

## Bowel Management Guide

Cancer and its treatment may change the way your bowel works. For example, you may have an upset stomach, gas, constipation or diarrhea. These changes can affect how you feel and how you go about your daily activities.

If you have bowel problems, this guide can help. It explains how your bowel works and what to do to feel more comfortable.

### Digestion and the Gastrointestinal (GI) Tract

The organs in the body that digest food are a part of the digestive system, which is also called the gastrointestinal (GI) tract. See Figure 1.

#### Mouth

Digestion begins with all parts of the mouth working together: the teeth, tongue, lips and jaws. Chewing and saliva break down the foods we eat into smaller pieces.

#### Esophagus

The esophagus, a 10-inch muscular tube, carries food from the mouth to the stomach.

#### Stomach

The walls of the stomach are made of muscles that churn and break down food into small particles.

#### Small Intestine or Small Bowel

From the stomach, food enters the small intestine. This 21-foot tube breaks down food and absorbs nutrients into the bloodstream. The contents of the small intestine are liquid.

#### Large Intestine or Colon

The large intestine, also called the colon, is a 4-foot tube where water is absorbed into the body for use. Body waste, called stool, forms here. The longer stool stays in the colon, the more water the stool loses and the harder it becomes.

#### Rectum

The rectum, a 5-inch muscular tube, is at the end of the colon. Stool is stored here until a bowel movement occurs.

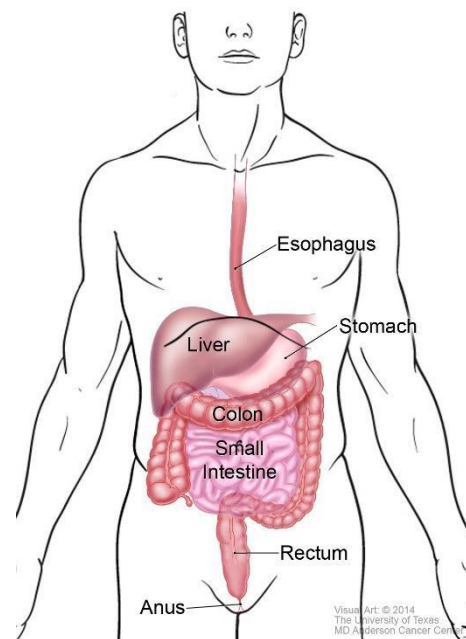


Figure 1  
Organs in the gastrointestinal (GI) tract  
©MD Anderson Cancer Center

When about ½ cup of stool enters the rectum, you feel an urge to have a bowel movement. If you cannot get to a bathroom right away, a reflex occurs. The urge to have a bowel movement stops until more stool enters the rectum. If your rectum has been removed, you do not have the holding area and the reflex.

## **Anus**

Stool leaves the body through an opening called the anus. This 1-inch tube helps you control bowel movements. Muscles in the anus called anal sphincter muscles help hold stool in the rectum until you are ready to have a bowel movement.

Stool is usually medium brown, soft and formed.

## **Healthy Bowel Function: Finding a Balance**

### **Why is it important to have bowel movements regularly?**

It is important to have bowel movements regularly so that the body can get rid waste from food and fluids. New food and fluids will then be able to move through the GI tract and supply the body with nutrients.

Everyone has a different schedule for what is regular. Depending on how much you eat, the frequency of bowel movements usually ranges from 3 a day to 3 a week. Bowel movements usually happen after a big meal when a massive push down of contents in the GI tract makes room for incoming food.

To have regular, healthy bowels, you need to understand how food, fluid, fiber and medicines can work together. You may need to add or take away medicines or change what you eat or drink to achieve a balance. This is called titration.



It is important to have regular bowel movements while you are on chemotherapy. Hard, dry stools can cause bleeding if your blood counts drop below normal. **Do not** use enemas and suppositories if your platelets are below 50,000.

## **Food**

Although foods affect people differently, some foods cause common problems. For most people, spicy or fried foods cause stomach contents to move faster through the GI tract.

Big meals usually cause wave-like motions in the GI tract, called peristalsis. These movements help bring on a bowel movement. Certain foods increase the action, such as prune juice, orange juice and pineapple and other fruits. Each person reacts differently, so be familiar with how foods affect you. It is helpful to keep a diary of the foods that you eat and the number of stools you have each day. Look for trends or patterns, and stop eating foods that cause problems for you.

## **Fluid**

Most people require about 2 quarts (or 64 ounces) of fluid per day. Fluid includes liquids or anything that breaks down into liquid, like ice cream and Jell-O®. Several factors can affect the

amount of fluid in the body. These are:

- Anything that makes you sweat, such as being in hot weather or having a high fever, removes water from the colon. This lowers the amount of fluid needed to keep stool soft. If this happens, you may need more than 2 quarts of fluid per day.
- Diuretics, also called water pills, can cause you to urinate more often. These decrease the normal amount of fluid in the colon.

For some people, drinking a hot liquid helps to bring on a bowel movement. Cold liquids do not seem to have the same effect.

Your doctor may ask you to measure the amount of liquids you take in and the amount you urinate. If so, ask your nurse for a “hat” to place in the toilet to collect urine at home. Your nurse will give you instructions.

If there is a large difference between the amounts you drink and urinate, contact your doctor or nurse.

## Fiber

Just as bran absorbs milk in a bowl of cereal, fiber absorbs fluid in the GI tract. Fiber holds the fluid and stops fluid from leaving the colon. This allows the stool to remain soft and helps move stool through the colon.

You need about 25-40 grams of fiber per day, unless you are receiving cancer treatment that limits how much fiber you eat. If you need to eat more fiber, do so slowly. **Gradually** eat more fiber because sudden, extra fiber in the GI tract may cause bloating, cramping and diarrhea.

The two types of fiber needed daily are soluble fiber and bulk-forming fiber. Eating foods from all food groups will provide a balance of these fibers in your diet.

**Soluble Fiber** – This type feeds the normal bacteria in the colon and helps move food and stool down the GI tract. The inside of an apple and other fruits and vegetables are examples of soluble fiber. Medicinal soluble fiber dissolves in water. Benefiber® and Fiber Choice® are brand names.

**Bulk-Forming Fiber** – This type treats constipation or diarrhea, by either speeding up or slowing the movement in the GI tract. It is important to take **medicinal bulk-forming fiber every day** because the amount of fiber in your diet changes day to day. Metamucil® and Citrucel® are brand names. See Figure 2. Psyllium is the generic name for Metamucil, and methylcellulose is the generic name for Citrucel.

The amount of water taken with the fiber will either speed up or slow down how fast food moves through the GI tract.



Figure 2  
Brands of bulk-forming fiber  
©MD Anderson Cancer Center

## **Fiber Pills**

If you need medicinal fiber to either speed up or slow down your system, pills may not provide the outcome you need. For example, by the time fiber capsules break down in the GI tract, the fiber may have lost some of the water you took in at the time you swallowed the pills. This may affect your GI tract in the opposite way you desired. Two Metamucil wafers are an acceptable substitute for 3.4 grams of powdered fiber and are convenient when you eat out or when you're away from home.

For more information, ask your nurse for a copy of "Bowel Management Using Medicinal Bulk-Forming Fiber."

## **Medicines**

Medicines can affect your bowels in several ways. Some cause constipation, while some cause diarrhea, and others have no effect. Always read the label on over-the-counter medicines and understand what you need to take and why. If you need more information, ask the pharmacist.

Ask your nurse or doctor if the medicines you take for your cancer treatment will cause side effects in your bowels. When you know the cause of bowel problems, your medical team will know how to treat it.

## **What is bowel management?**

Everyone needs bowel management. It is a method to manage your bowels. Begin by setting a goal for how often you need to have a bowel movement. Everyone is different, but a general guideline is:

- If you eat 3 meals a day, expect a bowel movement every day.
- If you eat half your normal amount of food, expect a bowel movement every other day.
- If you eat one-third of the amount, expect a bowel movement every third day.

Follow a bowel management program based on your symptoms and history. Your nurse can help with this.

## **Regular Bowel Movements**

Follow the instructions and tips below to have regular bowel movements:

- Drink at least 2 quarts (or 64 ounces) of fluid per day. Half of the fluids you take in each day should be non-caffeinated.
- Take medicine as directed. Follow your health care provider's advice on how to prevent constipation when taking certain medicine.
- Include foods in your diet that help you have a bowel movement, such as prunes, prune juice or high-fiber cereal.
- Daily physical activity helps keep the GI tract moving. Talk with your doctor about how much physical activity is best for you.
- Go to the bathroom right away when you feel the urge to have a bowel movement. Don't wait.
- Timing of bowel movements is important. Try to have a bowel movement after the same

meal every day. Drinking a hot liquid after that meal can help bring on a bowel movement by increasing the “push down” effect on stool in your GI tract.

## What is constipation?

Constipation is the infrequent or difficult passing of hard, dry stool. You may have constipation if you are:

- Not drinking enough fluid
- Not eating enough fiber, if you are allowed fiber during your cancer treatment. Fiber helps soften stool by holding fluid in the colon.
- Not eating enough food
- Not getting enough exercise – Being active increases the circulation and wave-like movement in the GI tract. These movements decrease when a person remains at rest.
- Taking constipating medicines (see next section below)

You should have a bowel movement at least every third day.



Report the following symptoms immediately to your doctor or nurse.

- No bowel movement or passage of gas for more than 3-5 days
- Abdominal pain, cramping, fever and/or nausea and vomiting

## Medicines That Can Cause Constipation

Some medicines can affect the GI tract by slowing down the movement of stool in the colon and removing more water than normal from the colon. Medicines that may cause constipation include:

- Opioid pain medicines – These slow down the movement of stool through the GI tract and will harden stool.
- Anti-nausea drugs, such as ondansetron (Zofran®)
- Some antidepressants
- Antihistamines
- Calcium channel blockers
- Diuretics – These are also called water pills and can cause fluid to go through the kidneys rather than remain in the GI tract.
- Iron supplements – These make some people constipated.
- Muscle relaxants
- Parkinson’s disease medicines
- Calcium-based antacids – These make some people constipated. Magnesium-based products may cause loose stools. Read the ingredient label on the antacid to determine if it contains calcium, magnesium or both. If the product is a combination of both, it will not affect bowel elimination.

## Managing Constipation

If you are constipated, your stool can become hard. This may cause bleeding. **Do not use** enemas and suppositories if your blood counts are low while you are on chemotherapy. Follow the instructions below.

1. **Before taking opioid pain medicine or constipating chemo**, it is a good idea to clean out your colon by taking laxatives of your choice. If you have not had a bowel movement for 5 or more days, ask your nurse for advice on how to pass a large amount of stool. If pain medicine makes you constipated, your health care team may prescribe a milk-and-molasses enema (if your blood counts are normal).
2. **When beginning treatment**, prevent constipation by taking stimulant laxatives and stool softeners daily. See Figure 3. For example, senna (a stimulant laxative), helps move stool down in the colon and docusate sodium (a stool softener) helps soften the stool. A brand name of combination stimulant laxative and stool softener is Senokot-S<sup>®</sup>. The 'S' is the stool softener of these products. Generic names are Senna-S and Senna Plus.

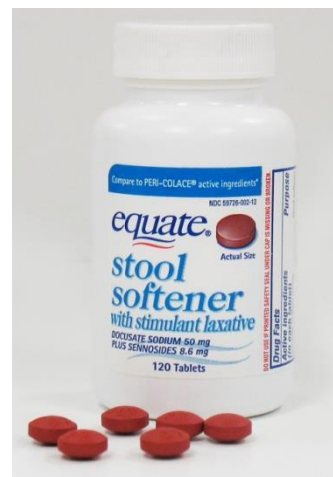


Figure 3  
Example of combination stool softener and stimulant laxative  
©MD Anderson Cancer Center

You may safely take up to 8 Senokot-S pills or generic equivalent per day. Start at the dose advised by your nurse. Gradually increase or decrease to maintain soft-formed stools on a regular basis. Do not take more than 500 milligrams (mg) of docusate sodium (stool softener) per day.

Buy stool softeners, stimulant laxatives and combination products without a prescription at drug and grocery stores. Store-brand stimulant laxative/stool softeners work as well as brand names and cost less. If you need the liquid form of these medicines, ask your doctor for a prescription.

Another recommended laxative is polyethylene glycol 3350, brand name Miralax<sup>®</sup>. Miralax is an over-the-counter osmotic laxative that draws water into the bowel. This softens stool and increases the number of times you pass stool per day. Dissolve 17 grams (1 capful from bottle top) with 4-8 ounces of the fluid of your choice. Drink this once per day. Miralax is generally well tolerated and will not cause harsh side effects such as gas, bloating or cramping. Many drug and grocery stores carry their own version of this product and can be less expensive than the brand name.

3. If the doctor increases your pain medicine, gradually increase your intake of stool softener and stimulant laxative to keep your stool soft and formed. Keep your stool soft so it is easy to pass.

Emptying the colon on a regular schedule will keep stool soft and prevent constipation. Be aware of how much food you eat compared to the amount of stool you have. More food should equal

more stool, while less food should equal less stool.

For example, if you eat about the same amount each day, your stool should be about the same length each day. If you notice that your stool is much shorter, but your diet has not changed, then your body might be storing stool. This means that you might be constipated.



Contact your nurse if you feel that your colon is full of stool, or you are taking constipating medicine, and you have not had a bowel movement for 3 or more days. Your nurse will guide you on what to do.

### **Treating Constipation With Fiber**

When you need to treat constipation to speed up the movement in the GI system, you have two choices.

1. Eat high-fiber cereal. For example, 1 cup of General Mills Fiber One® (noodle type) cereal contains 28 grams of fiber. Adding fruit to 1 cup of cereal will meet or nearly meet your daily requirement of fiber.

Along with high-fiber foods, it is important to drink a minimum of 2 quarts (64 ounces) of fluid per day. The fiber and fluid work together to move stool through the GI tract and relieve constipation.

2. Take fiber as a medicine to soften stool and help move it through the GI tract. For example, mix 6.8 grams of psyllium (Metamucil®) or methylcellulose (Citrucel®) in 8 ounces of water and drink. Next, immediately drink 8 more ounces of water. Do this 1-2 times per day. Read the label on the fiber to determine the gram dosage. Also eat high-fiber foods. Since your diet varies day to day, taking medicinal fiber is a way to ensure a regular amount of fiber in the body every day.

Remember, **do not take** medicinal fiber if you:

- Cannot drink large amounts of fluids
- Have a history of bowel obstructions
- Are taking chemotherapy that affects the GI tract

### **Increase the Amount of Fluid in Your Stool**

If you are constipated, you may drink as much liquid with meals as you like. Follow these tips:

- If you have a fever, take medicine to reduce fevers, such as Tylenol®.
- If needed, take in more than 2 quarts of fluid a day.
- Use stool softeners to hold fluid in the stool.

## **What is an impaction?**

An impaction is a case of severe constipation. You may have an impaction if you:

- Eat very little
- Take opioid pain medicine or other constipating medicine without taking a stimulant laxative and stool softener
- Do not drink enough fluids and/or eat enough fiber

- Do not get enough exercise

There are two types of impaction.

### Low Impaction

A low impaction occurs down in the lower end of the colon near the rectum. See Figure 4.

#### Symptoms

Symptoms of a low impaction are:

- No bowel movement for 5 or more days
- Not being able to pass stool that you feel in the rectum
- Not being able to sit comfortably, because it feels like you are sitting on something
- Pain in the belly
- Passing liquid stool that is seeping around formed stool

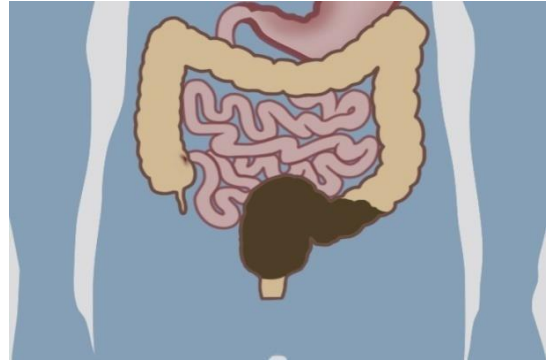


Figure 4  
Low Impaction  
©MD Anderson Cancer Center

#### Treatment

To treat a low impaction:

- **Do not** drink hot liquids or eat a big meal. This will increase the wave-like movement in the colon and cause discomfort.
- Lie down.
- Call a member of your health care team.
- Have a trained person manually break up the impaction, and follow this by an enema.

### High Impaction

A high impaction occurs up high in the colon. See Figure 5. This can happen when stool collects in the transverse and ascending colon, which is in the upper part of the colon. You may have a high impaction if:

- You do not eat 3 good-size meals a day
- You do not drink enough fluids
- The body is not naturally moving the food down the GI tract with wave-like motions

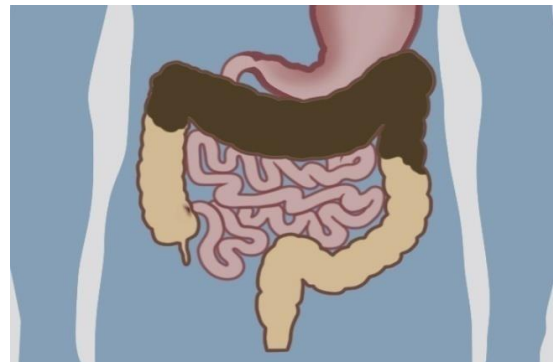


Figure 5  
High Impaction  
©MD Anderson Cancer Center

#### Symptoms

Symptoms of a high impaction are:

- No bowel movement for 5 or more days, which can cause nausea and vomiting
- Eating very little
- Pain in the belly and/or the belly becoming swollen and possibly hard
- Passing liquid stool that is seeping around formed stool

If you think you have an impaction, contact your nurse or doctor.



## Treatment

To treat a high impaction, your doctor may recommend an enema to cause a bowel movement. An enema is the release of liquid into the colon. The liquid may be tap water, a brand name enema or milk and molasses. With a milk and molasses enema, the enema tube is inserted into the rectum until it reaches the top part of the colon. Because the tube is much smaller than the colon, this is not painful.

- If your doctor recommends an enema, give yourself a powdered milk and molasses enema. The recipe and directions are below.
- In addition to the enema, it is important to take a laxative by mouth (orally) to help push the stool down from the top. Ask your health care provider which laxative you should take.
- Take the enema 4 times a day **and** an oral laxative as prescribed, until you pass a lot of stool (formed/mushy) and the stool becomes liquid. Then stop taking the enemas and oral laxatives.
- For more information, ask your nurse for a copy of “Constipation: Self Help for Severe Constipation.”
- After your impacted stool passes, begin a bowel maintenance program. See “What is bowel management?” on page 4 for more information. Use the following guidelines to set a goal for frequency of bowel movements.
  - If you eat your regular amount of food per day, expect to have a bowel movement every day.
  - If you eat one-half your regular amount of food, expect to have a bowel movement every other day.
  - If you eat one-third your regular amount of food, expect to have a bowel movement every third day.
  - If you do not have a bowel movement by 4 p.m. on the day you expect one, try drinking 4 ounces of prune juice at room temperature (if refrigerated, warm prune juice in a microwave for 30 seconds). Next drink a hot liquid, such as coffee, tea or a cup of soup.
  - If you do not have a bowel movement by bedtime, take 2 tablespoons or 2 caplets of milk of magnesia (if you do not have kidney problems).
  - If you do not have a bowel movement after breakfast the next day, repeat the milk of magnesia every 6 hours until you have a bowel movement.

## Powdered Milk and Molasses Enema

6 ounces (3/4 cup) hot water

3 ounces powdered milk (do not use cow’s milk)

4.5 ounces (2/3 cup) molasses

1. Put the water and powdered milk in a container. Stir it until the water and milk look fully mixed.
2. Add the molasses. Stir the mixture again until it appears to have an even color throughout.
3. Pour the mixture into an enema bag. Be sure to get the enema bag from the hospital. The type of enema bag that is sold in pharmacies or drug stores may not have a long soft tube.
4. While lying on your left side, gently insert the tube into your rectum about 12 inches. If you cannot insert the tube the full 12 inches, stop when you feel resistance. Release the fluid in the enema and stay on your side. After 20 minutes remove the tube and sit on the toilet.

5. If you need more than one enema, try to insert the tube the full 12 inches while lying on your left side. When it is inserted 12 inches, turn over on your right side. Release the fluid in the enema and stay on your side. After 20 minutes, remove the tube and sit on the toilet.

In addition to the enema, it is important to take a laxative by mouth to help push the stool down from the top. Ask your health care provider which laxative you should take. Take the enema **4** times a day **and** the laxative as prescribed, until you pass a lot of formed/mushy stool and the stool becomes liquid. Then stop taking the enemas and oral laxatives. Be sure to drink at least 2 quarts of fluid per day.

## What is diarrhea?

Diarrhea is frequent bowel movements with liquid stool. Causes of diarrhea include:

- Surgery that removes part of the GI tract, causing food and fluid to move through faster than before surgery
- Food allergies or food intolerance, such as lactose intolerance – There are different levels of lactose intolerance. Some people have problems only with milk, while soft cheese, hard cheese, yogurt or ice cream causes diarrhea for others.
- Adding a large amount of fiber too quickly to your diet – This can cause cramping, bloating and diarrhea.
- Taking certain types of antibiotics, which can kill normal healthy bacteria in the colon
- Radiation treatment to the abdomen – This changes the cells that line the intestines. The intestines become “slick,” causing fluid and food to move through quickly.
- Gastrointestinal infections, such as clostridium difficile, also called “c-diff,” and other organisms in the GI tract
- Impaction – If you have an impaction, liquid stool from the small bowel may seep around the formed stool in the colon. When this happens, you may feel constipated even though you have liquid stools. This type of diarrhea is a sign of severe constipation.
- Certain medicines:
  - Broad spectrum antibiotics (such as Cipro<sup>®</sup> or tetracycline)
  - Laxatives
  - Magnesium-based antacids
  - Some chemotherapy medicines

## Tips to Manage Diarrhea

- Eat small, frequent meals.
- Eat foods from the BRAT diet – bananas, rice, applesauce and toast.
- Limit fluids with meals to less than 8 ounces.
- Drink fluids between meals and avoid hot liquids.

## Treating Diarrhea With Fiber

Mix 1 teaspoon of methylcellulose (Citrucel) **or** 3.4 grams of psyllium (Metamucil) in 2 ounces of water and drink immediately after a meal. Then, do not drink any fluid for 1 hour. This dose of fiber will form a food bolus with your meal and slow the movement of food in the GI tract. Your nurse can help with any questions.

## **Fecal Incontinence**

Many people have a problem with fecal incontinence during cancer treatment. This is the inability to control bowel movements.

If you have accidents and can't hold back a bowel movement, Kegel exercises may help you. Kegel exercises can help strengthen the muscles in the anus, called the anal sphincter muscles. If you have a temporary ileostomy, it is a good idea to practice Kegels. These exercises will help maintain the function of the anal sphincter muscle.

### **To do Kegels:**

1. Tighten the buttock muscles that you use to hold back a bowel movement. Hold this position for 5 to 10 counts. Count: 1–1000, 2–1000, 3–1000 and so on.
2. Relax to the same count. Notice the difference between tension and relaxation.

It is important to contract and release the muscles for the same amount of time. The sustained contraction and sustained relaxation strengthens the muscles. The muscles will help you hold back stool until you get to a toilet.

Do Kegels 10 times, 4 times a day to keep the anal sphincter muscles strong. Do this exercise when you are sitting, standing and walking so you learn how to combine movement with holding the muscles tight.

If you have more than 3 liquid stools that measure above 1,500 cc (equal to 6 cups or 48 ounces) in a 24-hour period, contact your doctor for instructions.

## **Treating Gas**

Many people have gas and discomfort after eating vegetables, grains, beans and other high-fiber foods. Additional causes of gas include carbonated beverages, chewing gum and a lack of enzymes to digest certain foods.

It is normal to pass gas 15 times a day. Gas varies from person to person because food affects people differently. Follow these suggestions to manage gas.

- Keep a diary of the foods that you eat. From this, figure out the foods that cause gas. Avoid these foods. Also, ask your dietitian for a list of foods that commonly cause gas.
- Try taking gas-relief pills. Simethicone is the ingredient in gas-relief pills that breaks down large gas bubbles into smaller bubbles and this will help decrease pain from gas. Buy gas-relief pills with simethicone without a prescription in most drug and grocery stores.
- Try taking Beano<sup>®</sup>. Beano contains an enzyme that is needed to digest complex carbohydrates in beans, vegetables and whole grains. Beano helps prevent gas before it happens. Buy Beano without a prescription in most drug and grocery stores.
- To help push the gas out, drink a hot liquid and then lie on your belly over 2 pillows. After a few minutes, you should pass the gas.
- Practice Kegel exercises to help control the passing of gas.