Diverticular Disease

What is a diverticulum?

A diverticulum is a sac-like protrusion of the mucosa (inner lining of the bowel) through the muscular layer of the colon wall. Diverticula develop from areas of weakness in the colonic wall, usually where blood vessels penetrate the wall. Most diverticula occur in the sigmoid colon on the left side of the abdomen. Here, the inside of the colon is narrowest and stool is firmer, resulting in higher pressures.

How common is diverticular disease?

Diverticula are very common. By age 40, 5% of people will have some diverticula. By age 70, 50% of people will have some. Fortunately, most will not develop symptoms.

Who develops symptoms?

About 20% of people with diverticula develop symptoms. Only 10% of these require hospitalization, and less than 1% of all people with diverticula will need surgery. Most symptomatic diverticular disease is due to infection or bleeding.

What are the risk factors for developing diverticular disease?

People who eat a low fiber diet have a much higher rate of developing diverticular disease. High fiber diets are protective because they produce larger, softer stools which are easier to pass. Therefore, the colon does not have to contract as hard. Other risk factors include decreased physical activity, smoking, constipation, obesity, steroid medication use, alcohol and frequent use of non-steroidal anti-inflammatory medications (NSAIDs). Although many doctors recommend avoiding foods with small seeds such as tomatoes, strawberries, sesame seeds or poppy seeds, there is no evidence to support this.

What is diverticulitis?

Diverticulitis is infection of 1 or more diverticula. The inflammation spreads around the colon, causing thickening of the wall and narrowing of the lumen (inside). Symptoms include abdominal pain low on the left, and fever or chills. Some people will have constipation, diarrhea, nausea or vomiting.

How is diverticulitis treated?

Diverticulitis is primarily treated with antibiotics. Depending on the severity of the attack and how the colon looks on a CT scan, antibiotic pills and a liquid diet at home may be all that is needed. If the attack is more severe, hospital admission for bowel rest and intravenous antibiotics may be required.

How likely am I to have another episode of diverticulitis?

After the one attack of diverticulitis that improves with antibiotics, 1/3rd of people will have a second attack. After the 2nd episode, 2/3rds of patients will have another attack. After 3 episodes, up to 90% of people with have more attacks.
What is complicated diverticulitis?
The label "complicated diverticulitis" is used when the attack develops into an abscess (pocket of pus), fistula (hole), obstruction, peritonitis or sepsis (severe infection).

How is complicated diverticulitis treated?
Some complicated diverticulitis may be treated with bowel rest and intravenous antibiotics. However, if an abscess is found on CT scan, a drain may need to be placed. Rarely, emergency surgery with a colostomy is needed. If surgery is not needed at the time of the attack, most people will go on to have the diseased section of bowel removed after they recover. This allows the bowel to be re-connected without a colostomy.

Is other testing is needed after an episode of diverticulitis?
After resolution of the initial episode of diverticulitis, the entire colon should be evaluated with a colonoscopy to confirm the diagnosis and to make sure that other problems such as cancer, inflammatory bowel disease or ischemia are not present.

When is surgery recommended?
Surgery to remove the part of the colon with diverticular disease may be needed urgently when there is severe infection, or electively when you have recovered from a complicated episode or have had several uncomplicated attacks. The decision to recommend surgery on an elective basis is individualized. Considerations include age, other medical conditions, frequency and severity of attacks, and if symptoms persist.

What kind of surgery is done?
Surgery for diverticular disease is aimed at removing the diseased portion of the colon. This is usually the sigmoid colon. Even if there are some diverticula all around the colon, only the area where the attack occurred needs to be removed. However, leaving some sigmoid colon behind is likely to result in a higher rate of recurrent attacks. Elective surgery is usually performed using a minimally invasive or laparoscopic resection through very small incisions. Urgent or complicated surgery may require an open operation through a longer incision.