



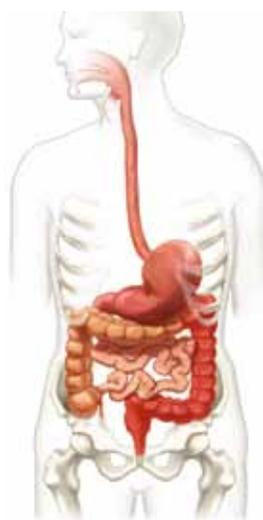
Understanding **ULCERATIVE COLITIS**

What is ulcerative colitis?

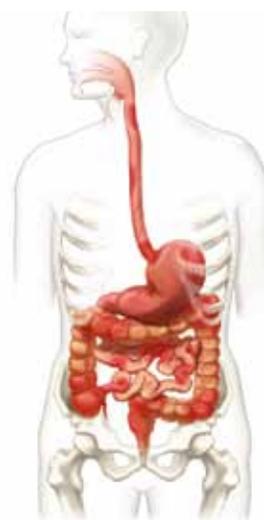
Ulcerative colitis is a chronic disorder affecting the large intestine (colon). The digestive system (including the stomach, small and large intestines) converts food into nutrients and absorbs them into the bloodstream to fuel our bodies. The colon's main role is to absorb water and salts from undigested food waste. This action helps to thicken and solidify the stool, which is then expelled from the body through the anus.

Ulcerative colitis causes inflammation (redness and swelling) and ulceration (sores) along the lining of the colon which can lead to abdominal pain, cramps, bleeding and diarrhea. The disease usually begins in the rectal area, which holds stool until you go to the bathroom, and may involve the entire colon over time. Ulcerative colitis is classified as an inflammatory bowel disease (IBD), due to the inflammation that occurs in the intestines. Another common form of IBD is called Crohn's disease. Although the symptoms of ulcerative colitis are similar to Crohn's disease, the conditions are different in several ways.

While both ulcerative colitis and Crohn's disease are types of IBD, they should not be confused with Irritable Bowel Syndrome (IBS), a disorder that affects the muscle contractions and the sensitivity of the colon. Unlike ulcerative colitis and Crohn's disease, IBS does not cause intestinal inflammation nor damage the bowel.



Ulcerative colitis



Crohn's disease

FEATURE	ULCERATIVE COLITIS	CROHN'S DISEASE
Location of inflammation	Limited to the large intestine (colon and rectum)	Anywhere in the GI tract (from the gums to the bum)
Pattern of inflammation	Inflamed areas are continuous with no patchiness	Patches of inflammation can be found between healthy sections of bowel
Appearance of inflammation	Ulcers penetrate the inner lining of the intestine only	Ulcers can penetrate the entire thickness (several layers) of the intestinal lining
Location of pain	Typically in the lower left abdomen	Typically in the lower right abdomen
Bleeding	Common during bowel movements	Uncommon

ULCERATIVE COLITIS

Canada has one of the highest rates of IBD in the world. It is estimated that more than 230,000 Canadians suffer from IBD with over 4,500 new cases of ulcerative colitis and 5,700 new cases of Crohn's disease being diagnosed every year. The number of people with IBD has been rising, particularly since 2001, and significantly so in children under the age of 10. An estimated 5,900 Canadian children have IBD and 20-30% of people diagnosed with IBD develop the condition before the age of 20.

In Canada, the economic and health-care related costs of IBD are estimated to be \$2.8 billion annually. Direct medical costs (medications, hospitalizations, physician visits) total in excess of \$1.2 billion per year. Causing frequent work and school absenteeism, IBD can significantly erode an individual's productivity and quality of life. Many people develop IBD during the peak years of productivity and family life.

What are the symptoms of ulcerative colitis?

The most common symptoms of ulcerative colitis are abdominal pain, diarrhea, blood in the stool and false urges to have a bowel movement.

- **Abdominal pain (cramping):** Ulcerative colitis pain can be felt anywhere throughout the abdomen, but it is typically located in the lower left side.
- **Diarrhea:** Diarrhea (frequent, loose or watery stools) can range from mild to severe and, in some cases, may involve as many as 20 or more trips to the bathroom a day.
- **Blood and/or mucus in the stool:** Ulcers may form where inflammation has damaged the intestinal lining. These areas bleed and produce pus and mucus, which may appear in the stool.
- **False urges to have a bowel movement:** The urge to have a bowel movement may arise frequently, even though there is little stool to pass. This urge is caused by inflammation of the rectum.

Other symptoms of ulcerative colitis may include:

- Weight loss
- Anemia
- Fatigue
- Nausea
- Fever
- Vomiting

Ulcerative colitis may also cause inflammation problems outside of the gut, leading to joint pain, eye irritation, skin rashes, kidney stones, liver disease, and poor growth in children.

The symptoms of ulcerative colitis vary, depending on the extent of inflammation. At times, the pain and discomfort of ulcerative colitis may be severe and debilitating, and at other times, symptoms may improve or even disappear completely.

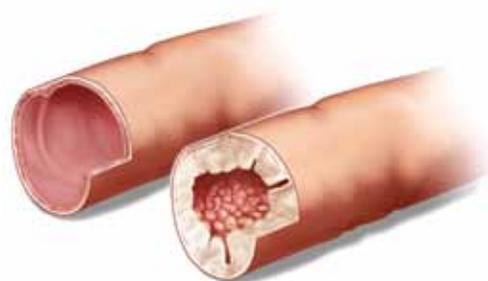


Illustration of normal intestine (left) and intestine with ulcerative colitis (right)

What causes ulcerative colitis?

The exact cause of ulcerative colitis is unknown. However, it is believed to be due to a combination of factors, including a person's genes (inherited traits) and triggers in the environment. This interaction of genetic and environmental factors activates an abnormal response of the body's immune system.

Normally, the immune system protects the body from infection. In people with ulcerative colitis, however, the immune system can mistake microbes (such as bacteria that are normally found in the intestines), food, and other material in the intestines, as invading substances. When

Normally, the immune system protects the body from infection. With IBD, the immune system can cause serious damage.

this happens, the body launches an attack, sending white blood cells into the lining of the intestines where they cause inflammation and ulcerations.

ULCERATIVE COLITIS

Risk Factors

- **Age:** Ulcerative colitis may affect any age group, although there are peaks at ages 15 to 30 years, and again at ages 50 to 70 years.
- **Race/ethnic background:** Ulcerative colitis is more common among whites than non-whites and in people of Ashkenazi Jewish descent.
- **Family history:** People with a first-degree relative (parent or sibling) with ulcerative colitis are at greater risk of developing the condition.

How do I know if I have ulcerative colitis?

Often, symptoms alone can provide doctors with the information they need to diagnose ulcerative colitis. Your doctor will perform a physical examination and take a complete medical history that includes a careful review of your symptoms. For this reason, it is important to be candid and specific with your doctor about the problems you are having.

There is no one specific laboratory test, X-ray or scope to diagnose ulcerative colitis, however, to help confirm the condition and rule out other problems, your doctor may send you to have one or more of the following tests:

- **Blood tests:** Blood tests can help to identify anemia (low blood count), infection and inflammation.
- **Stool sample tests:** A stool analysis can detect blood in the stool and rule out infection, malabsorption, parasites and other digestive problems.
- **Imaging tests:** Your doctor may order tests to see your lower digestive organs. These safe tests can help to diagnose ulcerative colitis or Crohn's disease and identify other problems such as ulcers, polyps (growths on the lining of the intestines) and colon cancer. A sample of the lining of the intestine (biopsy) may be taken to examine under a microscope.

It is important to be **candid** and **specific** with your doctor.

o Flexible sigmoidoscopy:

A slim, flexible tube (sigmoidoscope) equipped with a light and a tiny camera is guided through the rectum into the colon. The sigmoidoscope allows your doctor to examine the lining of the lower part of the colon only.



Sigmoidoscopy

o Colonoscopy:

In a procedure similar to a flexible sigmoidoscopy, a flexible scope allows your doctor to view the lining of both the upper and lower parts of the colon.



Colonoscopy

- o **Barium enema:** A small tube is placed in the rectum and filled with barium liquid and air. Barium coats the lining of the colon and rectum so they can be seen on an X-ray, allowing your doctor to see areas of damage or inflammation.
- o **CT (computerized tomography) scan:** A CT scan produces cross-sectional X-ray images of the abdomen and pelvis to help diagnose ulcerative colitis and rule out other possible disorders and conditions.
- o **MRI (magnetic resonance imaging) scan:** An MRI is similar to a CT scan, but it does not use X-rays to capture an image. An MRI uses magnetism, radio waves, and a computer to produce highly-detailed images of the body. It offers an extremely accurate method of detecting inflammation and disease in the colon and throughout the body.

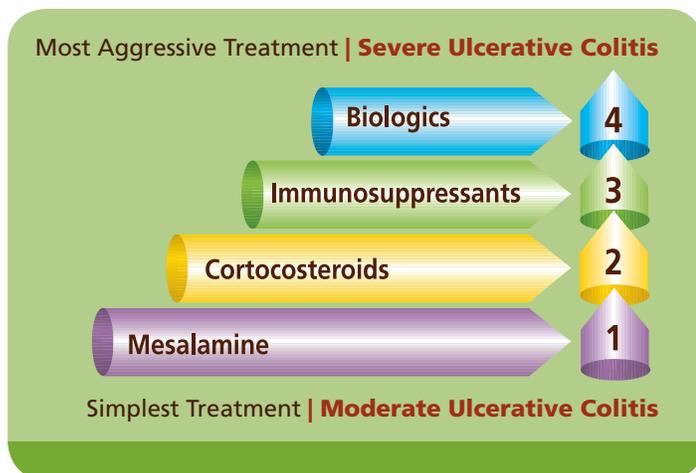
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How is ulcerative colitis treated?

There is no cure for ulcerative colitis at the present time, however, there are effective treatments available that may control your disease and even place it into remission. Remission means that your symptoms disappear completely. Your treatment plan will depend upon the types of symptoms you have, their severity and how they affect your daily life.

Medication

Medications may be needed to control the inflammation in your colon and/or to reduce your body's immune response. The goals of treatment are to manage your symptoms and prevent them from coming back so that you can live life to its fullest. You and your physician should discuss and carefully consider the risks and benefits associated with any available treatment options. Often, medications are prescribed in a 'stepped' approach, beginning with relatively safe medications with few risks or side effects, and progressing to more powerful medications with additional risks and side effects, if your symptoms do not respond.



- **Mesalamine**, also referred to as 5-ASAs (5-amino salicylic acid), is often a first treatment option for mild-to-moderate ulcerative colitis. This medication helps reduce inflammation in the colon and control diarrhea. Amino salicylates can be taken as an oral pill, suppository (a capsule you insert into your rectum) or enema. Suppositories and enemas allow us to locally treat inflammation and help with symptoms of urgency.

- **Corticosteroids** (such as prednisone and budesonide) also reduce inflammation by controlling the body's immune system response. Steroid medications are effective for short-term control of a flare-up, however they are not recommended for long-term use because of their significant side-effects.
- **Immunosuppressants** (such as 6-MP and azathioprine) may be recommended if your condition does not respond to other treatments. These medications suppress (reduce) the activity of the body's immune system to control inflammation, however, they also weaken the body's ability to fight infection. Immunosuppressants typically take 2 to 3 months to begin working.
- **Biologics** (such as infliximab, adalimumab and Golimumab) are powerful medications used for people with moderate-to-severe ulcerative colitis when other treatments have been unsuccessful. Biologics target and block the specific protein molecules causing inflammation in ulcerative colitis, yet they still allow the immune system to work and fight infections.

Diet and lifestyle changes

Although diet and stress do not cause ulcerative colitis, there may be times when changes in your lifestyle may help control your symptoms and lengthen the time between flare-ups. The following changes may help to ease your symptoms:

- Limit milk/dairy products. If you are lactose intolerant (cannot digest the sugar in milk), milk and dairy products can produce symptoms of excess gas and diarrhea.
- Restrict intake of certain high-fibre foods, such as nuts, seeds, and raw vegetables.
- Limit intake of caffeine, alcohol, carbonated drinks and fatty foods.
- Eat small, frequent meals, rather than large meals.
- Exercise regularly to promote movement of the colon and reduce stress.
- Minimize stress. Yoga, meditation and slow, relaxed breathing techniques can help people with ulcerative colitis manage stress.

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Surgery

About 10 to 15% of people with ulcerative colitis may eventually need surgery to treat their condition, if medical therapy is not successful or complications arise. Ulcerative colitis surgery usually involves removing the entire colon and rectum (proctocolectomy).



When the colon is completely removed, a small opening (stoma) is created in the lower abdomen and feces (digestive waste) are collected into a small bag worn on the outside of the body. For some people, a second operation (called a pouch procedure) can be performed. This operation creates a new rectum, which allows feces to collect inside the body and be expelled by normal passage through the anus. People with pouches often still pass 4-6 stools per day, but without blood or pain.

Symptomatic treatment

The symptoms of ulcerative colitis can be disruptive, debilitating and embarrassing. In addition to medication to control inflammation, your doctor may recommend additional products to help relieve your symptoms, including antibiotics (for fever), pain relievers (for abdominal pain), antidiarrheals (to control diarrhea) and iron supplements (for anemia). Talk to your doctor about which medications are safe for you to take.

Probiotics

Studies have found that, in some cases, probiotics may help to improve symptoms of ulcerative colitis. Probiotics are live microorganisms that, when taken in adequate amounts over sufficient time, may provide a health benefit. They are natural, 'healthy' bacteria that may help with digestion and offer protection from harmful bacteria in the intestines.

Probiotics are not medicine. They are available to purchase as capsules, tablets or powders, and can also be found in some fortified yogurts and fermented milk products. However, not all probiotics are the same. Although many products claim to have benefits, only two probiotics formulations – *E. coli* Nissle and VSL#3 – have been shown to be effective in ulcerative colitis.

Ask your doctor or pharmacist if one of these formulations may be right for you. It is important to take the probiotic in the dose and duration recommended by the manufacturer to achieve the best results.

How can I tell if my treatment is working?

For some people, ulcerative colitis symptoms will significantly improve within a short time after starting medication or making lifestyle and dietary changes. For others, finding relief from symptoms is a slow process and it may take longer for a definite improvement to be noticed. It is important for you and your doctor to work together to determine what triggers your symptoms and to find the right treatment to manage your symptoms effectively.

Are there any complications of ulcerative colitis?

There are some complications related to ulcerative colitis.

Possible complications include:

- Severe bleeding
- Dehydration
- Perforated colon (a hole in the colon)
- Kidney stones
- Osteoporosis (loss of bone strength)
- Toxic megacolon (severe abdominal swelling accompanied by a fever, rare)
- Liver disease (rare)

People with ulcerative colitis are also at increased risk of developing colon cancer. The risk of colon cancer is related to the length of time since you were diagnosed and how much of your colon is affected by inflammation. However, a regular examination by your doctor and colorectal cancer screening tests can help to reduce the risk of cancer and detect problems early.

ULCERATIVE COLITIS

Alarm symptoms

A change in your ulcerative colitis symptoms may mean that additional treatment is needed. Talk to your doctor immediately if you experience a new symptom, a change in your current symptoms or any of the following:

- An unusual amount of cankers or sores in your mouth
- Unexplained or unintentional weight loss
- Failure to gain weight (especially in children)
- Delayed puberty in teens
- Drainage of pus from, or severe pain near, the anus which is usually caused by an abscess.
- Anemia – this blood condition results in fatigue and weakness. It is usually caused by heavy blood loss or a lack of dietary iron
- Rectal bleeding
- Fever
- Change in bowel habits
- Eye redness / pain
- Severe joint pains
- Nausea / vomiting - inability to keep food / drink down

Living positively with ulcerative colitis

Ulcerative colitis is a chronic (long-term) condition with symptoms that can disappear and then flare up again throughout your life. Living with the unpredictable nature of ulcerative colitis can pose physical and emotional challenges that may seem overwhelming at times. However, there are several things that you can do to contribute to your health and well-being. Be informed, proactive, and involved in your care. By establishing a solid partnership

Stay **healthy** and **happy** by being **informed**, **proactive** and **involved**.

with your health care team, developing coping skills, and maintaining a positive outlook, it is possible to stay healthy and happy, despite living with ulcerative colitis.

Preparing for your health care professional appointment

Good communication with your doctor is an important part of effective management of a gastrointestinal disorder like ulcerative colitis. Before your appointment, take the time to keep a symptom journal that can help you and your doctor see patterns in your activities and identify specific triggers for your symptoms.

A **journal** can help your doctor **see patterns** to **identify triggers**.

Include the following information in your journal:

- Write down the symptoms that are bothering you and for how long you have had them.
- Write down key personal and medical information, including any recent changes or stressful events in your life.
- Make a list of the triggers (food, stress, activity) that seem to make your symptoms worse.
- Make a list of medications you are taking, including the conditions you take them for. Also note if any of your medications seem to affect your symptoms.
- Talk to your family members and find out if any relatives have been diagnosed with ulcerative colitis or another digestive disorder.
- Create a list of questions to ask your doctor during your appointment. Specifically, you may want to ask your doctor questions such as:
 - ~ What do you think is causing my symptoms?
 - ~ Are there other possible causes for my condition?
 - ~ What diagnostic tests do I need?
 - ~ Do these tests require any special preparation?
 - ~ What treatment approach do you recommend trying first?
 - ~ If the first treatment doesn't work, what will we try next?
 - ~ Are there any side effects associated with these treatments?

ULCERATIVE COLITIS

Learning more about ulcerative colitis.

The Canadian Digestive Health Foundation provides information, tools and support to help you take control of your digestive health with confidence and optimism. Visit www.CDHF.ca to learn more.

CDHF WebSeminars to help you better understand life with ulcerative colitis:

- **Living Positively with IBD**

Join CDHF President, Dr. Richard Fedorak, and Mr. Jeff Sheckter to learn about IBD: how it affects your body; treatment options; possible complications; and how to work with your doctor to get an accurate diagnosis and proper care so that you can live positively with IBD.

- **Understanding and Harnessing the Power of Probiotics**

Learn more about the specific digestive benefits of probiotics, including reducing the severity and duration of diarrhea, treating constipation, improving the symptoms of ulcerative colitis and preventing a relapse, counteracting lactose intolerance and more.

WebSeminars may be viewed at <http://www.cdhf.ca/resources/webinars.shtml>



CDHF educational videos to provide insights from people living with ulcerative colitis:

- **Growing Up with Ulcerative Colitis**
- **Ulcerative Colitis and Your Family**
- **Living with Ulcerative Colitis**
- **Conquering Ulcerative Colitis** featuring professional triathlete Jonathan Caron
- **Managing Ulcerative Colitis at Work**

CDHF App helps track information

The CDHF has developed a smart phone app for iPhone and Android called

Gi BodyGuard to help you quickly, easily and privately track and share your digestive symptoms with your physician.

Gi BodyGuard has a built-in symptom tracker (stool, pain, blood), food, fitness and medication trackers, a health history form and appointment/medication reminders. Using **Gi BodyGuard** is quick, easy and private.



As well, **Gi BodyGuard** lets you produce comprehensive reports so you can share important information with your physician during your next appointment. You can download **Gi BodyGuard** for free at:

<http://www.cdhf.ca/resources/Gibodyguard.shtml>

 The development of this fact sheet was made possible through an unrestricted educational grant from SHIRE.

Please note: The information contained in this fact sheet is not a substitute for medical care and the advice of your physician. There may be variations in treatment that your physician may recommend based on your individual facts and circumstances. Always consult with your physician when you have concerns about your health.

UNDERSTAND.

TAKE CONTROL.

LIVE BETTER.

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YES! I want to donate to the Canadian Digestive Health Foundation

Please accept my donation to support:

- Canadian Digestive Health Foundation Programs as needed
 Canadian Digestive Health Foundation Endowment Fund

My donation is:

- Personal In honour of In memory of
_____ (person's name)

- Yes, please send notification of my gift to:

Full name: _____

Email: _____

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Donate by Cheque:

- I have enclosed a cheque for \$ _____
 I have enclosed a blank cheque marked "VOID" and authorize the Canadian Digestive Health Foundation to deduct \$ _____ from my account on the 28th day of each month

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Donate by Credit Card:

I would like to make a donation using my credit card. Please charge my

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Name: _____

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City: _____ Prov: ____ PC: _____

- Please send me information about protecting and improving my digestive health.

Over 20 million Canadians suffer from digestive disorders every year. The Canadian Digestive Health Foundation believes this is unnecessary and unacceptable.

We reduce suffering and improve quality of life by empowering Canadians with trusted, up to date, science-based information about digestive health and disease.

As the Foundation of the Canadian Association of Gastroenterology, we work directly with leading physicians, scientists, and other health care professionals to help you understand and take control of your digestive health with confidence and optimism.

Through research and public education, we aim to:

 **REDUCE**
the incidence and prevalence of digestive disorders

 **IMPROVE**
understanding of digestive health issues

 **SUPPORT**
those suffering from digestive disorders

 **ENHANCE**
quality of life for those living with digestive disorders

Request for support

The Canadian Digestive Health Foundation is a national charity governed by a volunteer board of directors. We rely on donations from the public and the generosity of our partners to develop and deliver our programs. Please consider including our Foundation as one of your chosen charities.

Contact us/Donate to

Canadian Digestive Health Foundation

2525 Old Bronte Road

Oakville, ON L6M 4J2

Tel: 905.847.2002

info@CDHF.ca

or donate on line at www.CDHF.ca.