

Microscopic Colitis

What is microscopic colitis?

Microscopic colitis is an inflammation of the colon that a health care provider can see only with a microscope. Inflammation is the body's normal response to injury, irritation, or infection of tissues. Microscopic colitis is a type of inflammatory bowel disease—the general name for diseases that cause irritation and inflammation in the intestines.

The two types of microscopic colitis are collagenous colitis and lymphocytic colitis. Health care providers often use the term microscopic colitis to describe both types because their symptoms and treatments are the same. Some scientists believe that collagenous colitis and lymphocytic colitis may be different phases of the same condition rather than separate conditions.

In both types of microscopic colitis, an increase in the number of lymphocytes, a type of white blood cell, can be seen in the epithelium—the layer of cells that lines the colon. An increase in the number of white blood cells is a sign of inflammation. The two types of colitis affect the colon tissue in slightly different ways:

- **Lymphocytic colitis.** The number of lymphocytes is higher, and the tissues and lining of the colon are of normal thickness.
- **Collagenous colitis.** The layer of collagen, a threadlike protein, underneath the epithelium builds up and becomes thicker than normal.

When looking through a microscope, the health care provider may find variations in lymphocyte numbers and collagen thickness in different parts of the colon. These variations may indicate an overlap of the two types of microscopic colitis.

What causes microscopic colitis?

The exact cause of microscopic colitis is unknown. Several factors may play a role in causing microscopic colitis. However, most scientists believe that microscopic colitis results from an abnormal immune-system response to bacteria that normally live in the colon. Scientists have proposed other causes, including

- autoimmune diseases
- medications
- infections
- genetic factors
- bile acid malabsorption

Autoimmune Diseases

Sometimes people with microscopic colitis also have autoimmune diseases—disorders in which the body's immune system attacks the body's own cells and organs. Autoimmune diseases associated with microscopic colitis include

- [celiac disease](#)—a condition in which people cannot tolerate gluten because it damages the lining of the small intestine and prevents absorption of nutrients. Gluten is a protein found in wheat, rye, and barley.
- thyroid diseases such as
 - [Hashimoto's disease](#)—a form of chronic, or long lasting, inflammation of the thyroid.
 - [Graves' disease](#)—a disease that causes hyperthyroidism. Hyperthyroidism is a disorder that occurs when the thyroid gland makes more thyroid hormone than the body needs.
- rheumatoid arthritis—a disease that causes pain, swelling, stiffness, and loss of function in the joints when the immune system attacks the membrane lining the joints.
- psoriasis—a skin disease that causes thick, red skin with flaky, silver-white patches called scales.

Medications

Researchers have not found that medications cause microscopic colitis. However, they have found links between microscopic colitis and certain medications, most commonly

- nonsteroidal anti-inflammatory drugs such as aspirin, ibuprofen, and naproxen
- lansoprazole (Prevacid)
- acarbose (Prandase, Precose)
- ranitidine (Tritec, Zantac)
- sertraline (Zoloft)
- ticlopidine (Ticlid)

Other medications linked to microscopic colitis include

- carbamazepine
- clozapine (Clozaril, FazaClo)
- dexlansoprazole (Kapidex, Dexilant)
- entacapone (Comtan)
- esomeprazole (Nexium)
- flutamide (Eulexin)
- lisinopril (Prinivil, Zestril)
- omeprazole (Prilosec)
- pantoprazole (Protonix)
- paroxetine (Paxil, Pexeva)
- rabeprazole (AcipHex)
- simvastatin (Zocor)
- vinorelbine (Navelbine)

Infections

Bacteria. Some people get microscopic colitis after an infection with certain harmful bacteria. Harmful bacteria may produce toxins that irritate the lining of the colon.

Viruses. Some scientists believe that viral infections that cause inflammation in the GI tract may play a role in causing microscopic colitis.

Genetic Factors

Some scientists believe that genetic factors may play a role in microscopic colitis. Although researchers have not yet found a gene unique to microscopic colitis.

Who is more likely to get microscopic colitis?

People are more likely to get microscopic colitis if they

- are 50 years of age or older
- are female
- have an autoimmune disease
- smoke cigarettes, especially people ages 16 to 44¹
- use medications that have been linked to the disease

What are the signs and symptoms of microscopic colitis?

The most common symptom of microscopic colitis is chronic, watery, nonbloody diarrhea. Episodes of diarrhea can last for weeks, months, or even years. However, many people with microscopic colitis may have long periods without diarrhea. Other signs and symptoms of microscopic colitis can include

- a strong urgency to have a bowel movement or a need to go to the bathroom quickly
- pain, cramping, or bloating in the abdomen—the area between the chest and the hips—that is usually mild
- weight loss
- [fecal incontinence](#)—accidental passing of stool or fluid from the rectum—especially at night
- nausea
- dehydration—a condition that results from not taking in enough liquids to replace fluids lost through diarrhea

The symptoms of microscopic colitis can come and go frequently. Sometimes, the symptoms go away without treatment.

How is microscopic colitis diagnosed?

A pathologist—a doctor who specializes in examining tissues to diagnose diseases—diagnoses microscopic colitis based on the findings of multiple biopsies taken throughout the colon. Biopsy is a procedure that involves taking small pieces of tissue for examination with a microscope. The pathologist examines the colon tissue samples in a lab. Many patients can have both lymphocytic colitis and collagenous colitis in different parts of their colon.

How is microscopic colitis treated?

Treatment depends on the severity of symptoms. The gastroenterologist will

- review the medications the person is taking
- make recommendations to change or stop certain medications
- recommend that the person quit smoking

The gastroenterologist may prescribe medications to help control symptoms. Medications are almost always effective in treating microscopic colitis. The gastroenterologist may recommend eating, diet, and nutrition changes. In rare cases, the gastroenterologist may recommend surgery.

Medications

The gastroenterologist may prescribe one or more of the following:

- antidiarrheal medications such as bismuth subsalicylate (Kaopectate, Pepto-Bismol), diphenoxylate/atropine (Lomotil), and loperamide
- corticosteroids such as budesonide (Entocort) and prednisone
- anti-inflammatory medications such as mesalamine and sulfasalazine (Azulfidine)
- cholestyramine resin (Locholest, Questran)—a medication that blocks bile acids
- antibiotics such as metronidazole (Flagyl) and erythromycin
- immunomodulators such as mercaptopurine (Purinethol), azathioprine (Azasan, Imuran), and methotrexate (Rheumatrex, Trexall)
- anti-TNF therapies such as infliximab (Remicade) and adalimumab (Humira)

Corticosteroids are medications that decrease inflammation and reduce the activity of the immune system. These medications can have many side effects. Scientists have shown that budesonide is safer, with fewer side effects, than prednisone. Most health care providers consider budesonide the best medication for treating microscopic colitis.

Patients with microscopic colitis generally achieve relief through treatment with medications, although relapses can occur. Some patients may need long-term treatment if they continue to have relapses.

Eating, Diet, and Nutrition

To help reduce symptoms, a health care provider may recommend the following dietary changes:

- avoid foods and drinks that contain caffeine or artificial sugars
- drink plenty of liquids to prevent dehydration during episodes of diarrhea
- eat a milk-free diet if the person is also [lactose intolerant](#)
- eat a gluten-free diet

Does microscopic colitis increase the risk of colon cancer?

No. Unlike the other inflammatory bowel diseases, such as Crohn's disease and ulcerative colitis, microscopic colitis does not increase a person's risk of getting colon cancer.

References

[1] Microscopic colitis. Mayo Clinic website. www.mayoclinic.org . Updated January 30, 2013. Accessed February 24, 2014.

June 2014

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The NIDDK would like to thank:

Theodore M. Bayless, M.D., the Johns Hopkins Hospital; William J. Tremaine, M.D., the Mayo Clinic; Adam Cheifetz, M.D., Beth Israel Deaconess Medical Center and Harvard Medical School