

The Health Consequences of Constipation

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At the very least, intermittent constipation is inconvenient and unpleasant. At the worst, nagging constipation can contribute toward the development of suboptimal health. This article addresses occasional constipation, its causes, its health ramifications and remedies.

According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK),¹ constipation is defined as having a bowel movement fewer than three times per week. However, others, including clinicians, contend less than a daily bowel movement, or even less than a few bowel movements daily, are indicative of constipation.² Without three bowel movements per day, the body does not have the chance to rid itself of toxins and build up of stool in the intestines can result in a leaky gut.

Authorities agree that with constipation, stools are usually hard, dry and difficult to eliminate. Some people who are constipated find it uncomfortable to have a bowel movement and experience straining, bloating and the sensation of a full bowel. Essentially, people are considered to be constipated if they have two or more of the following:³

- Straining during a bowel movement more than 25 percent of the time.
- Hard stools more than 25 percent of the time.
- Incomplete evacuation more than 25 percent of the time.

Unfortunately, constipation is commonplace. In the United States, more than 4 million people have nagging episodes of constipation, accounting for 2.5 million physician visits per year. Women and adults ages 65 and older most frequently report being constipated. Constipation is also common in pregnant women, following childbirth or following surgery.¹

The use of over-the-counter (OTC) laxatives is the most common method for dealing with occasional constipation. It is estimated that about \$725 million is spent on laxative products each year in America.¹

Causes of a Sluggish Bowel

Stool will move through the colon too slowly if peristalsis is slow or sluggish, resulting in intermittent episodes of constipation. Most commonly, this is caused by a lack of adequate dietary fiber. Americans eat an average of 5 to 14 grams of fiber daily.⁴ This falls significantly short of the Food and Nutrition Board of the Institute of Medicine of the National Academy of Science's adequate intake recommendations for fiber of 38 grams/day for men and 25 grams/day for women 50 years of age and younger, and 30 grams/day for men and 21 grams/day for women over 50 years of age.⁵

Furthermore, if the colon absorbs too much water, stools can become hard and dry, which also leads to occasional constipation. This may result from inadequate intake of water and other liquids. In addition, NIDDK has identified the following as other common causes of constipation:¹

- Lack of physical activity (especially in the elderly)
- Medications
- Milk and Cheese
- Irritated, uncomfortable bowels
- Changes in life or routine such as pregnancy, aging, and travel
- Ignoring the urge to have a bowel movement
- Dehydration
- Suboptimal health, including cardiovascular health concerns
- Concerns with the colon and rectal health
- Suboptimal intestinal function

The Health Ramifications of Constipation

Some of the more well-known health ramifications of intermittent constipation include distended or engorged veins caused by straining to have a bowel movement, or tears in the skin around the anus caused when a hard stool stretches the sphincter muscle. As a result, every once in a while, rectal bleeding may occur, appearing as bright red streaks on the surface of the stool. Sometimes straining can affect the integrity of the muscles in the rectum and anus. During episodes of occasional constipation a hard stool may become packed in the intestine and rectum so tightly that the normal pushing action of the colon is not enough to expel the stool. This occurs most often in children and older adults.¹

TABLE 1. Supplements Used to Support Bowel Health

Nutraceutical(s)	Function	Source
Partially hydrolyzed guar gum	Soluble fiber. Reduces the need for other laxative remedies. Increases bowel movement frequency. Increases fecal moisture content. ³²⁻³³	EZ Fiber™ or Fiber-Rite
Psyllium husk powder	Soluble fiber. Effective in occasional constipation. ³⁴	EZ Fiber™ or Fiber-Rite
<i>Cascara sagrada</i>	Laxative herb. Stimulates peristalsis and promotes healthy bowel movements. ³⁵	EZ Cleanse™
Senna	Laxative herb. Stimulates peristalsis and promotes healthy bowel movements. ³⁶⁻³⁷	EZ Cleanse™
Magnesium	Effective laxative. Commonly used to promote healthy bowel movements. ³⁸⁻³⁹	Opti-Mag

In addition, there are concerns that may occur as a result of constipation. This includes 1) increased gut permeability, 2) increased levels of antigens and breakdown products and 3) suboptimal colon cell health.

Gut Permeability

The gut mucosa can become excessively permeable to macromolecules.⁶⁻⁷ Consequently, variable quantities of proteins and polypeptides can penetrate the normal intestinal mucosal barrier,⁸

and reach both submucosal spaces and systemic circulation in sufficient quantities to be immunologically recognized by the body.⁹⁻¹⁰ This is of significance since documentation exists showing these molecules can have unwanted and even immunologic activity.⁹

Furthermore, gut permeability has a relationship to constipation. In a clinical study,¹¹ fifty-seven people with nagging constipation were assessed for systemic immune health, fecal microflora balance and intestinal permeability. The results were that constipation was found to be associated with striking changes in:

1. Intestinal permeability (as indicated by higher ovalbumin concentrations in serum).
2. Fecal microflora balance (concentrations of Bifidobacterium and Lactobacillus were significantly lower in constipated patients; other unfriendly strains were increased).
3. Systemic immune response (e.g., increased spontaneous proliferation of lymphocytes, elevated antibody titres, diminished counts of CD72+ B cells, etc.).

Therapy with a laxative remedy resulted in a reduction in ovalbumin concentration, normalization of the fecal microflora, and more normal immunologic parameters. The authors concluded that the original undesirable changes in intestinal permeability, fecal microflora and systemic immune response were caused by constipation.¹¹

Antigens and Breakdown Products

Besides antigens produced by cell constituents, gut microflora can also produce a number of compounds. Some of these are beneficial, such as immune-stimulating substances,¹² while others may contribute negatively to health, etc.¹³⁻¹⁶ The quantity and character of the compounds produced are determined by the type, quantity and metabolic activity of the microflora.

Of course, the fermentation process of undesirable bowel microflora is given a greater opportunity to proceed if regular bowel evacuation is infrequent, as in the case of intermittent constipation. Internationally noted medical herbalist Simon Mills wrote, "A transit time double that of the primitive bowel means that there is approximately twice as much opportunity for toxic fermentation and for reabsorption."¹⁷ This is based upon the fact that our primitive ancestors had transit times of 12-18 hours, verses the 18-36 hour transit time of their modern descendants.¹⁸

Colon Health

Researchers in Washington State investigated the association of colon health with constipation in a case-control study among 424 men and women ages 30-62 years. The results were that nagging constipation during the 10 years before the reference data (2 years before assessment) was associated with substantially increased chances of suboptimal colon cell health. The authors concluded that regular bowel movements support colon cell health among middle-aged adults.¹⁹

In addition, case-control studies have found a correlation between optimal colorectal health and higher fiber intakes.²¹⁻²² although other studies have not found similar associations between measures of dietary fiber intake and colorectal health.²²⁻²³

Natural Support for Proper Bowel Movements

Fiber

Occasional constipation can be addressed by increasing intakes of dietary fibers and fiber supplements such as EZ Fiber™, which soften and add bulk to stool, speeding its passage through the colon.²⁴ Fiber sources that have been most consistently found to increase stool bulk and shorten transit time include wheat bran, fruits and vegetables.²⁵

Fluid

Sufficient fluid intake is also required to maximize the stool-softening effect of increased fiber intake.²⁶ In addition to increasing fiber intake, drinking at least 64 ounces of non-caffeinated fluid daily is usually recommended to help ease constipation.²⁷

Laxatives

Most people who are mildly constipated do not need laxatives. However, for those who have made diet and lifestyle changes and still deal with occasional constipation, laxatives may be helpful. These remedies can help retrain a sluggish bowel.

Exercise

Exercise helps occasional constipation by decreasing the time it takes food to move through the large intestine. This limits the amount of water absorbed from the stool into your body helping keep stools at the proper consistency for easier passage. In addition, aerobic exercise accelerates breathing and heart rate. This helps to stimulate peristalsis, which efficiently helps move stools out more quickly.²⁸ In fact, physical activity has been shown to increase the frequency of bowel movements in older adults who may experience episodes of constipation.²⁹

Probiotics

Supplementing with beneficial bacteria such as *Lactobacillus acidophilus* (DDS-1), *Bifidobacterium bifidum*, *Bifidobacterium longum*, *Bifidobacterium infantis* and *Bacillus coagulans* (as found in BioPRO™) may help support regularity in the bowel. Studies in adults experiencing intermittent constipation who consumed yogurt containing strains of *Bifidobacterium* and *Lactobacillus acidophilus*, experienced a significant increase in defecation frequency without any side effects.³⁰⁻³¹

Other Dietary Supplements

The nutraceuticals found in key dietary supplements (see Table 1) may also be used to help constipation.

Conclusion

While occasional constipation is commonplace, it can have unwanted health ramifications including increased gut permeability, increased levels of antigens and breakdown products, and suboptimal colon cell health. Nevertheless, healthy bowel movements can be maintained by increasing

fiber, fruit and vegetable intake, consuming adequate water and other fluids, exercising, and using key dietary supplements including EZ Fiber (or Fiber-Rite), EZ Cleanse, BioPRO and Opti-Mag.

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