

Ulcerative Colitis



What is Ulcerative Colitis?

Ulcerative colitis (UC) is a chronic inflammatory disorder of the GI tract that is categorized as a type of idiopathic inflammatory bowel disease (IBD). Idiopathic means the condition arises spontaneously or the cause is not known. UC specifically affects the colon, also called the large intestine. The exact cause of the disease is unclear, but researchers theorize that genetics, the immune system and environmental factors all may interact in causing ulcerative colitis to develop. UC affects both men and women equally—with many patients diagnosed in their teens and early 20s. The condition is unique, both in symptoms and treatment response, for each person. A therapy that works for one individual may not be right for another patient's specific needs.

What Happens, Where and Why

Patients with UC develop inflammation and ulcers that form on the lining of the rectum and colon. While some people with mild UC have no ulcers at all, others may have sores ranging from the size of a match head to that of a quarter. In severe cases the ulcers may involve much larger areas of the colon or even the entire colon lining. The mucosal inflammation develops as a result of the body's abnormal immune response to the "good bacteria," food, and other substances normally found in the intestinal tract. This response causes white blood cells to be sent to the large intestine, creating sites of chronic mucosal damage.

What are the Effects and Complications of Ulcerative Colitis?

This continuous irritation produces a number of mild to severe symptoms, including abdominal pain, gas, blood and/or pus in the stool, diarrhea,

fever, fatigue, and loss of appetite. Additionally, UC patients can develop symptoms and signs of the disease away from the intestine, such as skin rashes, joint pain, or inflammation in the bile ducts of the liver. Patients who have had UC for many years are at increased risk for the development of colorectal carcinoma in the affected segments.

Each person experiences the effects of UC as intermittent attacks. Researchers are not sure why symptoms go into remission, sometimes for months or years at a time, and then suddenly reappear. Some theories suggest that the immune system may react to environmental substances (called antigens), which can trigger a flare up.

How is Ulcerative Colitis Diagnosed at the Lab?

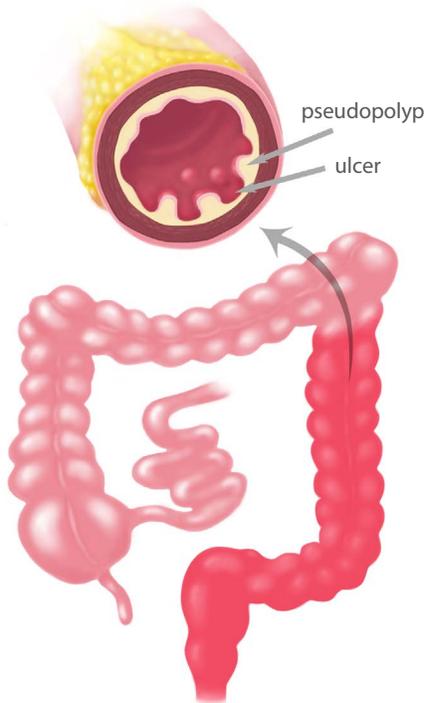
A patient with symptoms such as diarrhea will undergo a colonoscopy. The physician performing the procedure will inspect the colonic mucosa,

which is mucous tissue in the colon, for abnormalities such as inflammation, ulcers, or polyps, and will remove (biopsy) tissue from both normal and abnormal mucosa and send it to a pathology lab. There, the tissue is processed into thin sections which are prepared on glass slides and examined under the microscope by a pathologist, a doctor specialized in the diagnosis of disease.

The pathologist looks for evidence of inflammation in the colonic mucosa (colitis), which can suggest the cause of the symptoms. UC can cause a wide variety of changes, including active inflammation (neutrophils) and ulcers. The pathologist interprets the microscopic findings in the context of the clinical and endoscopic information provided by the patient's healthcare provider.



COLON CROSS-SECTION



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It is important to distinguish UC from other causes of colitis such as infection, since the latter can be treated with antibiotics and patients usually recover quickly with no lasting effects. It is also important to determine whether a patient has UC or Crohn's disease, since these two disorders can be expected to behave differently in a patient, and the drugs and surgical treatments are different. Unlike Crohn's disease, UC involves only the colon and only produces inflammation in the most superficial layers of the bowel wall.

At Miraca Life Sciences, our subspecialist GI pathologists review difficult and unusual cases together at a large multi-headed microscope to ensure the most accurate and definitive diagnoses. The pathologist creates a pathology report with all the important findings, including critical information to help guide treatment and assess prognosis, which is sent back to the patient's healthcare provider.

How is Ulcerative Colitis Treated?

UC has no cure, but medications can control and suppress the immune response. These will help reduce symptoms, allow the colon inflammation to heal and lessen pain. Biologic drugs that address the abnormal immune response may be effective. For patients who take biologics, therapeutic drug monitoring often is used to ensure the optimal level of drug in the body. Miraca provides InformTx™ therapeutic drug monitoring for the biologic drugs used to treat ulcerative colitis. The patient's healthcare provider will discuss the best medication options based on their unique needs.

Aside from medication, diet and lifestyle factors can help UC patients maintain a good quality of life. Proper nutrition is extremely important! Keeping a food diary helps to identify, then eliminate, foods that aggravate the patient's particular system such as high-fiber and highly spiced foods, and foods containing caffeine, milk or dairy products.

Patients should find ways to minimize stress such as exercise, meditation, and improving sleep. In severe cases, surgical removal of the colon may be needed to control symptoms. Patients should remember to keep in contact with their healthcare provider to report progress, discuss problems, and ask questions.

Learn More!

These trusted resources will help you learn more about UC and connect you with others.

www.ccfa.org

Crohn's & Colitis Foundation of America is the leading patient advocacy group for UC/IBD

digestive.niddk.nih.gov/ddiseases/pubs/colitis/

The National Institutes of Health digestive diseases division.

This material is intended for patient education and information only. It does not constitute advice, nor should it be taken to suggest or replace professional medical care from your physician. Your treatment options may vary, depending upon medical history and current condition. Only your physician and you can determine your best option.

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