

July 1, 2016
Happy 4th of July!



Is Microscopic Colitis Affected by the Weather?

Many MC patients have found that their symptoms seem to flare at certain times during the year. In many cases these flares may coincide with the seasons or a similar cyclic pattern. Sometimes unusual weather patterns or events seem to have an effect. Of course there is no mention of this possible connection in the medical description of the disease. But clinical symptoms speak louder than medical descriptions, at least they speak louder from a patient's perspective because patients may have to deal with symptoms on a daily basis when the disease deviates from the medical description.

For years many sufferers have wondered if



Physicians Share a Surprising Number of Traits With MC Patients

In a cruel twist of irony, a surprising percentage of physicians begin their career in dire need of healing themselves. While it's probably true that a few physicians may decide to study medicine in order to better understand and possibly resolve their own preexisting health issues, this is probably not a common priority. Unfortunately the very process of qualifying for a career in medicine imposes health hazards of its own.

Recently-published research focused on bowel disease among med school students. It was found that the prevalence of bowel disease tends to increase as students progress through med school. One study found that by the time they get to their first year of internship, approximately 18 % of medical students have developed irritable bowel syndrome (IBS) symptoms sufficient to meet the official ROME-III criteria.¹ This is over 60 % higher than the prevalence found in the general population. A study of med school students in Peru found that compared with first-year students, those who were in their fourth year were 2.5 times as likely to meet the diagnostic criteria of IBS.

this perceived association is real, or if it's merely a coincidence. Searches of the medical literature don't seem to shed any light on this subject. But the epidemiological evidence reported by discussion board members continues to accumulate and it is becoming increasingly apparent that the disease seems to be affected not only by seasonal changes, but possibly by other influences in patients' environments, such as hot weather, physical exercise, or even a hot shower.

It doesn't take much of a stretch of the imagination to recognize that if stress of all types can have a strong effect on the disease, then surely other influences in one's environment may well play a role in the development of symptoms. Mast cell issues such as mast cell activation disorder (MCAD) and high histamine foods in the diet can act independently or together to make life miserable for some patients. Everything may be going well when seemingly overnight, something upsets the applecart and a symptom flare occurs.

Pollen season seems to be a common thread for many patients. And because pollen causes a mast cell reaction (the release of large amounts of histamine) in susceptible patients, this effect can be magnified by histamine-containing foods in the diet, or foods (or medications) that are known to trigger the release of histamines.

To further complicate matters, most people in the general population are magnesium deficient and this problem is made much worse for MC patients by the malabsorption problems associated with IBDs. The body uses histidine decarboxylase enzyme to convert histidine into histamine. Histamine is

And while many of us recognize that IBS is not actually a disease, but rather a collection of symptoms in patients who do not meet the diagnostic criteria for any of the known (officially medically-described) bowel diseases, this obviously does not bode well for the future health of those individuals. In most cases, "IBS" is a default diagnosis handed down because the correct diagnosis was overlooked during the workup, or because the symptoms are associated with the early stages of an inflammatory bowel disease (IBD) prior to the stage of development at which the earliest diagnostic criteria can be met. And despite the fact that "IBS" is not actually a disease, in this article the term will be applied to the pattern of symptoms customarily claimed to meet the medical definition of "IBS" by most gastroenterologists.

Obviously the relatively high level of both physical and psychological stress that prevails in medical school is bound to have an adverse effect on health. Sleep deprivation and demanding schedules are part of the routine. In addition to stress, a sedentary lifestyle was found to be a risk factor for the development of IBS. In fact, the researchers found that either stress or a sedentary lifestyle was capable of tripling the risk of developing IBS.

But the health problems of physicians and medical school students go much deeper than gastrointestinal issues. An article published late last year in the Journal of the American Medical Association (JAMA) showed that before they complete their training, one of every three medical students suffers from depression, roughly triple the rate found in the general population.² Compared with the general population, physicians even have a higher suicide rate.³ It's estimated that approximately 400 physicians commit suicide each year. When this number is associated with the average number of caseloads, it's possible to project that roughly a million patients in the U. S. may lose their physicians to suicide each and every year. And after accidents, suicides are the second highest cause of death among medical students.⁴

In fact, the atmosphere in the medical community has become so toxic that one writer for the Daily Beast put it this way:⁵

Simply put, being a doctor has become a miserable and humiliating undertaking. Indeed, many doctors feel that America has declared war on physicians- and both physicians and patients are the losers.

needed for certain normal body functions such as signaling to the parietal cells in the stomach to produce more gastric acid in anticipation of the digestion of a meal that is being eaten.

But research shows that a magnesium deficiency increases the action of histidine decarboxylase enzyme, which increases the production of histamine from histidine.¹ To make matters worse, a magnesium deficiency has also been shown to reduce the activity of diamine oxidase (DAO) enzyme, (Nishio, Ishiguro, & Miyao, 1987). DAO is thought to be the main mechanism by which the body eliminates excess amounts of histamine. Without adequate amounts of DAO, histamine tends to build up, causing all sorts of problems that may prove to be persistent because they are somewhat self-perpetuating without proper intervention.

And the resulting clinical symptoms can be either some of the classic allergy symptoms (such as a runny nose, watery eyes, throat congestion, itchy bumps or rash anywhere on the skin, or sores or itching in the mouth), or they may be digestive system symptoms (such as gas, bloating, nausea, and/or diarrhea), or a combination of any of these symptoms may occur. Microscopic colitis is truly a complex disease and it will be many years before it is likely to be well understood.

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Not surprisingly, many doctors want out. Medical students opt for high-paying specialties so they can retire as quickly as possible. Physician MBA programs-that promise doctors a way into management-are flourishing. The website known as the Drop-Out-Club-which hooks doctors up with jobs at hedge funds and venture capital firms-has a solid following. In fact, physicians are so bummed out that 9 out of 10 doctors would discourage anyone from entering the profession.

Interestingly, there appear to be some similarities between common personality traits of physicians and MC patients. Both groups tend to be perfectionists and overachievers who are very uncomfortable if they are not in control of their situation. And just as MC patients tend to lose control of certain aspects of their life because of their disease symptoms, physicians are unable to control many of the aspects of their life during their medical school and residency years. This often leads to self-blame when unexpected outcomes occur. This type of environment can cause a sense of loneliness, and the heavy schedules lead to chronic fatigue. As a result, the rate of depression among medical internists and residents is slightly over four times the depression rate of adults in the general population.⁶

Virtually every MC patient is familiar with the sense of loneliness and the fatigue associated with MC. And depression has always been known to be a common problem linked with the disease. And yes, suicide rates for IBD patients are also higher than the general population.⁷ And then there are the digestive system issues. So it shouldn't seem surprising that MC patients and physicians have so many common bonds. What does seem surprising is the fact that no one has previously recognized the existence of this commonality.

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Foundation News

The Microscopic Colitis Foundation is very excited to celebrate its first year and many accomplishments. Our mission is to raise public awareness of microscopic colitis, to encourage research, and to inform and support patients, caregivers, and medical professionals about the management of this condition. To date, along with the extensive informative website and social media pages, we have written downloadable guidelines for the medical treatment of microscopic colitis, diet, and controlling GERD without the use of drugs, published a quarterly newsletter with research-based articles, and created a Restroom Access Card in support of the Restroom Act otherwise known as Ally's Law. The foundation sincerely thanks you for your continued support and looks to continue serving the microscopic colitis community.



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jama.jamanetwork.com/article.aspx?articleid=2474424

Reference 3 . Glaser, G. (2015, March 23). American doctors are killing themselves and no one is talking about it. The Daily Beast. [Web log message]. Retrieved from <http://www.thedailybeast.com/articles/2016/05/19/lena-dunham-s-new-book-is-an-fu-to-her-critic-Ås.html>

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Reference 5 . Gradus, J. L., Qin, P., Lincoln, A. K., Miller, M., Lawler, E., Sørensen, H. T., & Lash, T. L. (2010). Inflammatory bowel disease and completed suicide in Danish adults. *Inflammatory Bowel Diseases*, 16(12), 2158-61. Retrieved from <http://www.pubfacts.com/detail/20848460/Inflammatory-bowel-disease-and-completed-suicide-in-Danish-adults>.

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prevent them from being reabsorbed into the blood. The liver then produces more bile to replace the bile that has been lost. Because the body needs cholesterol to make bile, the liver uses up the cholesterol in the blood, which reduces the amount of LDL cholesterol circulating in the blood. ("Bile Acid Sequestrants for High Cholesterol," n.d.)

In researching sources for this article, the writer discovered a heart wrenching interview of a lady named Judith Fulton. She suffered from diarrhea for 48 years, visited several physicians and never received a diagnosis beyond IBS. After years of research, Ms. Fulton discovered BAM and began taking Questran. She has regained her health after decades of distress. Since Judith did not mention being tested for MC, the writer suspects that she might also have this condition. (Waters/Daily Mail, 2012)

There are a few precautions one should take when using bile acid sequestrants. This medication will not work unless it is taken properly. Always swallow one tablet at a time. Do not crush or chew tablets. Take tablets with plenty of water. If one takes other medications including vitamins, minerals, anti-oxidants, or prescriptions, these must be taken at least one hour before or four hours after taking bile acid sequestrants. ("Bile Acid Sequestrants for High Cholesterol," n.d.)

While bile acid sequestrants do not have the same side effects of statin drugs, they can deplete Vitamin A, Vitamin D, Vitamin E, and Vitamin K. Persky in the book *Microscopic Colitis* provides excellent information regarding some of these vitamins. Re: vitamin A, (Persky, p. 126, 2012) recommends Beta - Carotene VS Retinol. Persky also recommends maintaining the Vitamin D level "in the upper part of the normal range." (Persky, p. 213, 2012) Vitamin E works best if it is taken it with food. It is used for a number of conditions and the requirement for this vitamin increases with age. Vitamin K1 is needed to help clotting. Mercola's article (n.d.) : "10 Important Facts About Vitamin K" provides information about this little known vitamin. In addition to the depletion of Vitamin A, D, E and K, another source, ("Cholestyramine" University of Michigan Health System) cites animal studies that show depletion of Calcium and Zinc in those who take Cholestyramine. This source also lists a weak relationship between this drug and lowered Beta Carotene levels. The information for Patients section of ("Colestipol - FDA prescribing information, side effects and uses," n.d.) provides a summation of precautions for taking this medication, side effects and uses," n.d.) This document also summarizes precautions for taking this medication.

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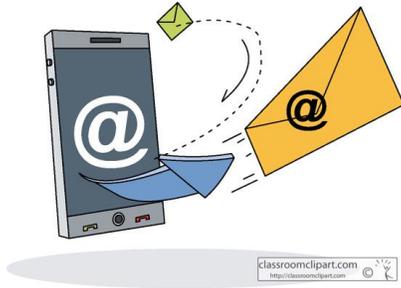
The Microscopic Colitis Foundation is a public charity classified by the IRS as a 501(c)(3) organization. All monetary donations to the organization are tax deductible to the maximum extent allowed by law.

To conclude, this author would like to add some personal comments. Since age 20, I have experienced the symptoms of MC (44 years). I was finally diagnosed with this condition, nine years ago. Unlike many with MC, I do not lose weight, even when the disease is in the full-blown stage. I have always had a high LDL cholesterol level even though I eat healthy foods and only those to which I do not have a food sensitivity. I rarely eat out. Everything is cooked from scratch. I have been on the Budesonide program on two occasions within the last three years. Both times, I tapered down the dosage during a six month period. I am fortunate to have a knowledgeable gastroenterologist. At the end of my second Budesonide taper period, he decided to add Colestipol to my treatment plan. His reasoning was: "Most of my microscopic colitis patients benefit from this." It has taken several months for Colestipol to start working. However, adding bile acid sequestrants has been a game changer in my life. I hope it will also help others with MC.

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Some Personal Insight on Magnesium

by Wayne Persky

In order to avoid any misunderstandings, I will point out right off the bat that I am not a medical professional, and this article is a combination of research proven information, my personal experiences, and my interpretations of those experiences, supported by medical lab test results where appropriate.

Magnesium deficiency is very common these days. In fact, many authorities insist that most people in the general population of developed countries are magnesium deficient. There are various reasons why this problem exists. Many health authorities tend to blame the problem on depleted soils, pointing out that centuries of farming and overuse have reduced the availability of many minerals that were once abundant in most soils. And surely this is part of the problem, but in my experience other factors appear to be far more

important.

Inflammatory bowel disease (IBD) patients, including microscopic colitis (MC) patients of course, have a much higher risk of magnesium deficiency than people in the general population, so that magnesium deficiency may be almost a certainty for anyone who has an IBD. Not only do IBDs deplete magnesium, but the most popular class of medications used to treat IBDs, corticosteroids, are notorious for depleting magnesium. And most of the complications that sometimes occur with IBDs, such as GERD for example, are typically treated with medications that deplete magnesium, such as PPIs or antacids.

Most people barely get enough magnesium in their diet to begin with. If that were not true then surely most people would not have a magnesium deficiency. So precious few of us can stand to regularly use anything in our diet, including medications, that tend to deplete magnesium, without developing a magnesium deficiency. The problem is that when a diet barely supplies enough magnesium to begin with, any issues that deplete magnesium add to a slowly-growing deficit, until eventually the deficit becomes so great that the body no longer has enough magnesium reserves to allow it to perform vital functions normally and symptoms begin to appear. This typically doesn't happen overnight. It appears to develop over a period of years in most cases. But in some situations, such as with extended use of certain medications, a magnesium deficiency can develop in a matter of months or possibly even weeks, especially when magnesium reserves are not optimal when the treatment is initiated.

In my own case, my deficiency appears to have slowly developed over decades. Looking back, I can see symptoms that I didn't recognize as being associated with magnesium deficiency at the time. For all I know I may have been magnesium deficient all my life because one of the symptoms of magnesium deficiency is constipation, and I can remember having that symptom all the way back to when I was roughly 4 or 5 years old. But my deficiency finally became severe enough that it could no longer be ignored when a series of antibiotic treatment regimens for dental work obviously depleted what was left of my meager reserves of magnesium and triggered a collection of severe symptoms. But my doctors failed to recognize that the symptoms were associated with magnesium deficiency. And I failed to properly identify the problem because I was already taking a magnesium supplement. Because I was taking a supplement, my lab tests typically showed my magnesium blood level to

be normal. So much for the blood tests.

But obviously I was not taking enough magnesium to keep up with my needs. My magnesium reserves finally dwindled away and my symptoms finally became so severe that I went to the emergency room at the local hospital, and after a series of tests were run, the doctors there even ignored the flag that the lab had placed beside my low magnesium test result. They told me that my test results were fine and there didn't appear to be anything wrong. Fortunately a couple of days later I logged onto my account at the hospital and reviewed my test results and noticed the flagged magnesium result. That discovery marked the end of my magnesium deficiency.

My point in including the details of this experience is to highlight the fact that we absolutely cannot rely on our doctors to tell us that we have a magnesium deficiency. The blood tests they use will consistently show normal results until there is virtually no magnesium left in one's body. Nor can we rely on them to suggest that we should be taking a magnesium supplement if we're taking a medication that depletes magnesium. Despite decades of magnesium deficiency, I have never been told by a doctor that I should take a magnesium supplement. That said, I'm aware that there are doctors who do indeed recommend a magnesium supplement to patients in certain situations, but this seems to be somewhat rare, unfortunately.

In general, magnesium is rather poorly absorbed, and some types are much less likely to be absorbed than others. Of the types commonly available, magnesium oxide is the worst and chelated magnesium (magnesium glycinate) is generally considered by many to be the best choice. Any magnesium that is not absorbed remains in the gut, and some forms are readily converted into a laxative. Magnesium oxide plus water for example, forms magnesium hydroxide, commonly known as Milk of Magnesia, one of the oldest laxatives on the market. The best way to prevent magnesium supplements from becoming a laxative is to use a form that is known to have good absorption characteristics.

The more magnesium supplement we take at any given time, the lower the percentage that we will be able to absorb, so it helps to scatter the doses out over the day. Taking magnesium after meals is a good time for example, unless this coincides with taking certain magnesium depleting medications such as cholestyramine. In my case, I take the largest dose of magnesium after breakfast because last year when I

was regularly running out of magnesium, I would wake up in the wee hours of the morning with major symptoms, presumably because that was the time of day by which my body had used up all of the magnesium in the previous day's diet plus any available reserves. Magnesium reserves are stored in muscle cells and this is why leg and foot cramps tend to show up during the night, after the body pulls magnesium out of the reserves stored there. Because of the time span following the last meal of the day, if someone is going to run out of magnesium, even for normal people it's likely to happen before breakfast. So that's why I take most of my magnesium supplement after eating breakfast.

Coffee depletes magnesium. I drink 2 cups of coffee about mid-morning. A few months or so ago I read a research report about how much healthier one can become by drinking 3 cups or more per day, so I tried drinking 3 cups of coffee for a while. But in addition to the fact that coffee depletes magnesium, my 23andme results show that I metabolize caffeine very slowly. So after a few weeks or so I was beginning to have some magnesium deficiency symptoms again. I cut back to 2 cups and now everything seems to be operating smoothly. My point is, and this is very important - how much magnesium we need depends on how many magnesium depleting foods we have in our diet and how many magnesium depleting medications we are taking (and there are many).

I take at least 500 mg of magnesium, mostly in the form of magnesium glycinate. But your needs may differ. If you're not drinking coffee for example, you may need less. If you're taking a corticosteroid or some other magnesium depleting drug however, you may need more. My recommendation (and remember that this is strictly my unprofessional opinion) is to take at least the official recommended daily allowance (RDA). Why? Because published research shows that taking a daily magnesium supplement that meets or exceeds the RDA cuts one's risk of developing pancreatic cancer in half.¹ You read that right. In other words, the people in the research study who did not take a magnesium supplement had approximately twice the risk of developing pancreatic cancer compared with those who took the full RDA of magnesium supplement. This held true regardless of how much magnesium was in the diet of those who did not take a magnesium supplement. Taking a magnesium supplement that was less than the RDA provided a proportional fraction of the risk reduction compared with taking a full RDA.

Remember, our ancestors who lived in paleolithic times

when our digestive and immune systems were evolving didn't drink coffee or take antibiotics or any of the other magnesium depleting medications. That's probably the main reason why magnesium deficiencies are so widespread these days. There almost surely are some minor to moderate differences in the mineral content of many soils these days compared with paleo times, but I'm convinced that's not the main reason why so many people are deficient in magnesium. It's everything else we're putting into our bodies (things that didn't exist in paleo times) that's stealing our magnesium.

And it seems that everyone has high blood pressure (BP) these days. I used to have occasional episodes with blood pressure excursions that occurred somewhat regularly over the years. Occasionally pressures would reach worrisome levels. Some of these episodes seemed to be seasonal, but they would come and go at other times for no obvious reason. One of my doctors described it as "essential hypertension".

Now that my magnesium deficiency is gone, so are the blood pressure excursions. 6 years ago I was prescribed 10 mg of lisinopril (along with some other medications) to lower my blood pressure after I experienced what the ER doctors decided was a second transient ischemic attack (TIA). They couldn't confirm a TIA, but they couldn't rule it out either, so I've continued to take the medication, just in case they were right. But these days I often have to skip the lisinopril or my BP will be too low (or at least lower than I consider to be appropriate). Yesterday, for example (I'm writing this on May 22, 2016), my BP was 90/52, so I skipped the lisinopril last night. Today when I checked my BP it was 98/60. IMO magnesium deficiency is overlooked as the cause of many, many medical/health issues.

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