Cleveland Clinic

Microscopic Colitis

What is microscopic colitis?

Microscopic colitis (MC) is one of the lesser-known types of inflammatory bowel disease (IBD). These are chronic conditions of inflammation inside your bowels (intestines). "Colitis" means inflammation of your colon (large intestine) — specifically, the inner lining. Many things can cause temporary colitis, but MC causes it on an ongoing basis. It's called "microscopic" because it can only be seen under a microscope.

If you have microscopic colitis, the cells in your intestinal lining are irritated. The result is most commonly frequent, watery diarrhea. As with all chronic conditions, microscopic colitis may come and go. It may flare up in reaction to certain triggers, then subside on its own, and then return. While it's a lifelong condition, it's usually manageable with medical treatments.

Who does microscopic colitis affect?

Anyone can get it, but it's more common in older people and people who were assigned female at birth. It's also more common in people who smoke, and in people who have certain autoimmune diseases, especially celiac disease. Microscopic colitis has traditionally been thought to be less common than other inflammatory bowel diseases. But because it requires a tissue sample to diagnose, it's likely underestimated.

How serious is microscopic colitis?

It's not as severe as other types of IBD, and not considered a life-threatening disease. Severe, unrelenting diarrhea could lead to dehydration, weight loss or even malnutrition, but microscopic colitis usually doesn't manifest this way. It tends to come and go, and it can be managed with medication. It can affect your quality of life, however, with uncomfortable symptoms haunting your every meal.

What are the different types of microscopic colitis?

Healthcare providers can only diagnose microscopic colitis by looking at a sample of your intestinal mucosa under a microscope. When they do, they will recognize certain distinct features in the cells. Different features suggest different subtypes of the disease. There are at least two recognized subtypes, and several others have been suggested. The two recognized types are:

- **Collagenous colitis**. Collagen and elastin make up the connective tissue of your intestinal lining (lamina propria). With this type of MC, collagen bands in the lining of your colon are abnormally thickened. This thickened connective tissue is similar to other connective tissue diseases in which collagen and elastin become inflamed, such as rheumatoid arthritis. These autoimmune conditions are often seen in people with microscopic colitis.
- **Lymphocytic colitis**. In this version, the surface layer of your intestinal mucosa (the epithelium) has an abnormally high density of lymphocytes. Lymphocytes are a type of white blood cell. White blood cells function as part of your immune system to protect against infection. A high white blood cell count often accompanies inflammation when the immune system is involved.

These two variations of microscopic colitis come with the same symptoms, and they're treated in the same way. Their differences only appear under the microscope. Some scientists believe they are actually just two different stages of the same condition. Occasionally, features of both types are seen together in one person. This has been called "incomplete microscopic colitis."

In addition, some believe that mastocytic enterocolitis should be included as a type of microscopic colitis. It shares many similarities, although "enterocolitis" means that it affects the small intestine as well as the colon. "Mastocytic" means that it features an abnormally high density of mast cells in the intestinal mucosa. Mast cells are another kind of immune cell.

Symptoms and Causes

What are the symptoms of microscopic colitis?

The trademark symptom of microscopic colitis is chronic, watery diarrhea. In the typical profile, diarrhea occurs frequently — about five to 10 times a day, though some people may have it more or less. There have been rare cases reported of people who had microscopic colitis but had no diarrhea or had constipation instead. In these cases, microscopic colitis was found accidentally while looking for something else.

Common secondary symptoms include:

- Abdominal pain and cramping.
- Abdominal distension and bloating.
- Urgency to poop and trouble holding poop in.
- Noisy digestive system.
- Gluten sensitivity.
- Fatigue.

Severe symptoms can include:

- Dehydration.
- Nausea and vomiting.
- Weight loss.

Some people also report:

- Muscle cramps or muscle pain.
- Joint pain and stiffness.
- Headaches or migraines.
- Mouth sores.
- Skin rashes.
- Acid reflux.
- Swollen lymph nodes.
- Thyroid problems.
- Neurological problems (ataxia).

What causes microscopic colitis?

Scientists aren't sure, but several factors may be involved, including:

- Exposure to certain bacteria, bacterial toxins and viruses.
- A mistake of the immune system (autoimmune response).
- Genetics.

Some research suggests that certain medications may contribute to the problem, including:

- Nonsteroidal anti-inflammatory drugs (NSAIDs).
- Proton pump inhibitors (PPIs).
- Selective serotonin reuptake inhibitors (SSRIs).
- Hormone replacement therapy (HRT).
- Beta blockers.
- Statins.

Diagnosis and Tests

How is microscopic colitis diagnosed?

Microscopic colitis is usually diagnosed by a gastroenterologist, a specialist in gastrointestinal diseases. They'll begin by asking you about your medical history and your current medications. They may order various lab tests to check for possible causes of your condition, including blood tests, stool tests and imaging tests. If these don't turn up anything, your doctor will proceed with a colonoscopy and biopsy.

During the colonoscopy, your doctor will view the inside of your colon through a long, flexible instrument called a colonoscope. The colonoscope will be inserted into your colon through your rectum while you are sedated. Your doctor can pass tools through the colonoscope to take a tissue sample from your intestinal lining to examine under the microscope. This is how they'll find microscopic colitis.

Management and Treatment

How is microscopic colitis treated?

Treatment can vary depending on your symptoms and how severe they are. They range from dietary and lifestyle changes to over-the-counter and prescription medications. For some

people, symptoms flare up and then go away on their own. Some people are able to manage their symptoms well with dietary changes alone, while others may need to use medication intermittently or more frequently.

Common medications include:

- **Bulking agents**, such as psyllium, to make your poop more solid and slow down its transit time.
- **Anti-diarrheals** that slow down your bowel contractions, such as loperamide or diphenoxylate.
- **Bismuth Subsalicylate** (Pepto Bismol®) for diarrhea, acid reflux, nausea and indigestion.
- **Budesonide**, a corticosteroid that's absorbed in your colon, where it reduces inflammation.
- **Mesalamine**, a medication designed to treat ulcerative colitis, for inflammation and pain.
- **Bile acid sequestrants** (colesevelam, colestipol), if you have bile acid malabsorption.

If you don't respond to the above medications, and if your doctor believes there is an autoimmune factor involved, they might suggest additional medications to target your immune response, such as:

- Immunosuppressants.
- TNF inhibitors (adalimumab, infliximab).
- Cromolyn sodium to target mast cells (mastocytic enterocolitis).
- Low dose naltrexone.

Additional recommendations from your doctor may include:

- Adjusting your preexisting medications.
- Quitting smoking.
- Identifying your specific food intolerances.

Outlook / Prognosis

Does microscopic colitis ever go away?

Not forever, but it may go away for a while, sometimes for a long while. When it does, it's called being in remission. Remission might last for months or years. However, as with any chronic condition, certain triggers can cause it to return. You can minimize these flare-ups by learning to recognize your triggers.

How long will my microscopic colitis flare up last?

It's different for everyone, but flare-ups typically last for days to weeks. Many people find that they can reduce the length and severity of their flare ups by avoiding certain triggers, such as specific foods or chemicals, and medicating when necessary. Talk to your healthcare provider when your colitis is flaring.

What is the best diet for managing microscopic colitis?

There is no microscopic colitis diet per se, but diet can play a role in managing your symptoms by reducing the foods that trigger them and promoting anti-inflammatory foods. Your trigger foods will be specific to you, however, and identifying them can take some trial and error. Your doctor may suggest:

Eliminating common triggers

Some of the most common trigger foods for microscopic colitis include:

- Alcohol.
- Caffeine.
- Gluten.
- Dairy.
- Sugar.
- Artificial sweeteners.

Low fat and low fiber

To manage flare-ups, some healthcare providers recommend a gastrointestinal soft diet, which is made up of low fat and low fiber foods. Reducing fat and fiber in your diet gives your digestive system less work to do. There may still be particular foods in the diet that trigger you, though.

Elimination diet

One way to isolate trigger foods is to try an elimination diet, such as the low-FODMAP diet. This short-term diet eliminates certain classes of foods and then reintroduces them in a systematic way, to find out which ones you are sensitive to. A registered dietician guides you through the process.

Anti-inflammatory diet

Certain foods, such as polyunsaturated fats, have been shown to reduce inflammation. The Mediterranean diet is a good example of a diet that promotes anti-inflammatory foods. Turmeric is another well-known anti-inflammatory agent that you can use in food.

What is the best probiotic to take for microscopic colitis?

Probiotics were previously recommended to help treat microscopic colitis, but current guidelines don't recommend them. More research is needed before specific probiotics can be recommended.

A note from the Clinic

Microscopic colitis is still not well understood. Of all the inflammatory bowel diseases, it’s been the least often recognized or diagnosed, though scientists now suspect it may be just as common as the others. It’s also had the least targeted research, and there’s currently no targeted medication for it. Fortunately, the treatments we have often work to manage it. It may take some trial and error, but the right combination of medication and diet can help you manage your symptoms when they occur.