

# DIVERTICULAR DISEASE OF THE COLON

By Ernst Bontemps, M.D. and Peter M. Pardoll, M.D., FACP  
Center for Digestive Diseases  
South Pasadena, FL

## 1. What Is Diverticulosis?

Diverticulosis refers to the presence of small out-pouchings (called diverticula) or sacs that can develop in the lining of the gastrointestinal tract. While diverticula can be present anywhere in the entire digestive tract, they are most common on the left side of the large intestine, the area known as the descending and sigmoid colon (Figure 1).

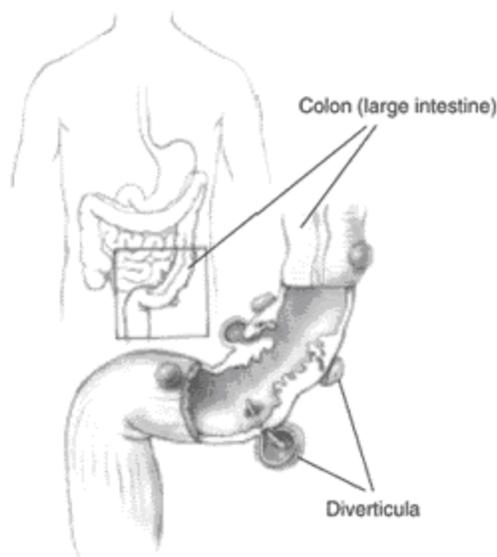


Figure 1

## 2. How common is diverticulosis?

Diverticulosis is a common disorder especially in older people. The condition is rarely seen in people under the age of 30 and is most common in those over 60. Both men and women are equally affected.

## 3. What causes diverticulosis?

No one knows for certain why diverticulosis develops; however, a few theories have been suggested. Some experts believe that abnormal contraction and spasm (resulting in intermittent high pressure in the colon) may cause diverticula to form in a weak spot of the intestinal wall. Low fiber diets may play a role in the development of diverticulosis. In rural Africa where the diet is high in roughage, diverticulosis is rare. There also appears to be a genetic predisposition to diverticulosis, that is, if your parent or grandparent had diverticulosis you may develop it as well.

#### **4. What are the symptoms of diverticulosis?**

Most patients with diverticulosis have no symptoms. Many will never know they have the condition until it is discovered during an endoscopic or radiographic (Xray) examination. While most people have no symptoms, some individuals may experience pain or discomfort in the left lower abdomen, bloating, and/or a change in bowel habits.

#### **5. How is diverticulosis diagnosed?**

Diverticulosis is generally discovered through one of the following examinations:

- Barium enema: This x-ray test involves injection of liquid material into the colon through a tube inserted in the rectum. The x-ray image shows the anatomy of the colon, and can identify if diverticula, large polyps or growths are present.
- Colonoscopy: This test uses a thin, flexible tube with a light and camera to view the inside of the colon. Diverticula as well as polyps and other growths can be seen with this instrument.
- CT scan: This x-ray test takes multiple cross section pictures of the body. It is not generally performed to make a diagnosis of diverticulosis, but this type of exam may identify diverticula.

#### **6. Can diverticulosis be prevented or eliminated?**

It is not known whether diverticulosis can be prevented. Constipation, a major cause of excess intra-colonic pressure and thought to be responsible for some cases of diverticulosis, should be avoided. A diet rich in fiber (bran cereals, whole wheat breads, fresh fruits, and leafy vegetables) may decrease the development of diverticulosis, improve symptoms of constipation and decrease the likelihood of complications. Benefits of a high fiber diet may be seen in those who eat between 15 and 30grams of fiber a day. Unfortunately people in the United States generally only consume 8-12 grams a day. Diverticulosis does not appear to be associated with alcohol, smoking or caffeine consumption.

Once diverticula have formed they do not go away. For those who do not have symptoms, increasing fiber in the diet to soften and bulk the stool may decrease the development of more diverticula, or prevent complications. Ask your doctor if you have special concerns.

#### **7. What are the complications of diverticulosis?**

*Diverticulitis* is an inflammation and/or infection of one of the diverticula. People with this complication characteristically present with:

- Fever
- Abdominal pain, usually on the lower left side



- Diarrhea and/or constipation Decreased appetite

Other complications of diverticulitis include development of an abscess or narrowing of the colon (*stricture*). Rarely one can develop a "*fistula*" or connection between the bowel and bladder as a complication of diverticulitis.

*Hemorrhage* or the passage of large amount of bright red blood from the rectum in most cases is due to diverticulosis. It occurs typically without warning and is painless. Severe bleeding has been reported in 3-5% of people with diverticulosis and usually stops without special treatment. Endoscopic examination of the colon may be necessary to diagnose and treat the cause of bleeding. Nuclear medicine bleeding scans can also be used to identify the site of the diverticular bleeding in cases where endoscopy does not reveal the active site. Occasionally angiography (injection of dye into the blood vessels) performed by a radiologist is needed to identify and treat diverticular bleeding. In cases where endoscopic or radiologic management fails to control the bleeding, surgery may be necessary to remove the involved area.

## **8. Treatment for diverticulitis**

Treatment for diverticulitis (an inflamed or infected diverticulum) requires the use of antibiotics and occasionally hospitalization. Recovery is usually uneventful, however if a pericolic abscess persists radiologic drainage via percutaneous catheter can drain and help remove the abscess. Surgery is rarely required but may be needed for cases that don't respond to medical management. A temporary colostomy may be required during surgery for complicated diverticulitis.

## **9. Can diverticulitis be prevented?**

Persons with diverticulosis are sometimes instructed to avoid foods that contain undigestible particles such as popcorn, nuts and fruits with small seeds. The theory of such a diet is that these particles might get "caught" in a diverticulum and precipitate diverticulitis. Proof of effectiveness for such a diet is lacking and only anecdotal stories support this restricted diet for patients.

