



Diverticula, Diverticulosis, Diverticulitis: What's the Difference?

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What are Diverticula?

A gut diverticulum (singular) is an outpouching of the wall of the gut to form a sac or pouch. Diverticula (plural) may occur at any level from the esophagus to the colon. There are different ways to classify a diverticulum as either being a true diverticulum or a false diverticulum. A true diverticulum includes all three layers of the gut; the lining mucosa, the muscle, and the outer serosa (see Figure 1). False diverticula are missing the muscle layer and are therefore very thin walled.

The **Esophagus** is the muscular tube through which food passes from the mouth to the stomach.

Colon –large intestine.

The **Rectum** is the final section of the large intestine where bowel movements are stored before being emptied through the anus.

The **Anus** is the lower opening of the GI tract.

usually more, by the age of 60. Although diverticulosis has traditionally been thought of as a condition found in older individuals, it is increasing in younger individuals as well. Diverticulosis is the most common finding on a routine colonoscopy. A colonoscopy is a simple test that does not involve cutting into the body. A healthcare provider uses a long flexible tube called an endoscope. This tube has a camera and light on the end. This tool allows your provider to see inside your GI tract to examine the lower portion of the GI tract. This flexible tube is inserted through the anus, into the rectum and colon.

Colonic diverticula are typically false diverticula. The condition of having a diverticulum or diverticula is called "diverticulosis." Inflammation of a diverticulum and the surrounding tissue is called "diverticulitis."

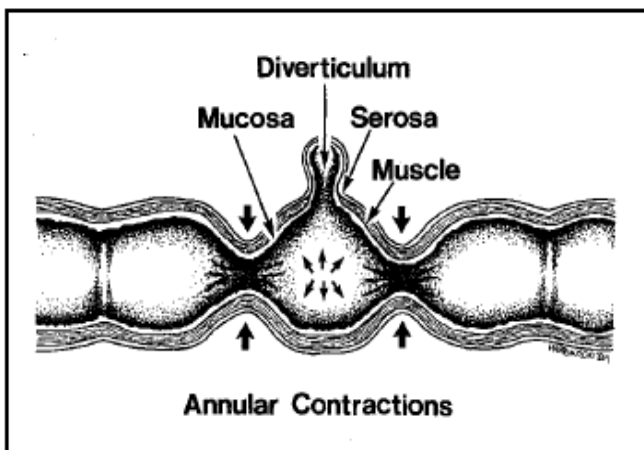
Diagnosis of diverticulosis is most common in Europe and Australia and less so in Africa and Asia. It is believed that these changes may be related to differences in diet, lifestyle, and detection technologies.

How common are colonic diverticula?

Diverticula occur throughout the gut, but the majority are in the colon. In the United States, over half the population will have at least one diverticulum, and

What causes colonic diverticula?

The formation of diverticula is not completely understood. It is thought to be related to relatively high pressure caused by stool pushing against the colon wall and weakening it, causing outpouching. Though most diverticula occur in the left colon, they can also occur elsewhere. They are typically not seen in the rectum. The muscle layer along the site of left colon diverticula is commonly thickened, lending credibility to the notion of high pressure within the colon. The result may be rows of bulges along the colon at the sites of the penetrating arteries. Arteries are blood vessels that distribute oxygen-rich blood to your entire body. People with connective tissue disorders may be more likely to have diverticulosis.



Do diverticula cause symptoms?

Most individuals who possess colonic diverticula are unaware of them.

Diverticulosis is often an “incidental” finding (seen on a CT scan or colonoscopy that was done for reasons other than looking for diverticulosis specifically).

Computed tomography (CT) scan is a test that uses a series of X-rays and a computer to produce a 3D image of the inside of your body.

There is controversy about whether diverticula can cause symptoms by themselves, without overt inflammation present. Some healthcare providers would treat symptoms of abdominal pain, bloating, and changes in bowel movements (diarrhea or constipation) as diverticular disease, while other healthcare providers would treat these symptoms as irritable bowel syndrome (IBS). Diverticulosis and IBS are very common, so you can have both at the same time, although one may not cause the other. It is important to give your healthcare provider a description of how frequently you get belly pain, what it feels like, what triggers it, and if other factors are present, like fever, vomiting, or diarrhea.

Risk Factors

Diverticulitis – diverticulum can become inflamed and burst, causing inflammation and pain in that location, as well as fever, decreased appetite, and often changes in bowel movements (BMs). Risk factors for diverticulitis include conditions related to a chronic inflammatory state, like cardiovascular disease, diabetes, and obesity. A chronic inflammatory state is when the body has long-term inflammation lasting several months to years. In addition, lifestyle habits like physical inactivity, cigarette smoking, and chronic use of medications like non-steroidal anti-inflammatories (like ibuprofen), steroids, and opiates are associated with a higher risk of diverticulitis. It has not been proven that nuts and seeds cause diverticulitis and research suggest that those who avoid nuts and seeds may be more likely to have diverticulitis, perhaps because avoiding nuts and seeds leads to lower fiber intake.

Learn more about Nuts, Seeds and Diverticula with IFFGD Fact Sheet No. 174

Types of Diverticulitis

Diverticulitis is divided into “uncomplicated” and “complicated” diseases.

Complicated diverticulitis is when there are complications or recurrent symptoms. Complicated diverticulitis is often diagnosed when a pocket of pus (also known as

abscess) is found in the colon or when a hole (or perforation) in the small intestine or colon occurs.

Patients with a pelvic or abdominal abscess can become very ill, and the abscess fluid (pus) must be drained through a large needle

directed by a radiologist, or a surgeon. In very severe cases, the colon above the abscess is brought out to the skin by a surgeon and the intestinal contents are temporarily collected in a bag. This is called a colostomy. Later, when the infection has settled down, the affected colon is removed, and the colon rejoined.

Abdomen - the area between the chest and the hips that contains the stomach, small intestine, large intestine, liver, gall bladder, pancreas, and spleen. It is also sometimes referred to as the belly area.

Pelvic Area - the lower part of the abdomen located between the hip bones.

In some rare cases, peritonitis can occur. Peritonitis is life threatening and requires emergency surgery. It is when there is a perforation of the peritoneum (the area between your skin and most of your visceral organs including the lungs, the heart, and the organs of the digestive, excretory, reproductive, and circulatory systems.) causing peritonitis. Complications of severe diverticulitis can cause narrowing of the colon which can lead to obstructions or fistulas (abnormal connections between body parts which in this case can include the colon to the bladder, small bowel, vagina, or other parts of skin). These complications are rare and should not concern those who have uncomplicated diverticula.

Uncomplicated diverticulitis is more common than complicated diverticulitis. It is diagnosed when the diverticula are found with episodes of localized abdominal pain associated with infection and inflammation.

Treatment of “uncomplicated” diverticulitis usually consists of a low-residue/low-fiber diet and rest until symptoms improve. Studies show that people get better at the same rate whether they get antibiotics or not. However, those living with compromised immunity or who experience repeated or complicated episodes of diverticulitis may benefit from antibiotics.

Diverticular bleeding

Arteries often run within diverticula. Though uncommon, these same arteries can gradually wear through the thin wall of the diverticulum and cause bleeding that is sometimes life-threatening. The earliest symptoms are faintness and the appearance of very bright red blood in the rectum. Such a complication requires hospitalization and blood transfusion. A special kind of CT scan (CT angiogram or bleeding scan) can be performed to locate the source of bleeding. Radiologists may also perform a procedure called an angiography (a type of x-ray used to check blood cells) to try to locate the source of bleeding in real time and treat it. A Colonoscopy is sometimes attempted but can be technically difficult with active bleeding.

Fortunately, the bleeding usually stops on its own, but can recur in about one-quarter of cases. In rare cases, a surgeon must operate to remove the segment of the colon containing the bleeding diverticulum.

What should you do about your colon diverticula?

Diverticula does not shrink over time, and you cannot get rid of them. However, most people will never have problems from diverticulosis. Studies show that a high-fiber diet is associated with less diverticulitis.

Maintaining a healthy lifestyle with plenty of fruits, vegetables, and protein, avoiding tobacco and cigarette smoking, and moderate exercise are excellent for your overall health and may also reduce your risk of diverticulitis. In a large national analysis of men, those who exercised regularly were less likely to have diverticulosis or episodes of diverticulitis or diverticular bleeding.

Talk to your healthcare provider if you have been told you have diverticulosis. It is useful to know if diverticula are present. The information may help your provider in

the event of an attack of pain or bleeding that could result from these otherwise innocent little colonic outpouchings. If you have been diagnosed with diverticulitis, talk with your health care provider about whether you should have a follow-up colonoscopy. This is especially important if you have had complicated diverticulitis.

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