
  - Consider bitters
- ☐ Bowel retraining
  - Daily routine and rewards
- ☐ Stimulating a bowel movement as a part of bowel retraining
  - Physical activity/knee-chest position
  - Castor oil abdominal massage
  - Sorbitol-containing fruit juice
  - Magnesium citrate as a laxative
  - Senna or other stimulating laxative

- Glycerine suppositories
- Saline enema

☐ Ask your child's physician for basic bloodwork (see below) or a referral to a gastroenterologist.

As a naturopathic physician I would consider the following labwork for a child who is not improving:

- Thyroid screening (TSH, free T4)
- Comprehensive metabolic panel
- Celiac disease antibodies
- Whole blood lead
- Consider IgG food sensitivity testing, if not previously completed.
- Consider stool culture & sensitivity or comprehensive digestive stool analysis test - rule out dysbiosis, especially bacteroides, clostridia and pseudomonas species. Treat if necessary.

If no abnormalities in labwork consider referral to gastroenterologist for manometry and gastric transit studies.

WHAT IS NORMAL?

A guideline for what is considered “normal” bowel habits for children

Babies age 4 days to 1 month usually have 4 or more bowel movements (poops) each day. They are usually liquidy or extremely soft.

Babies 1 month to 6 months can have bowel movements as often as several times per day, or as infrequent as once per week. Breastfed babies tend to have less frequent poops because breastmilk is highly absorbable, which doesn't leave much "left" to make a poop with. If babies are very uncomfortable when passing stool (poop) then this is still considered problematic.

By age 6 months+ or after transitioning to solid foods most children have at least 1 bowel movement per day. They should be easy to pass, formed, no blood in the stool, not pellet-like. Ideal is at least 1 bowel movement per day (though it can be technically “normal” to go 2-3 days without defecating).

If your child doesn't meet the guidelines listed above, or is having painful stools or behavior changes around the time of defecation then this would be considered abnormal stooling behavior.

STEP 1: INCREASE FIBER

Lack of fiber is the most common cause of constipation in kids.

To understand why fiber works we have to understand a little about the anatomy and physiology of the intestines. Food is mechanically and chemically digested by the stomach using a churning and mixing motion and by using acid to break up food particles. Food is then further digested and absorbed in the small intestine by use of pancreatic enzymes and enzymes on the lining of the small intestine itself. By the time food reaches the end of the small intestine all digestible/absorbable food should be gone and completely absorbed. Everything else (mostly dietary fiber) gets dumped into the large intestine. Dietary fiber forms the bulk of "food" that cannot be digested and absorbed – this leaves extra material for the large intestine (or "colon") to squeeze together and form into stool (poop). **Dietary fiber is incredibly important because it is what feeds the good gut bacteria ("happy bugs").**

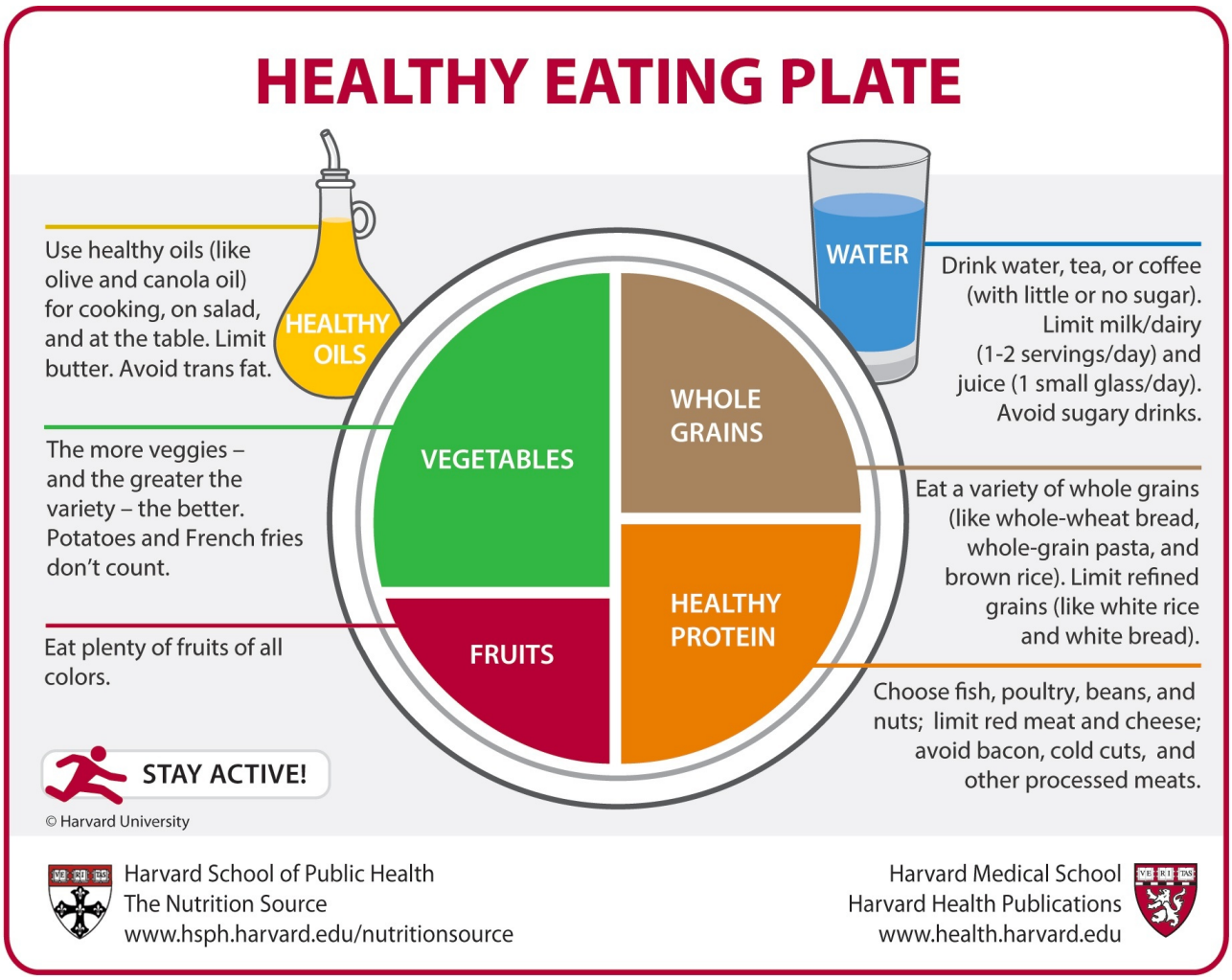
These "happy bugs" provide lots of awesome nutrients for our colon and help regulate our immune system. They also help stimulate the nerves that squeeze the colon and physically push out a poop.

No fiber = nothing for the colon to push against! No fiber = no happy bugs. (No happy bugs = unhappy immune system and no stimulation of the nerves.) No fiber = no poop!!!

The general recommendation is for children to consume 5-10 grams of fiber per day plus the child's age. [3)] (e.g., a 2 year old should have 7-12 grams of fiber.) This is an excellent recommendation, but most families have absolutely no idea what that means.

Below are two great strategies for ensuring good fiber intake. You can try one or both methods to make sure your child is getting enough fiber.

Strategy #1: Healthy Eating Plate



In my office I like to do a drawing of a plate – here we can use the image from Harvard Public Health. The most important thing to notice about the plate is that half the plate is fruits and vegetables. If you are making spaghetti and meat sauce as your main dish (or falafel, or rice and beans, or quinoa and chicken, or chicken nuggets and brown rice, or hot dogs, or whatever) – your main dish should fill up no more than half the plate. The other half needs to be filled with fruits and vegetables! This is the easiest way to guarantee having enough fiber.

Strategy #2: Constipating vs. Non-Constipating Foods List

Write a list of all the foods your child has eaten in a day and put them into this chart**.**
The non-constipating foods should be more than the constipating foods.

Constipating foods	Non-constipating foods

Examples of constipating foods:
All dairy products (cheese, milk, yogurt, ice cream), meats, starchy grains (like white rice), starchy vegetables (sweet potato, squash), potato products (french fries, potato chips, baked potatoes), fried foods (donuts, fried chicken, etc), most processed foods (crackers, cookies, snack products, pretzels, etc, unless specifically listed as "high fiber"), white bread or "soft" wheat bread, pasta. Fruit juice (without pulp) is also low in fiber.

Examples of non-constipating foods:
Most vegetables, especially green leafy vegetables, most fruits (not fruit juice, except prune juice), whole grains (quinoa, brown rice, whole wheat, oats), nuts, seeds, beans (legumes).

Foods that are highest in dietary fiber include pears, strawberries, raspberries, carrots, broccoli, lentils, kidney beans, quinoa, chia seeds and oats.

Please note that I do not recommend over-the-counter fiber supplements like metamucil or fiber gummies to increase fiber. Dietary fiber needs to come from the diet – not supplements! Also, I see a lot of kids (and adults) have bad reactions to wheat-based fiber supplements, or psyllium-based supplements like metamucil. We know that some sensitive kids and adults can end up with Irritable Bowel-like symptoms from the use of these types of fiber supplements.

Summary

- Children should eat **5-10 grams of fiber per day plus the child's age**
    - Example: 2 year-old needs 7-12 grams of fiber per day.
- **Follow the "1/2 the plate" rule:**
    - Half of your child's plate should be fruits and vegetables.
- **Use the constipating vs. non-constipating foods list.**
    - Your child should be eating more non-constipating foods than constipating foods. (The right hand column should be more than the left-hand column!)

STEP 2: HYDRATE

Yes, hydration really makes a difference!

When you increase fiber it will automatically draw water with it. This means that kids who are increasing their fiber intake need to drink more than they did before. Without increasing water intake there is a chance that increasing fiber will actually make constipation worse!

Make sure your child is not consuming any caffeinated beverages (sodas, energy drinks or coffee drinks). Kids should drink 4-8 cups of water per day – preferably one big glass with each meal.[1)] Kids who are dehydrated may need to simply drink more water in order to have their constipation improve. Consult your physician if your child has any kidney, cardiovascular, or metabolic problems.

Summary

- Make sure your child is drinking plenty of water. **Aim for 4-8 cups of water per day, or 1/2 the child's weight in ounces.**
- When increasing fiber it is incredibly important to increase water intake. **High fiber diets can worsen constipation if the child does not drink enough water.**

STEP 3: ELIMINATION DIETS

Dairy is the number 1 culprit

The first food I recommend eliminating is cow's dairy. We know that **greater than 1 in 3 children with constipation are dairy sensitive.** [4] Kids with dairy sensitivity are more likely to have a runny nose, skin rashes and asthma than other children. [5] I highly recommend all children with severe constipation to do a cow's dairy-free diet for at least 30 days, or 60-90 days if your child has the additional symptoms listed above. I recommend switching to a non-dairy milk like Almond, Flax, Hemp or Rice milk. (I do not recommend soy milk unless it is in rotation with other dairy-free milks, as there is a concern that the phytoestrogens in soy could alter hormones in both boys and girls.)

Remember that even in non-sensitive kids excessive cow's milk intake will lead to constipation at high amounts. Kids need no more than 1 cup of milk three times per day to meet calcium requirements (and there are lots of other ways to get calcium that are dairy-free). That translates to 1 milk for each meal. I often see problems with kids who sip on cups (or sippy cups) of milk throughout the day. Remember that excessive cow's dairy can also cause iron deficiency anemia, which is a huge problem for development. [6] (Iron deficiency anemia can be hard to detect in kids; sometimes the only symptoms are behavioral problems, ADHD, or problems in school.)

Other food intolerances

The next most frequent food intolerance is gluten. I always recommend children to be screened for celiac disease *before* starting a gluten-free diet. Children need to be consuming

gluten regularly for at least 3 weeks in order to get a reliable celiac test. After screening for celiac disease children should be placed on a no-gluten diet for at least 30 days to see if there is any benefit. I do not recommend eliminating gluten unless children truly need it.

After gluten, soy tends to be the next more common intolerance. Again, try 30 days soy-free to see if it makes a difference.

Next frequent food intolerances include eggs, yeast, bananas, nightshades and corn. For more information on how to do a food elimination challenge/diet please see the Naturopathic Pediatrics Elimination/Challenge Diet Guide.

Low FODMAP diet or Specific Carbohydrate Diet

Children who have symptoms of Irritable Bowel Syndrome may benefit from a **low FODMAP diet** or a **Specific Carbohydrate Diet**. Symptoms of IBS include pain, cramping, gas, constipation or constipation alternating with diarrhea, and mood symptoms like anxiety, fatigue or depression. Nearly all IBS patients have constipation or diarrhea that worsen in times of stress or anxiety.

I highly recommend consulting with your child's medical provider *before* starting one of these diets, as they can be very restrictive in growing children. If your child has a diagnosis of IBS it may be worth a try, however.

A Low FODMAP Diet restricts "FODMAP" foods. FODMAP stands for "fermentable oligosaccharides, disaccharides, monosaccharides and polyols." FODMAP foods are essentially highly fermentable food products that can "feed" abnormal intestinal bacteria.

The tricky part with low FODMAP diets is that most children with constipation need to be consuming extra high fiber foods to continue to promote normal bowel function. But in children with IBS some of those same high fiber foods can trigger a worsening of symptoms.

A Low FODMAP diet does not have to be completely low in fiber, just highly fermentable foods. For more information on a low FODMAP diet please see our articles on www.naturopathicpediatrics.com by typing FODMAP into the search box.

The **Specific Carbohydrate Diet (SCD)** is used to treat Crohn's disease, Ulcerative Colitis and to encourage intestinal healing in patients with Celiac disease. SCD allows meats, vegetables, fruits, nuts and nut flours, many condiments, hard cheeses (like cheddar) and homemade 24-hour yogurt. It does not allow any grains, milk products with lactose (ice-cream, milk, sour cream, commercial yogurt), starchy vegetables like potatoes, sugar, and most legumes. For more information read the book "Breaking the Vicious Cycle" by Elaine Gottschall which details the Specific Carbohydrate Diet and gives a wonderful overview of how the digestive system works.

Summary

- **Cow's dairy** is the number one food-cause of constipation. More than 1 in 3 children with constipation are dairy sensitive.
    - **Eliminate all cow's milk, cheese, yogurt, ice-cream, and any milk products for at least 30 days.**
- Speak with your physician about eliminating other foods if necessary. Next frequent food intolerances include **gluten, soy, eggs, yeast, bananas, nightshades and corn**. For more information on how to do a food elimination challenge/diet please see the Naturopathic Pediatrics Elimination/Challenge Diet Guide.
- If your child has **Irritable Bowel Syndrome** speak with your physician about trying a **Low FODMAP diet** or **Specific Carbohydrate Diet.**

STEP 4: STIMULATE PERISTALSIS

What is peristalsis?

Peristalsis is the movement of the entire gastrointestinal system from "top" to "bottom" (esophagus to rectum). It is what pushes food in a downward direction. Peristalsis causes the intestines to squeeze in a normal snake-like manner, so that a lump of food travels through the tube.

Movement in the intestines is regulated by the enteric nervous system. In a sense, it is like a mini "brain" in the gut! The same neurotransmitters that influence our mood (serotonin, for instance) are also active in our intestines, and can change the way our intestines contract.

In the large intestine (the colon) there is a special type of peristalsis called mass movements or giant migrating contractions which sweep the intestines clean. These mass movements occur 1-3 times a day, and push stool toward the rectum to initiate a bowel movement. See an awesome video of peristalsis in the large intestine.

Children with constipation often have – or develop – abnormal peristalsis. The normal "wave" that should push food down and out in a bowel movement becomes impaired, which makes it difficult to defecate.

Probiotics

Probiotics, especially high-dose probiotics can improve peristalsis and intestinal motility. Probiotics have been shown in infants to increase number of evacuations per day and reduce colic. [7] Specifically *L. reuteri* has been shown to be helpful in infants. For older children and adults probiotics have been shown to speed transit time of the gut (how fast things move through our intestines), and reduce constipation. [8] The research is mixed on types of probiotics for older children and adults. *Lactobacillus rhamnosus* has the best evidence, with

some smaller studies supporting the use of *Lactobacillus reuteri, Bifidobacterium longum,* and [9-14] Remember that many over-the counter probiotics are notoriously terrible – many brands have been studied and were shown to contain no active, alive strains – or worse, some were shown to have the wrong strain of probiotic.

Brands that I recommend are Pharmax HLC series, Seroyal/Genestra HMF series, or Klaire Labs probiotics. Personally I use Klaire Labs probiotics, as they have excellent research and have been very helpful in clinical practice. These probiotics are found in pharmacies and physician's offices only. If you cannot find these probiotics via a physician I recommend www.seekinghealth.com probiotics, as they are very similar strains. For most patients I recommend a mix of *Lactobacillus* and *Bifidobacteria* species, with rare exceptions (e.g., histamine-intolerant patients may need to find specific strains). Most of my patients see significant benefit from a variety of strains rather than just *Lactobacillus rhamnosus,* for example. Because probiotics have so many other truly beneficial effects – possibly preventing colds & flu's, preventing asthma, decreasing allergic responses – I highly recommend this therapy.

Children with severe fecal impaction or suppressed immune systems could potentially have negative side effects from probiotics. As with all therapies I recommend consulting your physician first.

If your child has symptoms similar to Irritable Bowel Syndrome and they worsen with probiotic supplementation, then I recommend a FOS-free probiotic like Klaire Labs Lactoprime Plus or Seeking Health ProBiota Sensitive. FOS stands for fructooligosaccharide, and is essentially a "starch" that feeds the probiotic. In children and adults with IBS this same starch can feed abnormal bacteria, which worsens symptoms. For many children with severe IBS or constipation it may be a good idea to test for abnormal intestinal flora, or for Small Intestinal Bacterial Overgrowth, both of which may exacerbate constipation.

Herbal options

Ginger has been shown to speed gastrointestinal motility. [15] Older children can take over-the-counter ginger capsules, younger children can try ginger chews or ginger glycerite drops. Ginger can (and often does) cause upset stomach or burning, so be cautious.

Herbs which are under the category "Bitters" can also be helpful for atonic constipation. Herbal bitters like Yarrow, Gentian, Blue Flag, Dandelion, and Berberine-containing herbs (like Oregon Grape and Berberis) may all be helpful. Most bitters are contraindicated in pregnancy, breastfeeding and early infancy, and can cause significant harmful side effects if dosed improperly. They should be administered in small doses (e.g., 5-15 drops for adults, or as little as a fraction of a drop for children, diluted with other herbs). They taste best and are safest when mixed with other herbs, for example ginger syrup, fennel tea, "tummy glycerite" (a blend of mint family herbs in glycerine), or the classic combination of Gentian and Scutellaria. Always start with a very small dose administered 5-15 minutes before meals, then increase the dose over time if it does not seem helpful. Side effects can include nausea, vomiting, reflux and gallbladder spasms; be cautious!

Here is my favorite "bitters" formula: take equal parts Mahonia aquifolium tincture, Scutellaria laterifolia tincture, and Kalmerite Glycerite. (Kalmerite is a blend from Wise Woman Herbs. You could also swap Tummy Glycerite or Lemon Balm Glycerite). Dose: 2 drops - 30 drops in water before meals. Start with the smallest dose and increase over time.

For all herbs I do recommend consulting an experienced herbalist or naturopathic physician, as they can cause significant side effects if dosed incorrectly.

Acupuncture and acupressure

Acupuncture has also been shown to improve constipation by speeding gut motility. [16-18)] Acupuncture is helpful for so many things, especially relaxation and decreasing the “nervous” response. Make sure to find an acupuncturist who is very experienced with children.

Some research also shows that acupressure to the perineum also helps chronic constipation. There are a number of images and videos of acupressure points and perineal pressure points that can be found with a simple Google search. (Warning, pictures of the perineum are graphic.)

Summary:

- Peristalsis is the movement of the entire gastrointestinal system from "top" to "down" (esophagus to rectum). It is what pushes food in a downward direction. Peristalsis causes the intestines to squeeze in a normal snake-like manner, so that a lump of food travels through the tube.
- **Children with constipation often have - or develop - abnormal peristalsis**. The normal "wave" that should push food down and out in a bowel movement becomes impaired, which makes it difficult to defecate.
- Things that stimulate normal peristalsis:
    - Probiotics
    - Ginger
    - “Bitter” herbs
    - Acupuncture or acupressure

STEP 5: BOWEL RETRAINING

Bowel retraining is the most important step in permanently curing constipation.

Bowel retraining involves changing behavior and stimulating normal peristalsis at normal times of the day.

Have your child sit on the toilet at least daily. [1)] Some physicians recommend several times per day, preferably after meals. At a minimum I recommend setting the child on the toilet at the same time each day, preferably in the morning (either upon waking or after breakfast). It is normal and physiologic to wake up and need to have a bowel movement – I prefer to encourage a morning bowel movement to mimic nature as closely as possible.

This is especially important for school-aged children who often hold stools during the day to avoid using a public bathroom.

Here is the key: toilet time must be highly reinforced with positive encouragement and rewards. It must be a positive experience each and every time the child sits on the toilet. Oftentimes children need to be bribed or rewarded heavily – use sticker charts, reading favorite books, favorite treats/snacks, watching TV or playing games on the phone – whatever works. (It's okay to throw out the "parenting rules" a little bit – at least at first.) Remember that many kids have very negative associations with the toilet when they become severely constipated, and we need to completely change that association. Make sure to not punish the child for bathroom accidents or inability to have a bowel movement.

Bowel retraining involves changing behavior and stimulating normal peristalsis at normal times of the day.

Stimulating a bowel movement as a part of bowel retraining

Follow your physician's advice on which laxative to use first.

1. **Physical activity and knee-to-chest positions.** Keep your child physically active. Lack of physical activity has been shown to increase obesity and constipation. [19] For younger children you can try the "knee-to-chest" position which places pressure on the bowels and relaxes the rectum/anus making it easier to have a bowel movement. For older children you can encourage them to play sports or do squats.
2. **Castor oil abdominal massage.** Apply a small amount of castor oil to your fingertips. Using gentle motion and flat fingers, move your hand in a clockwise motion over your child's abdomen. Castor oil is anti-inflammatory and extremely soothing. You can consider adding 1-2 drops of lavender or peppermint essential oil in 1 tablespoon of castor oil for older children. Use about 1/2 - 1 teaspoon of this mixture, more if necessary to lightly coat the abdomen. For more information see Dr. Harpster's article at **http://naturopathicpediatrics.com/2015/01/19/tummy-massage-every-body/** Alternately, you can do a flannel castor oil pack to the abdomen and leave it on over night. (See your naturopathic physician for guidelines on how to do a castor oil pack.)
3. **Prune juice or other sorbitol-containing juice.** Sorbitol is a sugar alcohol (but it is not alcoholic, so there is no need to worry about giving this to your child). Sorbitol is very slowly absorbed by our intestines and tends to draw water into the gut which relieves constipation. You can try prune juice (organic) or Fruit-Eze paste. Children with gut dysbiosis or small intestinal bacterial overgrowth (SIBO) tend to worsen on sugar alcohols - if this happens to your child then contact your physician for a stool or breath test to check on this.
4. **Magnesium hydroxide (Milk of Magnesia) or Magnesium citrate.** If stools are still not soft enough to have a bowel movement then it may be time to consider a laxative to help get the process started. Follow dosage instructions from your physician or see chart below. Most children will need to continue to use the laxative for a period of a few weeks

to potentially months until they establish normal bowel habits. **Speak with your child's physician before starting magnesium** - very rarely it may be "contraindicated" (not to be used) in children with certain kidney conditions, or may interfere with their medications. Look for a milk of magnesia without added ingredients.

Laxative	Dose*	Timing
Magnesium hydroxide. Osmotic laxative. (Brands: Phillips, Milk of Magnesia, Pedia-lax saline laxative)	Choose dosage of 400 mg/5 ml. (It comes in 400 mg/5 ml and 800 mg/5 ml). Children age 1-11: 1-3 ml/kg or 0.5 - 1.5 ml/lb. Max dose 60 ml daily (in divided doses or individually). **Example: 1/2 - 1 ml for each pound your child weighs. (15 - 30 ml for a 30 pound child.)** Children age 12-adult: 30-45 ml daily of 400 mg/5ml solution, or 15-30 ml daily of 800mg/5 ml solution.	Stools in 30 min - 6 hours
Magnesium citrate. Osmotic laxative. (Brands: Swan Citroma, Equate magnesium citrate, CALM magnesium, and many others, including professional brands.)	Children <6 y/o: 2-4 ml/kg or 1-2 ml/lb daily of 1.745 g/30 ml solution. Children 6-12 y/o: 100-150 ml daily of 1.745 g/30 ml solution. **Example: 1 - 2 ml for each pound your child weighs.** (Swan Citroma or Equate Magnesium citrate). **OR** Powdered Magnesium Citrate: Children >6 y/o: start with 500 mg Magnesium Citrate (e.g., CALM brand), increase by 250 mg daily until loose stools form. Children <6 y/o: start with 250 mg Magnesium Citrate, increase by 125 mg daily until loose stools form.	Stools in 30 min - 6 hours.

5. **Senna tea, drops, or tablets.** Stimulating laxatives tend to be habit-forming, so consult your physician before using. Limit use to 2 weeks before transitioning to magnesium, prune juice, or other laxative. Senna products are often sold under the brand name "Ex-Lax." Though they frequently have some artificial colorings, flavoring and preservatives, they are readily available. Look for natural alternatives with equal dosage amounts in your local natural health food store if your child is sensitive to artificial ingredients. Again, speak with your child's physician before starting any Senna products. * (see references for dosage instructions)

Laxative	Dose	Timing
Senna. Stimulant laxative. (Brands: ExLax, Senokot, Fletcher's laxative for kids, various other senna syrups and teas.)	Senna syrup, 8.8 mg sennosides/ 5 mL or tablets 8.6 mg sennosides/tab. 1 - 2 years: 1.25 - 2.5 ml, once to twice daily 2 - 6 years: 2.5 - 3.75 ml, once to twice daily 6 - 12 years: 5 - 7.5 ml (or 1-2 tabs), once to twice daily 12 - adult: 5 - 15 ml (or 1-3 tabs), once to twice daily	Stools in 6-12 hours

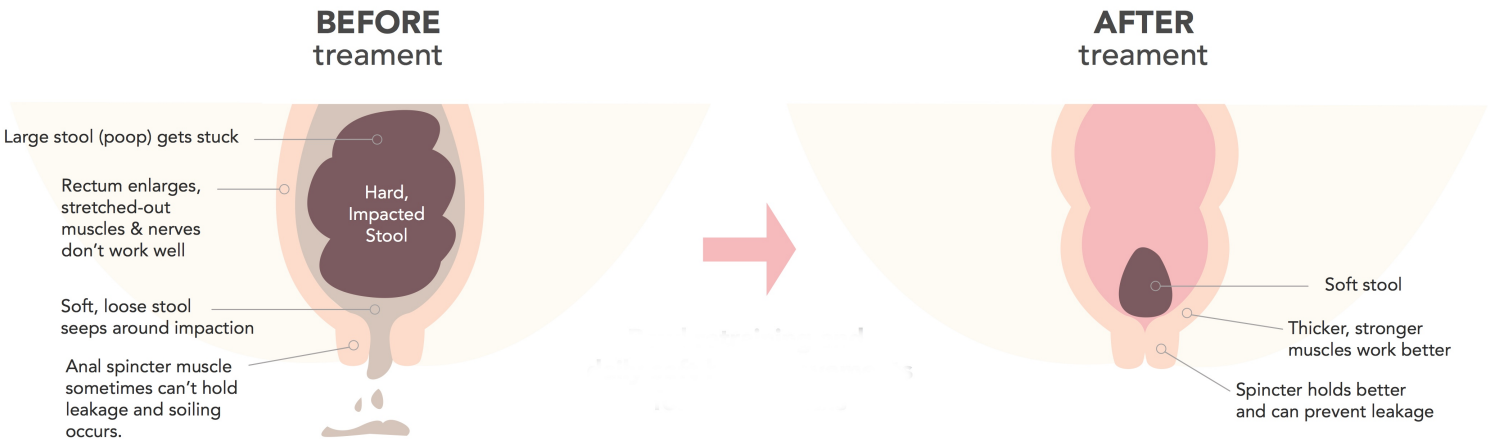
6. **Other laxative alternatives:** Sorbitol 70% solution (not fruit juice), Lactulose 70% solution, or mineral oil can also be given. Vitamin C given in large doses can also provide laxative effect, but the dosage varies from patient to patient, and should be given under physician supervision.

Laxative	Dose*	Timing
Sorbitol 70% solution. Osmotic laxative	Children age 1-11: 1 ml/kg, 1-2 times per day. (Max dose 30 ml/ day) Children age 12-adult: 15-30 ml once to twice daily	Stools in 24-48 hours

Laxative	Dose*	Timing
Lactulose 70% solution. Osmotic laxative.	Children age 1-11: 1 ml/kg, 1-2 times per day. (Max dose 30 ml/ day) Children age 12-adult: 15-30 ml once to twice daily	Stools in 24-48 hours
Mineral oil. Lubricant laxative. (Multiple generic brands available.)	Children age 1-11: 1-3 ml/kg, once daily (maximum 45 ml daily) Children age 12 - adult: 15-45 ml once daily	Stools in 6-8 hours. Oil seepage is common.

7. **Glycerine suppositories.** These can be helpful in infants or young children who have fecal impaction. The glycerine hydrates the stool which makes it easier to pass. Remember that these can also be habit forming, especially in younger children and infants. (Many infants who require disimpaction with a rectal thermometer will learn to only have a bowel movement when the thermometer is inserted - it becomes a conditioned response.)
8. **Saline enema.** If fecal impaction is present then sometimes an enema is the only way to loosen the stool and remove the impaction. It is incredibly important to use enemas correctly - **they may be uncomfortable, but they should NOT cause pain for the child.** Always consult your physician before administering an enema, they can be dangerous if given inappropriately.

Chronic Constipation



Timeline for treatment

When children are chronically constipated they often end up with a large mass of stool (poop) in the rectum that never completely passes. This is called "fecal impaction." When this stool builds up the rectum enlarges and the muscles and nerves stretch out and don't work well. This makes constipation worse.

Many times children will need a "bowel cleanout" to completely get rid of the fecal impaction. (See next page.) This can include either high doses of a laxative or moderate doses of laxative plus an enema. Always consult with your child's provider before doing the cleanout phase.

After this time they should continue bowel retraining and, if necessary, long-term laxative therapy for at least 3-6 months. Those stretched out muscles and nerves take weeks to months to recover. In fact, if your child has been constipated for more than a year it can take 12 months to recover! Stopping treatment early will lead to a recurrence of constipation, and then you may need to start all over again.

How to do a bowel cleanout:

Plan ahead:

- Speak with your child's medical provider first.
- First titrate a dose of an osmotic laxative like magnesium or sorbitol (pick 1-2 listed above). Increase the dose steadily over a period of 3-7 days until you reach "mashed potato" consistency stools. This will be your child's maintenance dose.

Timing & logistics:

- Start the actual cleanout on a weekend or when your child will be home for at least 2 days.
- Make sure your child stays hydrated with water and/or electrolyte-containing drinks for the 1-2 days that they are completing the bowel cleanout. They should consume at least 1/2 their weight in ounces of fluid, plus 1-2 eight-oz cups or to thirst. Bone broth, meat or vegetable stock, or electrolyte drinks (like Recharge brand) can be helpful to restore electrolytes in children who have significant diarrhea. We generally have our patients avoid Pedialyte due to the excess of artificial ingredients.
- Have your child stay close to the bathroom until they have passed a large bowel movement.
- Stay close to your child and provide them emotional support. Some bowel cleanouts can be uncomfortable for the child, especially if they are already hesitant to have a regular bowel movement. Reassure them that the discomfort will be over when they pass a large bowel movement.

Choose either Saline Enema or Stimulant Laxative:

- Saline enema: give your child one saline enema, following the instructions on the next page. Your child should have a very large bowel movement. If not consult your child's doctor.
- Stimulant laxative: give your child a stimulant laxative (see dosage chart above) twice daily for 1-2 days until a very large bowel movement occurs.

Directions for administering an enema:

- Have your child lie on his stomach with knees pulled under him, or in a hands and knees (crawling) position. Place plenty of towels underneath the child in case of leakage.
- Remove the protective cap and lubricate the tip of the enema with KY jelly or another lubricant.
- Gently slide the tip past the anal sphincter, pointing the nozzle in the direction of the child's belly button. Push gently and follow the path of least resistance. Push the tip or nozzle 1-2 inches into the rectum. **STOP if the child is in distress.**
- Squeeze a few tablespoons of solution into the rectum, or follow directions from your physician. Squeeze the enema tube very gently to give a small, slow stream of solution into the rectum.
- Remove the enema tip and place the child on the toilet. If they are unable to have a bowel movement within 15 minutes then try again with another enema, using slightly more solution.
- **Again, STOP if the enema is causing pain at any point!**

Enemas should not be used in infants unless otherwise directed by your physician.

After the bowel cleanout:

Have your child continue their maintenance laxative dose for at least 3-6 months. The goal should be mashed-potato consistency stools. This helps the stretched-out nerves and muscles recover. Note: your child's laxative dose may change over time. Adjust it up or down very slightly if your child experiences diarrhea or hard stools. Magnesium dose in particular tends to change over time as your child's magnesium deficiency is repleted (needs less magnesium), or if your child is under stress (needs more magnesium).

Summary:

- Bowel retraining is the most important step in permanently curing constipation.
- Have your child sit on the toilet the same time each day. Reward your child for trying to have a bowel movement.
- Stimulate a bowel movement:
    - Use physical exercise & movements (knee-to-chest position or squats).
    - Do a castor-oil abdominal massage.
    - Try a laxative, suppository or enema to help bowel movements pass.
- Children with chronic constipation often end up with fecal impaction. These children will need a bowel cleanout and long-term laxative therapy to help the stretched-out muscles and nerves to return to their normal shape.
    - Complete a bowel cleanout.
    - Have your child continue bowel retraining, and if necessary continue to use daily laxatives for at least 3-6 months. Your child should have mashed-potato consistency stools, with at least daily bowel movements.

WHAT TO DO IF THIS IS NOT ENOUGH

If these tricks don't work then it is time to do a more thorough work-up with your physician. Consider scheduling an appointment with a naturopathic physician who specializes in pediatrics. To find one near you go to www.pedanp.org.

In my office my next step is often to test stool flora for abnormal organisms and parasites, screen for inflammatory bowel disease, and possibly test for other food sensitivities and allergens. I often complete bloodwork for celiac disease, lead toxicity, and B12 deficiency. I also address the social factors (embarrassment of stooling, etc.)

Conventional medical options include medications to stimulate intestinal motility, sacral nerve stimulation devices, and antegrade continence enemas.

I also recommend consulting with a pediatric physical therapist who is trained in biofeedback and/or pediatric pelvic floor physical therapy. This type of specialization is quite rare, so it may be difficult to find in your area. For more information see our article: https://naturopathicpediatrics.com/2020/03/13/physical-therapy-constipation-children-pediatrics/

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