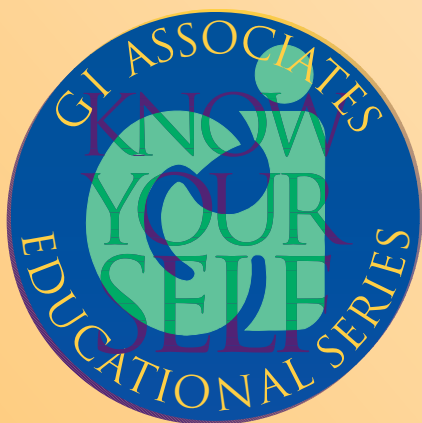


Diverticular Disease



Table of Contents

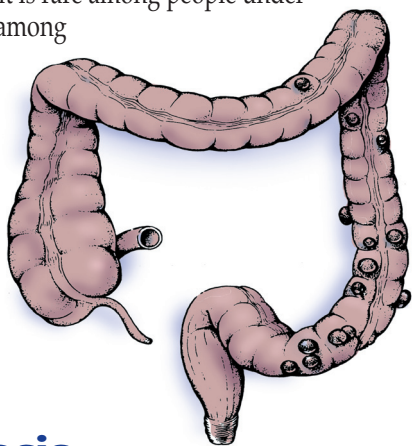
1. What is it?
 1. Diverticulosis
 1. What causes it?
 3. What are the symptoms?
 3. What are the complications?
 3. Diverticulitis
 4. Diverticular bleeding
 4. Perforation
 5. How is diverticular disease diagnosed?
5. Treatment of diverticulosis
6. Why fiber?
 7. Nuts and seeds
 7. Stick with it!
 8. Other lifestyle changes
 8. Other treatment
9. Summary



Diverticular Disease

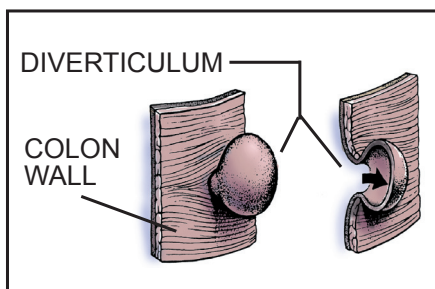
What is it?

Diverticular disease is one of the most common conditions of the gastrointestinal system, affecting approximately 30 million Americans. The term *diverticular disease* includes *diverticulosis* and *diverticulitis*, both of which will be discussed. Although it can occur at any age, it is rare among people under age 35. It is common among those over 40 and affects more women than men. By age 60, about 50% of the population will have diverticulosis. By age 80, the percentage increases to 80%.



Diverticulosis

Diverticulosis is a condition in which small balloon-like sacs develop in the colon. The sacs or pouches balloon outward from the inside of the colon wall. A single outpouching is known as a *diverticulum*, while many are known as *diverticula*. They may occur anywhere in the colon, but the most common location is near the end or on the left side of the colon.



What causes diverticulosis?

It takes years to develop diverticulosis and it is thought to occur as a result of high pressure in the colon for extended periods of

time. The effect of increased pressure is much like the ballooning of a bicycle inner tube, when the wall of the tube becomes thin and the air pressure on the inside is great.

Diverticulosis is potentially preventable with a high fiber diet.

The normal process of aging may cause the wall of the colon to weaken, contributing to the development of diverticulosis.

Major causes of the disorder are the *lack of fiber in the diet* or *chronic constipation*, both of which cause increased pressure within the colon. Even the regular use or abuse of laxatives, which often accompanies constipation, makes a person more prone to diverticulosis.

In primitive cultures, where the diet mainly consists of large amounts of *roughage* (fiber), diverticular disease is almost



nonexistent! But, in modern times, food processing has taken away much of the natural fiber content. For example, flour is usually processed to take away the coarse outer layer of the wheat grain, which eliminates most of the fiber.

What are the symptoms of diverticulosis?

Many people with diverticulosis have no symptoms. As diverticulosis develops over a long period of time, mild or severe symptoms may develop, depending on the extent and severity of the condition. Some people have spasm-like discomfort in the lower abdomen, usually on the left side. Gas, stomach cramps and constipation with occasional diarrhea are also common.

In *advanced* diverticulosis, the lower colon may become very distorted, narrowed and rigid, making the process of elimination more difficult. Then, symptoms may grow worse, with more severe cramps and pain, constipation, occasional bouts of diarrhea and possibly, thin pellet-like bowel movements.

What are the complications of diverticulosis?

Once diverticula have developed, *major* problems may occur, but are not very common. The three most common serious complications are *diverticulitis*, *rectal bleeding*, and *perforation*. Pain, fever and bleeding, or a combination of those, are likely to be a part of such complications. If you have diverticulosis and any of these symptoms occur, you should contact your physician immediately.

• Diverticulitis

Diverticulitis is an inflammation or infection of one or more diverticula. It occurs in about 5-15% of all patients who have diverticulosis. However, that small percentage accounts for over 200,000 hospitalizations a year. About 10% of patients with diverticulitis require surgery.

Traditionally, an attack of diverticulitis was thought to be caused by eating nuts or seeds (pieces of which might become lodged in the diverticula), but there is no scientific proof of that.

Symptoms of diverticulitis may include pain, fever, and changes in bowel habits (constipation, diarrhea, or both). Nausea and vomiting might also occur.

Diverticulitis may be present to a slight degree for quite some time with mild symptoms, but could develop suddenly, with intense symptoms.

Diverticulitis is usually treated with a combination of antibiotics and a low residue diet. Extreme cases may require hospitalization and/or surgery.

- **Diverticular Bleeding**

A diverticulum may bleed, causing bright red blood to appear in the stool. The amount of blood may range from a small amount to massive bleeding. Any bleeding requires medical attention and should be evaluated by your gastroenterologist.



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Sometimes it is necessary to perform diagnostic tests to determine the nature and location of the bleeding site. If bleeding does not stop or occurs again, surgery may be needed.

- **Perforation**

The least likely, but most serious complication of diverticulosis is *rupture* or *perforation* of a diverticulum. When this happens, contents of the colon, containing bacteria, spill into the abdomen

and cause an *abscess* (open sore) or *peritonitis*, an extensive infection of the abdomen. High fever and intense abdominal pain are usually present with this complication and it can be life-threatening. Surgery is usually required to treat it.

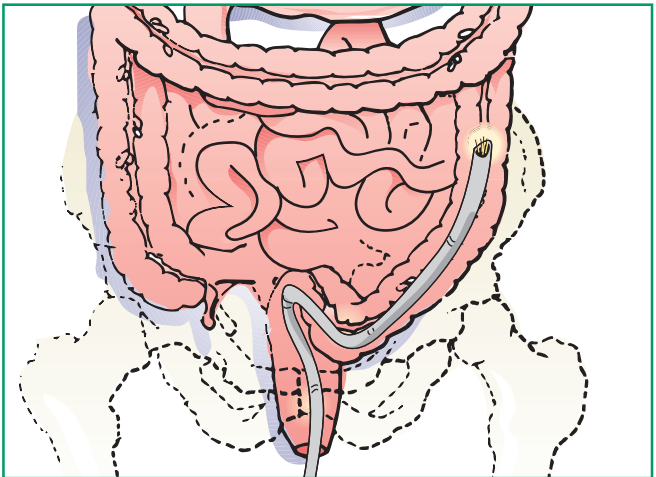
How is diverticular disease usually diagnosed?

The physician usually diagnoses diverticulosis by careful physical examination, by listening to the patient's description of symptoms and by ordering diagnostic tests. Tests that might be used include *barium enema* (an x-ray of the colon) and *colonoscopy* (a procedure used to look at the inside of the colon through a flexible lighted tube).

Treatment of diverticulosis

Treatment of diverticulosis is a reminder of the saying "pay now or pay later". We all know that a high fiber diet is good for our health and helps prevent diverticulosis. So, if we do not eat a high fiber diet during our younger years the chances are very high that we may "pay later" by developing diverticulosis. And, once you develop diverticulosis, guess what the primary *treatment* is? Ironically, it is increased fiber in the diet!

There is no known way to get rid of diverticula once they have formed, but adding more fiber to the diet not only helps prevent *new* diverticula, but also minimizes or controls uncomfortable symptoms.



Why fiber?

Fiber is crucial to both the prevention and treatment of diverticulosis, because it helps prevent constipation, reduces the pressure inside the colon and keeps diverticulosis from becoming more extensive or severe.

Although fiber (or roughage) *itself* does not contain vitamins and minerals, it is an important part of the diet. It is not digested, but absorbs water, which makes the stool softer and bulkier.

Many foods are great sources of fiber. Raw fruits and vegetables, bran muffins, breads and cereals, as well as cooked peas and beans are good choices, but the amount of fiber in those foods varies quite a bit. The average American diet does not contain enough fiber. For good health, the current recommended level of fiber is between 30 and 40 grams per day, yet the average American diet contains only 15 to 20 grams per day.

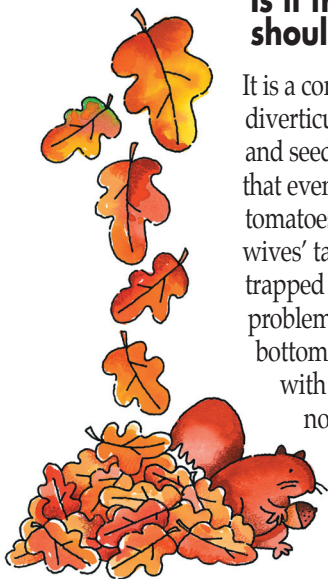
Once you have diverticulosis, it is necessary to continue a high-fiber diet *always*, unless your physician recommends otherwise. When your gastroenterologist recommends a high-fiber diet, you will be given more information about high-fiber foods that will help you choose the best foods.

Sometimes, a dietary supplement will be prescribed to provide extra fiber. These are known as *bulking agents*. You may know some of those by brand name: *Metamucil*, *PerDiem Plain*, *Effersyllium*, *Citrucel*, *Hydrocil Instant* and *Miller's Bran*.



Is it true that nuts and seeds should be avoided?

It is a common *myth* that people with diverticular disease should avoid all nuts and seeds. A common misunderstanding is that even the tiny seeds like those in tomatoes should be avoided. It is an “old wives’ tale” that one of the seeds could get trapped in a diverticular pouch and cause problems. This is simply not true. The bottom line is that it is O.K. to eat foods with seeds. Most of the time they cause no problems, in fact, such foods are usually high in fiber and many are low in fat. As with any food, if it seems to really bother you, don’t eat it.



Stick with it!

The average person who is used to eating a low fiber diet may experience some intestinal discomfort when changing suddenly to a high fiber diet. To avoid that, either add high fiber foods *gradually* into your usual diet or just “tough it out”. Minor discomfort will go away as your body adjusts to the new healthier diet!

As with most health problems, the best “medicine” is prevention!

We know that diverticulosis can be avoided by having a high fiber diet for life. Those that do not have diverticulosis *will* if they usually follow a *low fiber diet*. In addition to staying on a high fiber diet, encourage your loved ones to do the same! The preventive effects are many. Not only does a high fiber diet prevent diverticulosis, but also there is evidence that it reduces your risk of cardiovascular disease and colon cancer.

Other Lifestyle changes

Regular exercise and plenty of fluids (especially water) in the diet helps prevent constipation. And, preventing constipation reduces the chances of diverticula forming and helps avoid complications from those that are already there. Regular exercise also helps prevent constipation.

Lifestyle changes to treat diverticulosis include:

- Plenty of fluids
- Regular exercise

Other treatment

As mentioned earlier, when complications occur, other forms of treatment may be prescribed, including *antibiotics* to treat infection and occasionally, *antispasmodic* drugs to minimize discomfort from cramping.



In summary...

Having diverticulosis may be uncomfortable, but need not be a serious problem. By following your gastroenterologist's advice, reporting any unusual or severe symptoms, and being treated early for complications, you can help yourself live with this problem without serious consequences.

