

Are you all plugged up? – A Patient’s Guide to Constipation

What is Constipation?

Constipation is defined by Webster’s Dictionary as difficult, incomplete, or infrequent evacuation of dry hardened feces from the bowels. However, constipation can mean different things to different people. Everyone’s bowel habits are unique, and therefore their definition of being constipated is also unique. One person may have a bowel movement three times a day like clockwork, so when they start having only one bowel movement a day, they consider themselves constipated. Another person may only have a bowel movement three times per week, yet they do not consider themselves constipated at all. Some believe that a healthy evacuation should happen 2-3 times per day, formed, and easy to pass. To put it into perspective, a total of at least 12 inches of stool should be passed every 24 hours.

Common Signs & Symptoms of Constipation

Because the body is unable to expel its waste products, there are numerous effects this can have, such as:

- abdominal bloating
- abdominal distension
- stomach ache/body aches/headaches
- difficulty passing stools
- hard, dry, small stools
- loss of appetite
- nausea/vomiting
- cramping
- body odor
- fatigue



Common Causes of Constipation

Dehydration – Most individuals do not consume enough liquids in their diet, and this can lead to constipation. The body is trying to hold on to as much water as possible so this causes fecal matter to become hard and dry.

Inadequate Fiber Intake – Most individuals are also lacking in the amount of fiber they consume in their daily diet. Fiber is the indigestible portion of plants, and is important for the health of the digestive tract and in lowering cholesterol. The American Heart Association recommends getting at least 14 grams of fiber for every 1,000 Calories consumed.

Medications – There are many medications, both prescription and over-the-counter, that can cause constipation, and a short list includes:

- iron supplements
- codeine-containing products
- antidepressants
- verapamil, and other heart medications
- calcium supplements
- antihistamines
- aluminum-containing antacids
- multivitamins (especially those containing iron)
- laxatives (used improperly/abused)

Other Causes – There are also a variety of other metabolic disorders and health conditions that can lead to constipation, and some possibilities include:

- high calcium levels
- decreased thyroid function
- kidney failure
- diabetes
- depression
- spinal cord injuries
- pregnancy
- advancing age
- resisting the urge to defecate
- problems with the colon or rectum

Non-Drug Strategies to Avoid Constipation

Increase water consumption - It is usually recommended to drink at least 8-10 glasses of water everyday (1 glass = 8oz of water). Beverages containing caffeine or alcohol should be avoided since they both have diuretic effects, and this can lead to further dehydration.

Increase fiber consumption – As mentioned previously, the AHA recommends consuming at least 14 grams of fiber for every 1,000 Calories ingested, with the optimal amount being 25-30 grams per day. Two kinds of fiber exist, soluble and insoluble. Soluble fiber is semi-soluble in water and takes on a gel-like texture within the intestines to help soften the stool and make it easier to pass. A few examples of foods containing soluble fiber include apples, apricots, bananas, grapes, dried beans, and oats. In contrast, insoluble fiber remains mostly unchanged in the intestines and adds bulk to stools which then stimulates bowel contractions, or peristalsis. A few examples of foods containing insoluble fiber include wheat bran, whole grains, and skins of fruits and vegetables.

Increase physical activity – Exercising regularly can help stimulate bowel movements. Walking 15-20 minutes several times per week is adequate.

Natural & Over-the-Counter Treatments for Constipation

Stool Softeners – After lifestyle changes, stool softeners are often recommended to help constipation. These agents work in the small and large intestine by facilitating the movement of water into the stool, therefore making it softer and easier to pass.

Laxatives – These agents are taken to help induce bowel movements. There are four major types of laxatives: 1) bulk-forming, 2) lubricant, 3) osmotic and 4) stimulant.

- **Bulk-forming laxatives** are essentially fiber-containing products, and they work both in the small and large intestine to increase the bulkiness and water content of the stool. These can be taken on a daily basis without risk of dependence.
- **Lubricants**, such as mineral oil work within the large intestine to make the stool more slippery and easier to pass. This type of laxative should not be used on a regular basis because it can prevent the absorption of the fat-soluble vitamins (vitamins K, A, D, and E).
- **Osmotic laxatives** promote water secretion into the colon and this stimulates bowel motility. These laxatives should only be used occasionally because dependence can occur, and electrolyte imbalances may occur.
- **Stimulant laxatives** exert their effect in the large intestine by actually irritating the intestinal wall to stimulate peristalsis, or contractions in the colon. Habitual use is not recommended since it can cause more extensive damage to the intestines.

Table 1: Laxative Chart

Laxative Type	Examples	Where it Works	Time to Effect
Bulk-forming laxatives	<ul style="list-style-type: none"> - Metamucil[®] (psyllium husk) - Citrucel[®] (methylcellulose) - dietary fiber sources - flax seeds - slippery elm powder 	<ul style="list-style-type: none"> - small intestine - large intestine 	- 12-72 hours
Lubricant laxatives	<ul style="list-style-type: none"> - mineral oil - fish oil - flax oil 	<ul style="list-style-type: none"> - large intestine 	<ul style="list-style-type: none"> - 6-8 hours (oral) - 2-15 mins (rectal)
Osmotic laxatives	<ul style="list-style-type: none"> - magnesium citrate - magnesium sulfate - magnesium oxide - Phillips Milk of Magnesia[®] (magnesium hydroxide) - Fleet's Phospho Soda[®] 	<ul style="list-style-type: none"> - small intestine - large intestine 	- 3-48 hours

	(sodium phosphate) - Miralax [®] (polyethylene glycol, PEG) - glycerin suppositories - sorbitol - lactulose		
Stimulant laxatives	- Dulcolax [®] (bisacodyl) - Correctol [®] (bisacodyl) - Senna [®] (sennosides) - Sennakot [®] (sennosides) - Fleet Laxative [®] - Ex-Lax Gentle Nature [®] - cascara sagrada - turkey rhubarb	- large intestine	- 6-10 hours (oral) - 15-60 mins (rectal)

Cascara Sagrada – This herbal preparation was previously FDA-approved as a laxative, yet this designation was withdrawn in 2002 for lack of supporting evidence. Nevertheless, when taken orally, this dried bark does act as a stimulant laxative. Bacteria in the gut are required to transform the anthraglycosides within the bark into a stimulant laxative, and these compounds then stimulate peristalsis and evacuation of the large intestine. The fresh bark contains free anthrone, which can cause severe vomiting. However, if aged for at least one year, or treated with heat and aeration, the free anthrone can be destroyed. This preparation should not be used for greater than 1-2 weeks and should not be used in children.

Olive oil – Up to 30ml per day of this oil can be used for its laxative effect, and it is generally well-tolerated for this purpose.

Slippery Elm – The inner bark rind is the portion of this plant useful for GI issues, and is formulated into both tablets and powders. It promotes mucus secretion into the gut by stimulating nerve endings along the GI tract, and this aids in bowel evacuation.

Turkey Rhubarb – At low doses, this herbal preparation relieves diarrhea, however at higher doses it acts as a stimulant laxative to help relieve constipation.

Probiotics – Products such as acidophilus or lactobacillus replace/supplement gut bacteria to aid in digestion and normal bowel function.

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