

Teaching Handout For Flexible Sigmoidoscopy

This patient education handout is intended to help patients and their families learn more about their medical conditions, the options available to them and the possible consequences of their decisions. This information is not intended to be used for diagnosis, or treatment, of any specific individual. Please consult with your physician regarding your particular circumstances.

Your Colon:

Let's begin by learning a few things about your colon. The colon is a hollow tube made of muscle that is the last part of your body's digestive tract. A mixture of undigested food and drink enters the colon from the small intestine for processing. In the colon, water and minerals are absorbed leaving solid waste called stool. The rectum stores the stool until it is passed through the anus during a bowel movement. The colon can only feel pain in the form of stretching or inflammation.

Benefits of the Procedure:

Some of the reasons for flexible sigmoidoscopy include: evaluation of abdominal pain, rectal bleeding, change in bowel habits, and blood in the stool. Colon cancer is a leading cause of cancer death in the United States, fortunately tests are available that can help with early detection. Adenomas or "pre-cancerous" polyps, are abnormal growths that may form on the colon lining. They are frequently found in patients without any personal or family history of colon cancer or polyps. Flexible sigmoidoscopy provides a way for your doctor to see up to one-third of your colon and take samples called biopsies, during the examination. Evidence shows that death due to colon cancer can be reduced by detecting and treating early stage colon cancer, and removing benign or non-cancerous polyps.

Risks of the Procedure:

Like any specialized procedure, flexible sigmoidoscopy has associated risks. Your colonoscopy team is highly trained, and fortunately, problems are rare. If you have any questions, please write them down and discuss them with your doctor. The two most serious complications are bleeding and perforation of the colon, but these happen in less than one percent of all flexible sigmoidoscopies performed. Bleeding may occur following any flexible sigmoidoscopy, but is more common if a biopsy is done or a polyp is removed. A small amount of blood after a bowel movement is not unusual, but a larger amount may signify a more serious problem. Bleeding may require colonoscopy, surgery, or other procedure to control it.

Preparation and Your Procedure:

You can continue eating your regular diet. Prior to your procedure, you will be given materials to help clean out your colon. The clinic will tell you when you need to use them. You may be asked to repeat the preparations if you are still passing a large amount of stool prior to the exam. Your flexible sigmoidoscopy will be done using specialized instruments. An endoscope is a long, flexible tube with a light and lens at the tip. By moving dials on the handset, your doctor can turn and twist the endoscope easily as it's guided through the colon. No pain medication or sedatives are necessary for this procedure; you will be

fully awake. If abnormal tissue is found during the procedure, small samples called biopsies can be taken with a special instrument passed through the scope. Flexible sigmoidoscopy is safely performed in many different settings. Your doctor may choose to do the procedure in a hospital or in an outpatient clinic setting. You will lie comfortably on your left side facing away from the doctor as the examination begins. A brief rectal examination will be done, then the scope will be placed into your anus and moved carefully around your entire colon. Sometimes it's necessary to have you change position to help the scope pass easily. You may be asked to slowly roll to one side or on to your back. Occasionally an assistant will need to apply pressure with their hands on your abdomen to help the endoscope move forward. These are normal maneuvers. Once your doctor moves the scope to the part of the colon called the descending colon, the scope will be slowly taken out. The doctor will carefully inspect your colon lining and take samples of any abnormal tissue at this time. The examination generally takes between 5 to 30 minutes to complete. Once the endoscope is removed from your rectum, the examination is finished. A member of the team will discuss any findings before you leave.

Findings

During your examination, your physician may identify a variety of findings that vary in their importance. Based on your age, certain endoscopic findings are so common that they are almost expected and may be of no significance. We must all keep in mind that what your physician sees during your procedure must be put in perspective with your overall health to determine the importance and relevance of any endoscopic finding to you as a patient. Endoscopic findings during your flexible sigmoidoscopy can be broken down into four main categories: Growths/Tumors, Inflammation, Abnormal Blood Vessels, and Alterations of Normal Anatomy.

1. Growths/Tumors

One of the most common indications for flexible sigmoidoscopy is to evaluate for growths known as *polyps*. A polyp is a growth of tissue that protrudes into the interior of the colon. The vast majority of polyps do not cause symptoms, but large polyps can occasionally cause obstruction or bleeding. Of greatest concern is the potential cancer risk associated with certain types of polyps since not all polyps are the same. Most physicians will subdivide polyps into two main subgroups: neoplastic and non-neoplastic. Both of these types of polyps are benign, meaning that they are not cancerous. However, neoplasia refers to the potential for a polyp to become a cancer; thus, neoplastic polyps represent the precancerous lesions of the colon and have a characteristic appearance that can be identified when examined under the microscope by a pathologist. The most common neoplastic polyp is referred to as an *adenomatous* polyp, or simply, an adenoma. By identifying and removing adenomas, your physician is reducing your risk for developing colon cancer. A good analogy is that the adenoma is the seed that cancers grow from, and by removing the seeds, we don't give cancer a chance to develop. Unfortunately, it is difficult for your physician to determine a neoplastic (precancerous) polyp from a non-neoplastic polyp just by looking at it with the endoscope. Therefore, it is customary to remove all polyps identified and have them sent to a pathologist for final diagnosis. Adenomatous polyps generally require regular endoscopic follow up every 3-5 years to ensure they were completely removed and that no new adenomas have formed.

The most common non-neoplastic polyp is referred to as a *hyperplastic* polyp.

These lesions are usually small and found in 20-30% of people over age 50. They do not have any cancer potential nor do they require any specific endoscopic follow up.

Cancers are generally much larger growths than polyps although large adenomas may have a focus of cancer already developing in it. Cancers can form anywhere in the colon and may be present for years before any symptoms appear. Cancerous growths come in many sizes and shapes but can usually be identified because they tend to be large, irregularly shaped, firm, and bleed easily when touched. However, some cancers are less easily identified and may be inconspicuous flat lesions that require a keen eye and good bowel preparation in order to be discovered.

Your physician can remove almost all polyps and occasionally some cancers during your procedure. Techniques employed to remove these lesions depend on their size, shape, and location in the colon. If there are a lot of large polyps, you can expect your physician to be going in and out as many times as needed to clear all the polyps.

2. Inflammation

The lining of the colon can become inflamed from a variety of causes and is referred to as **colitis**. Inflammatory processes can usually be grouped under one of three main categories: Infectious, Ischemic, or Idiopathic. Most inflammatory processes that affect the colon appear similar during flexible sigmoidoscopy. The lining of the colon is usually red and irritated, swollen, and bleeds easily when touched. Ulcers may be apparent and may range from very small, shallow ulcers to large, deep ulcers. The appearance and distribution of the inflammation may give your physician some clues as to what is causing it, but this is usually non-specific and needs to be put in perspective with the rest of your clinical scenario. Infectious colitis in adults is predominantly due to bacterial organisms. Ischemic colitis occurs whenever there is poor blood flow to the colon lining and may be caused from atherosclerosis, medications, or rarely, inflammation and narrowing of the blood vessels. Idiopathic colitis is a term that physicians use to refer to a group of processes for which medical science has no definite explanation for what is causing the inflammation.

3. Abnormal Blood Vessels

One very common finding during flexible sigmoidoscopy is **hemorrhoids**, or “piles.” Hemorrhoids are masses of veins in the anal canal that arise from congestion and stagnation of blood flow in the normal veins of the anus. Bleeding, pain and irritation, and protrusion from the anus are common symptoms of hemorrhoids. Most hemorrhoids may be treated with high fiber diets, stool softeners, and avoiding prolonged sitting on the toilet. If they are particularly problematic, they may require surgical treatment. Another common vascular abnormality encountered during flexible sigmoidoscopy is **angiodysplasia**. These are usually small abnormal veins in the lining of the colon that are seen with increasing frequency in older patients. Angiodysplasias are benign lesions that are usually asymptomatic but can cause both acute and chronic bleeding. Treatment is only warranted if they are proven to be the cause of bleeding resulting in anemia or if recurrent bleeding requires blood transfusions. Treatment most commonly involves endoscopic cauterization of the abnormal blood vessels, but rarely may require surgery.

4. Alterations of Normal Anatomy

Probably the most common acquired deformity of the colon is *diverticulosis*. The basic abnormality in diverticulosis is small outpouchings of the lining of the colon through the bowel wall. Diverticulosis is extremely common in the Western world and is seen with higher frequency in older patients. It is not reversible but fortunately only about 20% will develop any significant symptoms. Diverticulosis can be a cause of significant intestinal bleeding and also may become infected leading to abscess formation, bowel obstruction, and even peritonitis. Diets low in fiber are thought to be one of the leading predisposing factors to the development of diverticulosis; thus, increasing dietary fiber is one of the mainstays of therapy.

Strictures represent a fixed, focal narrowing of the colon and may be the result of cancers or other growths, scarring from inflammation or ischemia, or external compression from something outside the colon. Strictures may impede the flow of stool and result in abdominal pain, bloating, and alterations in bowel movements. Treatment may consist of dilating the narrowing with instruments passed through the endoscope or by surgery.

Anal fissures are small tears in the lining of the anal canal. Most anal fissures result from the trauma of passing a large firm stool and can usually be avoided by consuming a high fiber diet. Fissures are usually painful (burning or tearing), especially during bowel movements, and may also be a cause of anal/rectal bleeding. Fissures can often be managed by dietary fiber (bulking) agents, sitz baths, and a tincture of time. Rarely, surgery is required for chronic fissures.

Post-Procedure Care

After your procedure, you may experience gas pressure in your stomach. The best thing to do is expel it. Don't hold it in or you may have unnecessary pain or other symptoms. It's not uncommon to have a small amount of bleeding after the procedure and especially if any biopsies are taken. If the bleeding persists or increases, you should seek medical attention. You may be given a follow-up appointment with your physician. The clinic will schedule this as necessary.

Thank you for taking the time to learn more about flexible sigmoidoscopy.
Remember, YOU are the most important member of your health care team!