LAURIE SANDS, 68, comes to your clinic with complaints of abdominal pain. She’s a grandmother of three with a long history of arthritis who’s 6 months postop following a hip replacement. She says that she’s been having problems with bloating and indigestion since her surgery. After further questioning, she admits that she’s been having only two bowel movements a week and when she does, she strains.

What’s going on with Mrs. Sands? If you immediately thought of constipation, you’re probably right.

In this article, I’ll discuss how and why constipation may occur, the signs and symptoms to watch for, diagnostic testing and treatment options, and what you need to teach your patients about coping with and overcoming this common problem.

But, first, let’s briefly define constipation.

Irritable irregularity
Constipation can affect adults of any age, but its incidence increases with age and is as high as 20% in older adults. Twenty to thirty percent of people over age 65 use some form of laxative therapy to treat this problem. Constipation can also affect pregnant women, postop patients, and even children.

Although no definition is universally accepted, constipation is commonly described as follows (see The Rome III Criteria for constipation):
stop you up
for constipation for one set of criteria):

- infrequent or irregular defecation (less than three times/week) with lumpy or hard stool that’s difficult or painful to pass
- decreased stool volume
- stool retention and accompanying straining, bloating, intestinal gas, abdominal discomfort, or the feeling of incomplete bowel evacuation.

Constipation can be further classified as either primary (idiopathic) or secondary. Let’s take a closer look.

**Idiopathic constipation**, which has no definitive cause, is typically classified into three categories:

- **outlet obstruction** (pelvic floor dysfunction)—normal or slightly slowed colonic transit with the inability to adequately evacuate contents from the rectum
- **slow colonic transit**—slower than normal movement of contents from the proximal colon to the distal colon and rectum
- **normal-transit constipation** (also known as functional constipation [most common])—although stool passes through the colon at a normal rate, constipation still occurs with no sign of injury, infection, or anatomic abnormality to explain its cause.

Keep in mind that more than one mechanism may contribute to a patient’s constipation.

**Secondary constipation** may be caused by lifestyle factors, such as a low-fiber diet or irregular eating habits; rectal or anal disorders, such as anal fissures or thrombosed hemorrhoids; neuromuscular disorders, such as Parkinson’s disease and multiple sclerosis; metabolic disorders, such as diabetes and hypothyroidism; connective tissue disorders, such as scleroderma; and medications, such as opioids or tricyclic antidepressants (see These drugs can cause a backup).

Now that you know some of the possible causes of constipation, what’s actually going on with Mrs. Sands? Let’s take a look at the inner workings next.

**All backed up and nowhere to go**

Although the pathophysiology of constipation is poorly understood, it’s thought to interfere with one of three major functions of the colon:

- **mucosal transport**—mucosal secretions help move the contents of the colon
- **myoelectric activity**—this activity aids mixing of the rectal contents and propulsion
- **defecation process**—the urge to defecate

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**These drugs can cause a backup**

**Prescription drugs**

- Opioids
- Tricyclic antidepressants
- Anticholinergic agents
- Calcium channel blockers
- Antiparkinsonian drugs
- Sympathomimetics
- Antipsychotics
- Diuretics
- Antihistamines

**Over-the-counter drugs**

- Antacids
- Calcium supplements
- Iron supplements
- Antidiarrheal agents
- Nonsteroidal anti-inflammatory drugs
is signaled by the propulsion of feces from the sigmoid colon to the rectum. Rectal dis-
tension causes the internal sphincter to relax and the pelvic floor muscles descend, per-
mitting the straightening of the rectum (squatting or sitting facilitates defecation, as does a rise in intra-abdominal pressure).

The urge to defecate initiates four actions:
- stimulation of the inhibitory rectoanal reflex
- relaxation of the internal sphincter muscle
- relaxation of the external sphincter muscle and pelvic muscles
- rise in intra-abdominal pressure.

Interference with any of these processes can lead to constipation. Decreased muscle tone, which occurs with aging, can also lead to constipation because stool is retained longer.

How does all of this stack up for Mrs. Sands? Let’s review the signs and symptoms of constipation to watch out for.

I’m all stopped up!
Besides what’s outlined in the Rome III Criteria, additional signs and symptoms of constipation may include:
- abdominal distension, bloating, or pain
- gurgling or rumbling sounds in the abdomen
- indigestion
- nausea or vomiting
- decreased appetite
- headache
- fatigue.

If the patient consistently exhibits two or more of the Rome III Criteria for the past 3 months, with symptom onset at least 6 months before diagnosis, and any of the additional signs and symptoms listed, she may be suffering from constipation.

Besides being irritating, constipation can also be dangerous. Potential complications include:
- hemorrhoids
- fecal impaction
- bowel obstruction
- bowel perforation

### What’s the holdup?
Ask your patient the following questions if you suspect constipation:
- How many bowel movements do you typically experience per day? Per week?
- Do you typically strain during a bowel movement? If so, how often?
- Describe the stool type you usually pass (separate hard lumps, sausage-like, soft blobs, watery).
- Do you ever see blood in the stool?
- After a bowel movement, do you have a sense of complete evacuation?
- Do you ever use physical maneuvers to assist with bowel movements?
- Are your bowel movements painful?
- Do you ever feel bloated? If so, how often?
- What’s your main symptom (reduced stool frequency, bloating, hard stool, straining, rectal or anal pain)?
- How would you describe normal bowel movement frequency and consistency?

- electrolyte disturbances.

Chronic constipation is also associated with an increased risk of colon and rectal cancer due to the prolonged buildup of toxins and harmful bacteria in the colon, which can cause minor cell damage leading to abnormal cell proliferation.

Because you suspect Mrs. Sands is constipated, what’s the next step? Taking a health history and performing a physical exam are up next.

### Constipation consternation
First, you’ll need to obtain a detailed health history by asking Mrs. Sands a series of questions about her bowel patterns (see What’s the holdup?). Discussing bowel patterns may make her feel nervous or embarrassed. Reassure her and explain why you need to collect this information.

Ask Mrs. Sands about her exercise and activity level and about her normal fluid intake and diet. Note any medications she’s taking, what she does to relieve constipation, and if she’s been using a laxative. Look for routines she carries out when she has a bowel movement and identify any recent changes that may contribute to constipation, such as recent surgery, opioid use, and dietary changes.
Next, you’ll need to perform a physical exam, including an abdominal exam and a digital rectal exam (see *Picturing the anal canal and rectum*). Let’s take a closer look.

To palpate the abdomen for the presence of stool, have Mrs. Sands lie on her back (unless contraindicated). You can usually palpate fecal masses on the left side of the abdomen (corresponding with the descending colon), where they’re harder than what you might feel in another area of the abdomen. This is because feces become more solid in the descending colon before passing out of the body. If the mass is indented and mobile, it’s probably stool. If the mass isn’t indented or movable, it
might be a tumor. Report your findings to the health care provider.

When performing the digital rectal exam, use a gloved, lubricated finger to evaluate the resting tone of the sphincter while Mrs. Sands squeezes: The voluntary external anal sphincter will tighten with squeezing; the internal sphincter won’t. Compress the puborectalis muscle (located above the internal sphincter) between the examining finger and your thumb while she squeezes to assess for acute localized pain along the muscle’s border. Assess the expulsionary force by asking Mrs. Sands to try to expel your finger.

### Ruling out is the rule

To rule out more serious conditions, such as cancer, and to possibly determine the cause of constipation, the health care provider may order these tests:
- thyroid tests to rule out thyroid disease
- serum calcium level to rule out metabolic disorders
- fecal occult blood tests to rule out gastrointestinal bleeding
- abdominal X-ray to rule out bowel obstruction
- sigmoidoscopy or colonoscopy, in which a lighted flexible tube is used to examine the colon and rectum to rule out colorectal cancer
- barium enema, in which the lining of the bowel is coated with a contrast dye (barium) so the rectum, colon, and part of the small intestine can be seen clearly on X-ray
- bowel transit study, in which the patient swallows a radio-opaque tablet; X-ray is used to measure the time it takes the tablet to pass through the bowel.

### A closer look at laxatives

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<thead>
<tr>
<th>Drug type and examples</th>
<th>How it works</th>
<th>Nursing considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Saline</strong></td>
<td>Nonabsorbable magnesium ions alter stool consistency by drawing water into the intestines through osmosis, stimulating peristalsis</td>
<td>Only short-term use is recommended because of toxicity risk. Patients with renal insufficiency shouldn’t take magnesium laxatives.</td>
</tr>
<tr>
<td><strong>Bulk-forming</strong></td>
<td>Polysaccharides and cellulose derivatives mix with intestinal fluids and then swell, stimulating peristalsis</td>
<td></td>
</tr>
<tr>
<td><strong>Stimulant</strong></td>
<td>Stimulation of sensory nerve endings and increased mucosal secretions irritate the colonic epithelium</td>
<td>Teach the patient to take this drug with 8 ounces of water and follow with 8 ounces of water. Warn her not to take it dry and tell her to report abdominal distension or an unusual amount of flatulence.</td>
</tr>
<tr>
<td><strong>Stool softener</strong></td>
<td>Aqueous and fatty substances mix through surfactant action on the colonic epithelium, hydrating the stool; doesn’t exert a laxative action</td>
<td>Patients who should avoid straining, such as those with cardiac disease or anorectal disorders, can safely use a stool softener.</td>
</tr>
<tr>
<td><strong>Osmotic</strong></td>
<td>Cleanses colon rapidly and induces diarrhea</td>
<td>Because this is a large-volume product, it takes time to safely consume and may cause considerable nausea and bloating.</td>
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work its way through the bowel.

After a more serious condition is ruled out and constipation is confirmed, Mrs. Sands’ treatment will be based on the underlying cause. Let’s look at the available options.

**Stopping stop-ups**

Treatment for constipation focuses on gradually increasing fiber intake (recommended daily amount is 25 to 30 grams/day) and increasing exercise. More fluid intake may also be recommended; however, few evidence-based studies support the effectiveness of increased fluid consumption in relieving constipation. The health care provider may prescribe a laxative for short-term use.

Examples of laxatives include a bulk-forming laxative (Metamucil), saline laxative (milk of magnesia), stool softener (Colace), stimulant laxative (Dulcolax), or osmotic laxative (Colyte). For information about the action of common laxatives and what to teach your patients about their use, see *A closer look at laxatives.*

Long-term laxative use isn’t recommended because it may cause adverse reactions, such as:

- nausea
- vomiting
- abdominal cramps
- weakness
- diarrhea
- electrolyte imbalance
  - dizziness
  - confusion
  - sweating.

If a patient needs to use laxatives long-term, the health care provider may prescribe a bulk laxative with an osmotic laxative and monitor her closely.

Older patients who chronically use laxatives and stool softeners are at risk for developing the following problems:

- increased constipation
- diarrhea
- elevated magnesium levels in the blood (hypermagnesemia)
- elevated phosphate levels in the blood (hyperphosphatemia)
- low levels of albumin in the blood (hypoalbuminemia)
- poor response to bowel preparation for barium enema
- increased risk of fecal incontinence and perianal soiling.

Another constipation treatment option is the recently approved chloride channel activator, lubiprostone (Amitiza), which increases intestinal fluid secretion to aid feces in moving along the bowel.

**Conquering the constipation challenge**

Now that you’re all set to help Mrs. Sands manage her constipation and prevent it from recurring, emphasize the importance of lifestyle modifications. Encourage her to take an active role in self-care and advise her to:

- eat high-residue, high-fiber foods, such as fresh, uncooked fruits and vegetables and whole grain products, with the gradual addition of unprocessed bran daily (6 to 12 tablespoons) unless contraindicated

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**On the Web**

These online resources may be helpful to your patients and their families:

International Foundation for Functional Gastrointestinal Disorders: [http://www.aboutconstipation.org](http://www.aboutconstipation.org)

MedicineNet.com’s Constipation Center: [http://www.medicinenet.com/constipation](http://www.medicinenet.com/constipation)


increase the amount of fluids (water and juice) she drinks if not contraindicated.

Discuss normal variations in bowel patterns. Some people have a bowel movement every day, others every 3 to 5 days. Emphasize that a daily bowel movement isn’t necessarily the norm for every person. During the health history, establish what’s normal for her and make it a goal to obtain that norm.

If a laxative has been prescribed for Mrs. Sands, make sure she understands how to use it properly and what adverse reactions to be aware of.

Regularity rocks!
Constipation affects people for different reasons, so you’re likely to come across many patients with this problem. But with your expert care and guidance, a patient like Mrs. Sands should return to regularity in no time.

Learn more about it

INSTRUCTIONS
Don’t let constipation stop you up

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Don’t let constipation stop you up

GENERAL PURPOSE: To familiarize the registered professional nurse with recognizing, preventing, and managing constipation.

LEARNING OBJECTIVES: After reading this article and taking this test, you should be able to: 1. Describe the pathophysiology and incidence of constipation. 2. Identify symptoms and tests used to diagnose constipation. 3. Discuss therapies for treating constipation.

1. Approximately what percentage of older adults suffer from constipation?
a. 20%
b. 40%
c. 60%

2. The approximate percentage of people over age 65 who use laxatives is
a. 25%.
b. 45%.
c. 65%.

3. A constipated person has a bowel movement less than
a. 7 times/week.
b. 5 times/week.
c. 3 times/week.

4. One cause of idiopathic constipation is
a. muscular sclerosis.
b. pelvic floor dysfunction.
c. low-fiber diet.

5. What’s the most common type of idiopathic constipation?
a. functional
b. outlet obstruction
c. slow colonic transit

6. Which of the following can cause secondary constipation?
a. high-residue diet
b. irregular eating patterns
c. bland diet

7. The defecation urge stimulates
a. the inhibitory rectoanal reflex.
b. internal sphincter contraction.
c. pelvic muscle contraction.

8. Which of these symptoms most likely indicates constipation?
a. straining during 10% of bowel movements
b. increased hunger
c. indigestion

9. To diagnose constipation using the Rome III Criteria, at least two criteria must be met for the past
a. 3 months.
b. 6 months.
c. 9 months.

10. Where in the abdomen is stool usually palpable?
a. on the left side
b. on the right side
c. in the center

11. On palpation, fecal mass in the descending colon is usually
a. indented.
b. immobile.
c. pliable.

12. Squeezing around a finger during a rectal exam should result in
a. puborectalis muscle relaxation.
b. internal anal sphincter tightening.
c. external anal sphincter tightening.

13. What test is frequently used to rule out bowel obstruction?
a. sigmoidoscopy
b. abdominal X-ray
c. bowel transit study

14. What test is used to rule out colorectal cancer?
a. fecal occult blood
b. colonoscopy
c. barium enema

15. What daily fiber intake is recommended?
a. 25 to 30 grams
b. 35 to 40 grams
c. 45 to 50 grams

16. Which lifestyle modification has little evidence available to support its effectiveness in relieving constipation?
a. increased exercise
b. increased fluid consumption
c. increased fiber intake

17. What medication relieves constipation by increasing intestinal fluid secretion?
a. psyllium hydrophilic mucilloid
b. magnesium hydroxide
c. lubiprostone

18. Which laxative should not be taken by patients with renal insufficiency?
a. magnesium hydroxide
b. bisacodyl
c. psyllium hydrophilic mucilloid

Ready, set, ace this test!

Turn to page 58 for the CE Enrollment Form.