

COMPREHENSIVE OVERVIEW OF CONSTIPATION

William E. Whitehead, PhD

Center Co-Director

WHAT CAUSES CONSTIPATION?

Constipation can refer to either very slow movement of food residues through the colon (slow transit constipation) or difficulty passing bowel movements after they reach the rectum (outlet dysfunction). The specific symptoms of constipation are listed below. Doctors often diagnose constipation if patients have at least two of these symptoms more than a fourth of the time:

- Straining
- Hard or lumpy stools
- Feeling that there is a blockage in the rectum that prevents bowel movements from passing
- Having to press around the anal opening
- Less than three bowel movements per week

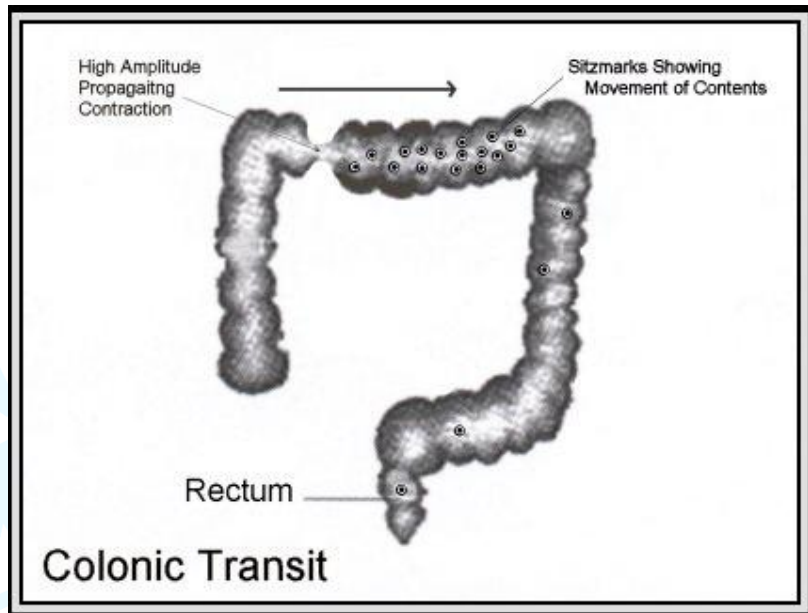
The large intestine is a tube-shaped muscle, and short segments of this muscle can squeeze together (contract) to close off the inside. Most of the contractions are not coordinated with each other; they just move food residues back and forth so water can be absorbed. However, about 6 times per day, strong contractions begin in the right side of the large intestine and move progressively downstream pushing food residues towards the rectum; this is called a High Amplitude Propagating Contraction. If these strong contractions fail to occur, food residues can't move downstream and slow transit constipation results.

WHO HAS CONSTIPATION?

From 3% to 10% of people in surveys say they are constipated, and a higher number, about 30%, report that they take laxatives at least once a month. More women than men say they have constipation, and more African Americans than Caucasians. As people grow older, they report more constipation. However, in most large surveys, older people have as many bowel movements as younger people. This suggests that as people age, they have more trouble passing a bowel movement (need to strain more), but the frequency of bowel movements does not change. Many of the drugs people take for pain, high blood pressure, or depression cause constipation. Talk with your doctor about your medications; he or she may be able to change the drugs you take for these health problems to ones that are less constipating. Because constipation is a very common problem, and it is not life-threatening, most doctors will start treatment without doing tests. It is only when the treatment is not successful that patients need to be tested to identify exactly what causes it.

TESTING FOR CONSTIPATION:

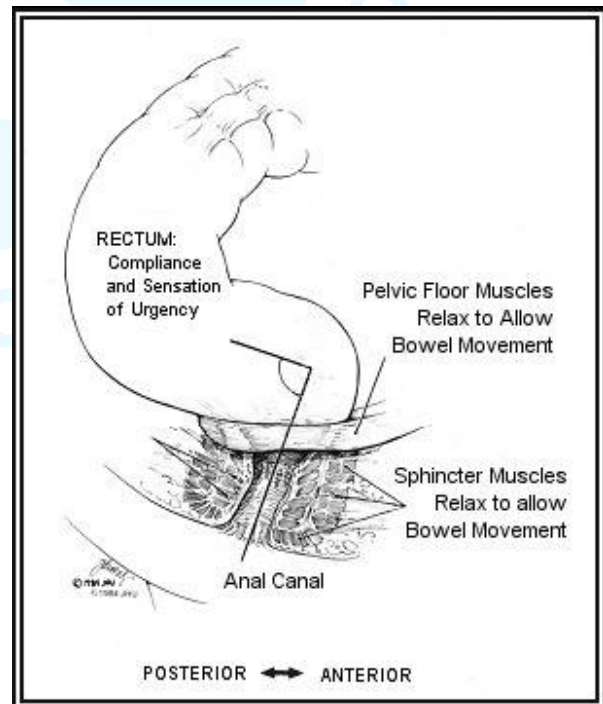
- **Sitzmark test** is the most helpful test to find the cause of constipation. This test measures how long it takes food residues to travel through the gut. This is done by having you swallow tiny soft rubber rings in a capsule about 1/2 inch across and then taking an x-ray 5 days later to see how many of the rings are left. In some clinics the rubber rings are given for 3-5 days instead of just once.
- **Anorectal Manometry** is a test used to measure the pressure in the anal canal when you strain to have a bowel movement to see if your sphincter muscles relax as they should.
- **Pelvic Floor Electromyographic**
- [EMG] stands for activity. This is used to test the failure of the sphincter muscles to relax (outlet dysfunction) Small sensors are used to record the electrical potentials your sphincter muscles generate when they squeeze.
- **Balloon Defecation** is a test in which a small tube with a balloon on the tip is inserted into your rectum, filled with water or air, to see if you can pass it like a bowel movement
- **Evacuation Defecography** is an alternative test used to inject a thick paste made from barium and Metamucil into your rectum (this behaves like a soft bowel movement) and uses an x-ray to see how well you can pass it out.



HOW IS CONSTIPATION TREATED?

Laxatives are used when food residues move slowly through the large intestine. There are several types:

- Fiber supplements or high fiber foods, combined with drinking more liquids, may cause you to have larger and softer stools. This can eliminate mild constipation.





- Stimulant laxatives usually contain senna or cascara (laxatives that occur naturally in some plants) or bisacodyl (the ingredient in Dulcolax).
- These are effective laxatives if used occasionally, but they may stop working if they are used every day.
- Osmotic laxatives stimulate the small intestine to secrete more water to make bowel movement softer. Examples are milk of magnesia, magnesium citrate, lactose, and sorbitol.
- Polyethylene glycol (the ingredient in Miralax) is a liquid which your body can't absorb, so it flushes food residues out of the intestines.

WHAT ABOUT DIET AND EXERCISE?

A diet high in fiber can reduce constipation by making your bowel movements larger and softer. Breakfast cereals are often fortified with extra fiber. Prunes are a natural laxative. Drinking plenty of water may also help. Foods that can make constipation worse include cheese and bananas. Surveys show that people who exercise most days, even with mild exercise such as walking, have less constipation.

Surgery. When slow transit constipation is very severe, your doctor may recommend removing your large intestine and connecting your small intestine to your rectum. However, this surgery often has sideeffects including fecal incontinence; it is used only as a last resort.

Biofeedback is a method for teaching people how to properly relax the sphincter muscles when they are straining to have a bowel movement.

Muscle relaxing drugs are drugs that relax the sphincter muscles as well as other muscles of the body.

Research Study at UNC

UNC has a grant from the National Institute of Health to test different methods of treating constipation that is related to difficulty passing bowel movements. Patients who qualify will receive one of three experimental treatments, which are free and which last for three months.

How to make an appointment at UNC

The UNC Center for Functional GI and Motility Disorders accepts referrals from doctors or patients to test for the causes of constipation and to make treatment recommendations. You can schedule an appointment by contacting (910) 966-5563.

To enroll in our research study, you or your doctor should telephone Mr. Steve Heymen at (910) 966 2515.