

is easily obtained each day by one of the following:

- Food bran—This is available as wheat, oat or rice bran. Processing of wheat and other grains removes this valuable fibrous part of the food so these processed products should be avoided.

- Psyllium bran—The psyllium plant is remarkable because its ground seeds can retain so much water. This product is available as Metamucil, Konsyl, Effersyllium, Per Diem Fiber, or the less expensive generic preparation in drug and health food stores. Although labeled a laxative, it really is not a laxative.

- Methylcellulose—This is another fiber derived from wood which also retains water. It is available as Citrucel.

### Do Laxatives Help?

There are two main types of laxatives: stimulants (chemical) and saline (liquid or salt). They occasionally help temporary constipation problems. However, chronic use of laxatives is discouraged because the bowel becomes dependent upon them. Bowel regularity should occur without laxatives. An occasional enema is preferable over the chronic use of laxatives.

### Surgery

With certain medical conditions, such as severe diverticulosis, and with extreme constipation in some younger patients, surgery may provide relief.

### Bowel Retraining Program

1. Do not use laxatives.
2. Eat a diet high in roughage, such as bran cereals and leafy vegetables.
3. Drink six (6) ounces of prune or apricot juice each morning.
4. Eat two (2) large servings of stewed fruit each day.



5. Take one (1) heaping tablespoon of a psyllium-based bulking agent twice a day. Use the NutraSweet® product to avoid excessive calories.
6. Eat a normal breakfast.
7. Set aside 15 minutes after breakfast to sit on the toilet, but do not strain to have a bowel movement.
8. If you do not have a bowel movement by the third day, use an enema and repeat the above steps.

### Summary

Constipation usually is a short-term disorder which is easily treated by simple measures. However, the condition may reflect a serious underlying disorder that can only be detected and treated by the physician. For chronic constipation, it is important that the patient understands how this occurs. By the intake of proper foods and fiber supplements, it is usually possible to retrain the colon so that normal regularity occurs.

This material does not cover all information and is not intended as a substitute for professional medical care.

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Camp Hill, PA 17011  
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# CONSTIPATION

Jeffery J. Dorociak, MD, PhD  
Michael A. Sagatelian, MD  
James W. Schnell, MD  
Aaron B. Domm, MD  
2073 Charlie Hall Blvd.  
Charleston, SC 29414  
(843) 571-0643, Fax: 571-0311



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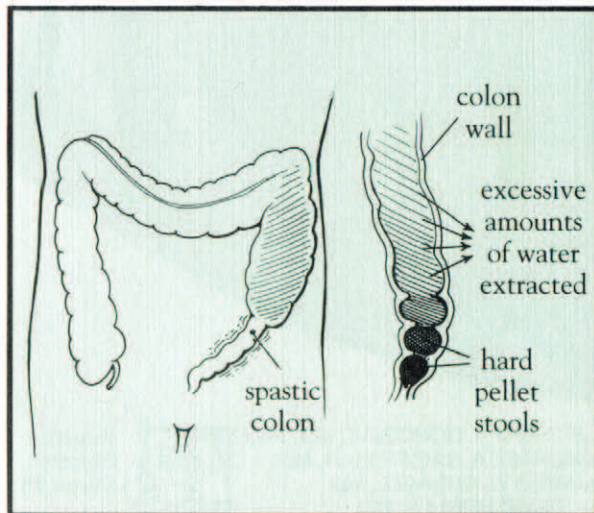
## Constipation

Constipation can be defined as infrequent or hard pellet stools, or difficulty in evacuating stool. Passing one or more soft, bulky stools every day is a desirable goal. While troublesome, constipation is not usually a serious disorder. However, there may be other underlying problems causing constipation and, therefore, testing is often recommended.

### What Causes Constipation?

The stomach churns and mixes food so it can be digested. The near-liquid food then enters the small intestine which extracts calories, minerals and vitamins. The small intestine ends in the right-lower abdomen where it enters the colon. The colon, or large bowel, is 5 to 6 feet long. Its function is to withdraw water from the liquid stool, so that by the time it reaches the rectum there is a soft formed stool. If an excessive amount of water is extracted, the stool can become hard and difficult to expel.

Constipation is often caused by a lazy colon that does not contract properly and fails to move the stool to the rectum. The colon also can become spastic and remain contracted for a prolonged time. In this case, stool cannot move along. Too much water is absorbed and hard



pellet-like stool develops. Constipation also can result from a mechanical obstruction, such as tumors or advanced diverticulosis, a disorder which can distort and narrow the lower-left colon. Other conditions that can produce a sluggish, poorly contracting bowel include: pregnancy, anal fissures and hemorrhoids, certain drugs, thyroid hormone deficiency, the abuse of laxatives, travel, and stress.

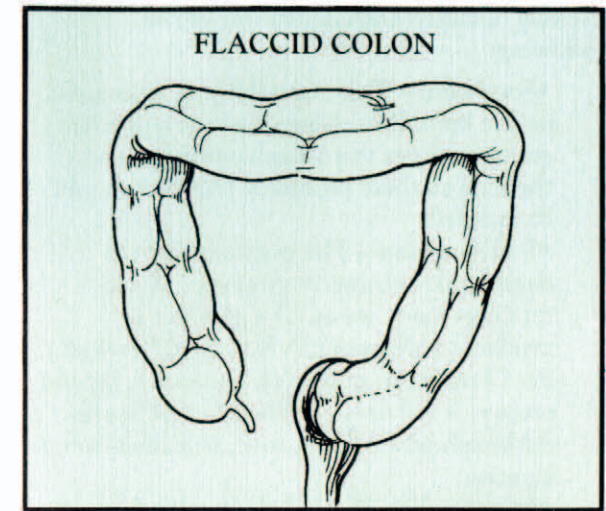
### Diagnosis

The patient's medical history is the most important factor in diagnosing constipation. The physician will perform a physical exam and obtain certain blood tests. A barium x-ray exam of the lower bowel or colon often is warranted. In addition, a sigmoidoscopic exam (using a lighted, flexible endoscope) is necessary to rule out a mechanical blockage of the lower bowel, such as a tumor. This exam allows the physician to view the bowel wall and obtain biopsies (tissue samples) of any suspicious areas. Colonoscopy may be indicated. This is the visual exam of the inside of the entire colon using a flexible fiberoptic colonoscope. The exam is usually performed under mild sedation. A marker test may be done whereby the patient swallows a capsule containing markers. Some days later an x-ray is taken to analyze the pattern and distribution of markers in the colon. In some cases, pressure measurements of the rectum and lower colon can provide valuable information. This exam is called manometry.

### Treatment

Because there are many causes of constipation, treatment depends on the physician's findings and diagnosis. After serious problems are excluded, chronic constipation usually responds to simple measures, such as adding fiber, bran or a bulking agent to the diet.

General guidelines for treating constipation include: eating regularly, drinking plenty of liquids each day, regular walking and performing aerobic exercise. In particular, patients should respond to the urge to defecate. Retaining stool at this point will aggravate the condition.



**Diet**—Foods that are high in roughage, bran and fiber are essential in correcting and preventing constipation. In parts of the world where unprocessed grain is used and where large amounts of fiber are consumed, there is little constipation, and passing one or two large, soft stools a day is normal. The following foods should be eaten daily in adequate amounts:

- Whole grain breads (whole wheat)
- Bran cereals
- Vegetables—Root (potatoes, carrots, turnips), leafy green (lettuce, celery, spinach), or cooked high residue (cabbage)
- Fruit—Cooked or stewed (prunes, applesauce) or fresh fruit (skin and pulp)

**Bulking Agents**—Fiber is the undigested part of plant food that passes into the colon. Certain types of fiber can absorb and hold large amounts of water. This, in turn, results in a larger, bulkier stool which is soft and easier to pass. Adequate fiber in food or from supplements is recommended daily. This type of water-retaining fiber generally