



# AMERICAN PARKINSON DISEASE ASSOCIATION

[www.apdaparkinson.org](http://www.apdaparkinson.org)

## CONSTIPATION & PD

### EDUCATIONAL SUPPLEMENT 25

Mary L. Wagner, Pharm.D., Robert S. Jenco, Pharm.D., Aksh K. Sharma, Pharm.D.

#### Introduction

Constipation is a problem that affects many individuals who have Parkinson's disease (PD). In PD there is a slowing of the stomach and bowel movements. PD can cause damage to the part of the nervous system called the autonomic nervous system, which regulates the involuntary muscle movement of the intestinal tract. Damage to the autonomic nervous system causes slowed digestion and movement through the intestinal tract. A lack of physical exercise or activity, poor dietary habits, decreased fluid intake, and a number of medications can also contribute. The best treatment approach is to prevent constipation using diet and lifestyle changes.

#### Diet and Lifestyle

The safest and healthiest way to correct abnormal bowel function is to first change your diet and lifestyle. It may take some time before these changes take effect and restore regularity, so be patient. Here are some suggestions:

- Eat meals at the same time each day
- Add more fiber to your diet
- Exercise and remain as active as possible
- Drink warm liquids with breakfast
- Establish a fixed time every day for bowel movements
- Never put off the urge to move your bowels

**Exercise and Physical Activity.** PD patients can benefit in many ways from physical activity and exercise in general, and from exercises like aerobic activity,

strengthening exercises and range-of-motion stretching. Physical therapists are very helpful in showing you which exercises will be most beneficial and safe for your situation. Consult with both your doctor and physical therapist before beginning any new exercise routine.

**Dietary Habits.** It is important to eat the proper number of servings of each food group daily. A general guide is:

- 2-3 servings of meat
- 4-5 servings of fruit and vegetables
- 2-3 servings of dairy products
- 6-11 servings of whole-grain/bran bread and or cereal

Taking too much of the following foods may cause constipation:

- Dairy products (milk, buttermilk, ice

- cream, cheese, yogurt, sour cream)
- Highly processed foods (white flour, bread, crackers, pastries, pasta, white rice)
  - Fast food and junk food
  - Fried foods
  - Meats
  - Bananas
  - Food high in sugar

**Fiber Content.** Fiber is an essential component of a healthy diet and the lack thereof is the most common cause of constipation.

Some fiber sources include fresh and dried fruits, vegetables, beans, whole-wheat and whole-grain products, bran, oatmeal, and brown rice. After calculating your daily fiber intake, increase it weekly by 5 grams per day until you reach the recommended daily intake of 20 to 35 grams. High-fiber foods are listed in **Table 1**. The amount of fiber contained in other foods can be found on food labels or by website searches using the key words “Dietary Fiber.” Drinking enough water is important to prevent constipation, especially when taking fiber supplements. Six to eight 8-ounce glasses of water daily are recommended.

**Table 1: Fiber Content of Some Common Foods**

Food	Serving Size	Grams of Fiber Per Serving
Cheerios™	1 cup	3
All-Bran®	1/3 cup	8.5
Apple	1 medium	3.5
Prunes	3 Prunes	3
String beans (cooked)	1/2 cup	1.6
Broccoli (cooked)	1/2 cup	2.2
Kidney beans (cooked)	1/2 cup	7.3
Lentils (cooked)	1/2 cup	3.7
Bran muffin	1 muffin	2.5
Whole-wheat bread	1 slice	1-3
Brown rice	1/2 cup	1
Sweet Potato	1/2 medium	1.7
Dried Sunflower Seeds	1 cup	4

## Helpful Foods

Certain foods may be helpful in relieving constipation. A natural recipe involves combining 2 parts of unprocessed wheat bran, 1 part applesauce, 1 part prune juice (for example 1 cup, ½ cup, and ½ cup respectively) and refrigerating the mixture. Make a new mixture every week. You can take 1-2 tablespoons daily for one week. If needed, you can increase by 1 tablespoon a week. Stool frequency and gas may increase the first few weeks but will usually adjust after one month

of using this mixture.

Yogurt that is fortified with probiotics may improve constipation as well. Probiotics are live microorganisms that provide a health benefit to the host when given in adequate amounts. Probiotics used in constipation include bacteria such as *Bifidobacterium*, *Lactobacillus*, *Streptococcus*, and combinations thereof. Although there are not many rigorous studies to support the claim that probiotics help relieve constipation, preliminary studies do

show benefit with minimal risk. The studies that are available seem to suggest that probiotics help constipation when taken at daily doses of at least a billion colony forming units (CFU) for at least two weeks. When looking at marketed probiotic products, it is important to consider the bacterial strains and potency in order to get the greatest benefit.

## Medication

Certain medications can cause constipation. The best way to know if a medication is the cause of your constipation is if the symptoms start when you start the new medication.

**Table 2** lists examples of medications that can cause or worsen constipation. Do not stop these medications, but ask your doctor if they could be the cause of your constipation.

## Medication Management

- **Over the Counter (OTC) Medications.** If after two weeks of dietary/lifestyle changes

there is no improvement in regularity, bulk forming laxatives may be used. It is important to continue your healthy eating habits while taking these laxatives. Stool softeners may also be added if the bulk forming laxatives do not provide relief soon enough, and to help relieve straining during bowel movements. Both items are generally safe when used as directed. Stimulant laxatives and hyperosmotic laxatives may not always be safe and SHOULD NOT be used without the advice of a doctor or pharmacist. If you take other medications, separate the laxatives by two hours from the time you take your other medications. If, after dietary/lifestyle changes and using a laxative fails, a more serious underlying condition may be responsible for the constipation.

Various medications used to treat constipation, and how they work, are listed in **Table 3**. There are many other available products not listed here. If you have questions about ingredients or if the product is safe to use, ask your doctor or pharmacist.

**Table 2: Medications That Can Cause or Worsen Constipation**

Medications Class	Examples - Generic Name (Brand)
PD medications	trihexyphenidyl (Artane®)
	benztropine (Cogentin®)
Narcotic pain medications	oxycodone (Percocet®, Percodan®, Oxycontin®)
	hydrocodone (Lortab®, Vicodin®, Vicoprofen®, many prescription-only cough syrups)
	hydromorphone (Dilaudid®)
	propoxyphene (Darvocet®, Darvon®)
	fentanyl (Actiq®, Duragesic®, Fentora®)
	meperidine (Demerol®)
	codeine
	morphine
Antacids	aluminum-containing products
	bismuth-containing products (Pepto-Bismol®)
	calcium-containing products (Rolaids®, Tums®)
Calcium supplements	Os-Cal®, Caltrate®, Citracal®, Viactiv®
	generics/store-brands, prescription calcium products

Antihistamines (used for sleep aid, allergies, and motion sickness)	diphenhydramine (Benadryl®) meclizine (Dramamine®) chlorpheniramine (Chlor-Trimeton®)
Antidepressants	amitriptyline (Elavil®)
	desipramine (Norpramin®)
	nortriptyline (Pamelor®)
Antipsychotics	haloperidol (Haldol®)
	clozapine (Clozaril®)
	risperidone (Risperdal®)
Cholesterol medications	cholestyramine (Prevalite®, Questran®)
High blood pressure medications	verapamil (CalanVerelan®)
	diltiazem (Cardizem®, Cartia XT®)
	clonidine (Catapres®)
	methyldopa
Seizure/epilepsy medications	phenytoin (Dilantin®)
	valproic acid (Depakote®)
Iron supplements	Feosol®, Slow-Fe®
	generics/store-brands, prescription iron products

- Bulk-forming Laxatives.** Bulk-forming laxatives or fiber supplements are the safest and most naturally-acting type of laxative provided they are taken as directed. These fiber laxatives absorb liquid in the intestines to soften the stool. The bowel is then stimulated naturally by the bulky mass. These products are not habit-forming and can be used daily to help prevent and treat constipation. Not drinking enough water can result in an obstruction of the gastrointestinal tract. Make sure to take these with an 8-ounce glass of water. Increasing fiber intake too quickly may result in gas, bloating, and upset stomach. These products usually take between 12 to 72 hours to work. A doctor should be consulted if the use of these products does not resolve constipation after two weeks. These bulk fibers may affect how well other medications work, so whenever possible, take at least two hours before taking any other medications.

- Stool Softeners.** Stool softeners, also called emollients, are oral products containing the ingredient docusate and are generally only

useful in preventing constipation. They work by allowing liquids to mix with the stool. Stool softeners do not cause a bowel movement, but help to allow one without straining. They are not habit forming and usually work in one to two days, but can take up to five days. If constipation is not resolved after one week, do not continue to use a stool softener without consulting your doctor. If you take other medications, separate the time you use a stool softener from your other medications by two hours, as stool softeners may affect the absorption of some medications.

- Stimulant Laxatives.** Use stimulant laxatives only with your doctor's advice. These oral tablets or capsules contain senna, bisacodyl, casanthranol, cascara, sagrada, castor oil, aloe or dehydrocholic acid. Casanthranol, cascara sagrada and aloe are not FDA-approved. Stimulant laxatives increase muscle contraction in the intestinal wall and usually take about 6 to 12 hours to work. They are habit-forming and long-term use can even harm the bowel.

- Saline Laxatives.** Saline laxatives contain magnesium hydroxide, magnesium citrate, magnesium sulfate, and sodium phosphate. One way they act is by drawing water into the intestine and bowel from other body tissues, causing a watery bowel movement usually within six to eight hours. They should be used only by a doctor's direction because they may be harmful to people with certain heart or kidney problems. They are used for rapid emptying of the bowel and are NOT to be used long term. They are available as oral preparations or enemas.

- Hyperosmotic Laxatives.** Glycerin is the primary example of a hyperosmotic laxative. It is available in suppositories, and usually produces a bowel movement within 30 to

60 minutes. Like saline laxatives, they act by drawing water into the bowel causing a movement. These medications are relatively safe when used under a doctor's direction.

- Combination Products.** There are a number of OTC products available that contain various combinations of different types of laxatives, and should be taken only when directed by your doctor.

- Supplements.** Although research is very minimal, anecdotal reports suggest that probiotics, senna tea, chia seeds, and cod liver oil may be helpful in treating constipation. These are all considered supplements, and it is important to remember that they are not regulated products by the FDA.

**Table 3: Over the Counter Medications used to Treat Constipation**

Medications Class	Examples- Generic Name (Brand)
Bulk forming laxatives	psyllium (Metamucil®, Fiberall®, Konsyl®)
	inulin (Fibersure®, Fiber Choice®)
	polycarbophil (Fibercorn®, Fiber-Lax®)
	methylcellulose (Citrucel®)
	microcrystalline cellulose & guar gum (Benefiber®)
Stool softeners	docusate (Colace®, Correctole®)
Stimulant Laxatives	bisacodyl (Dulcolax®, Correctol Fleet®, Magic Bullet®)
	castor oil (Castor oil, USP)
	senna (Ex-LaxSenokot®, Black Draught®)
Saline Laxatives	magnesium citrate (Citromax®)
	sodium phosphate (Fleet Phospho-SodaFleet ready-to-use Enema®)
	magnesium hydroxide ( Milk of Magnesia products, Maalox®, Mylanta®)
	magnesium sulfate (Epsom salts)
Hyperosmotic	glycerin suppositories
	polyethylene glycol (Miralax®)
Lubricant laxative	liquid petrolatum (Mineral oil, USP, Fleet ready-to-use Mineral oil Enema®)
Miscellaneous	cod liver oil, senna tea

Combination products	
Stimulants plus stool softeners	senna + docusate (peri-Colace, Senokot S®)
Hyperosmotic laxative plus lubricant	magnesium hydroxide + mineral oil (Phillip's MO Suspension®)

## Prescription Medication

If other products fail, discuss with your doctor or pharmacist about a prescription medication that may be available to treat chronic constipation in people with Parkinson's.

## Conclusion

Always make certain all of your doctors and your pharmacist are aware of all the medications (OTC and prescription), vitamins, supplements, and herbal products you are taking so they can check for drug interactions

or side effects. Whenever adding a new OTC or prescription product to your medication regimen, ask about potential drug interactions and side effects that you should look for. Finally, when purchasing OTC products, always check the ingredients. Many brands make products with similar names that may contain different combinations of drugs. If you are not certain, ask your pharmacist. Contact your doctor if you encounter new symptoms (i.e. blood in the stool, unusual abdominal pain, and unexplained weight loss), as you may have an underlying condition causing constipation.

The information contained in this supplement is solely for the information of the reader. It should not be used for treatment purposes, but rather for discussion with the patient's own doctor.

Mary L. Wagner, Pharm.D., Robert S. Jenco, Pharm.D., Aksh K. Sharma, Pharm.D.  
Ernest Mario School of Pharmacy, Rutgers University, New Brunswick, N.J.



American Parkinson Disease Association

Copyright 2010, APDA, Inc.  
Reprinted February 2013

For additional free copies of this article, please write or call the

## AMERICAN PARKINSON DISEASE ASSOCIATION, INC.

Parkinson Plaza - 135 Parkinson Avenue - Staten Island, NY 10305-1425  
(718) 981-8001 - (800) 223-2732 - Fax: (718) 981-4399 - E-Mail: apda@apdaparkinson.org