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How Much Fiber Do Humans Actually Need in Their Diet? IBD Patients Are Much Better Off with Minimal Amounts



Conventional medical opinion claims that dietary fiber is beneficial for virtually everyone, including inflammatory bowel disease (IBD) patients, and consequently, it would be difficult to find a doctor who does not recommend fiber for all their patients, except for those patients who have had certain procedures, such as an ileostomy. Yet the Microscopic Colitis Foundation, and the discussion and support forum associated with our website, have always recommended that microscopic colitis (MC) patients should minimize fiber in their diets, especially while they're attempting to put the disease into remission. Hopefully, the medical profession will soon reverse their long-held position, and join us in recommending against dietary fiber for IBD patients.

Medical Researchers Discover That Fiber Is Bad for IBD Patients.

Presumably, in a long overdue response to IBD patients' complaints, a few researchers decided to investigate the use of fiber by IBD patients, and they managed to make a game-changing discovery — fiber is not beneficial for IBD patients (Armstrong et al., 2022).¹ The conclusion stated by the original research article appears to be somewhat misleading, and understates the magnitude of the problem.

"While fibers are typically beneficial in individuals with normal microbial fermentative potential, some dietary fibers have detrimental effects in select patients with active IBD who lack fermentative microbe activities."

Although that conclusion may be accurate for this particular research project, it's unfortunate that this statement gives the impression that only a few individuals who happen to have a shortage of a certain type of gut bacteria, will experience adverse effects due to a certain type of fiber in their diet. As far as this problem is concerned, that statement is rather misleading, because as most of us are well aware, most MC patients cannot tolerate significant amounts of fiber

in their diet. That implies that this problem probably applies to most IBD patients, since all IBD's are associated with intestinal inflammation.

MC patients have been aware of this problem for at least a couple of decades.

For those of us who have active MC symptoms, virtually all of us have a disrupted gut bacteria population, due to our compromised digestive abilities, and significant amounts of fiber in our diet, in any form, are contraindicated because of the additional digestive problems that fiber tends to cause. Epidemiological evidence that can be found in the archives of our discussion forum shows that the vast majority of us who have MC, cannot tolerate significant amounts of fiber in our diet. The problem is not exclusive to just a few of us.

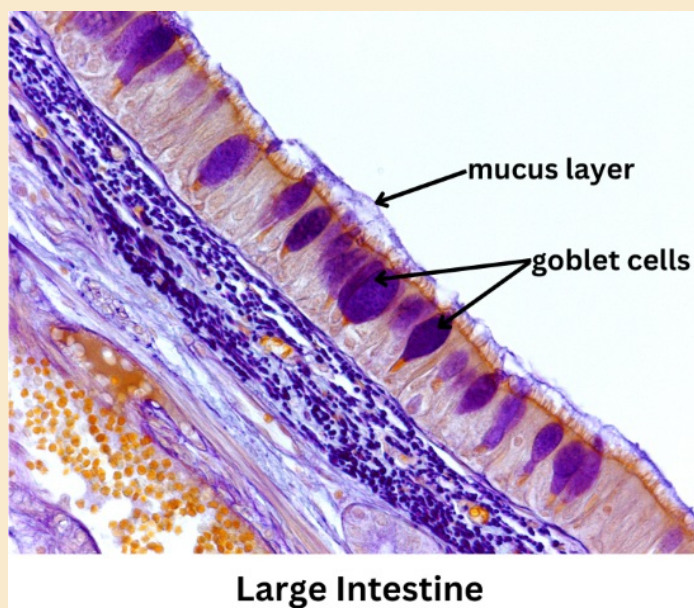
How much fiber is actually beneficial for anyone?

What about the first part of that statement, "*While fibers are typically beneficial in individuals with normal microbial fermentative potential,*" . . . Is that actually true for everyone, as is commonly believed? How much fiber is beneficial? Is increased fiber more, or less beneficial? Let's consider some other medical research.

As the researchers found in a study recently published in Medical Xpress (Cell Press, 2022, April 28)²:

"Overall, our findings show that the benefits of fiber are dependent on fiber type, dose, and participant—a landscape of factors resulting from interactions between fiber, the gut microbiome, and host," Snyder says. "These results have important implications in personalized response and interventions."

Note that this conclusion applies to the general population, not just IBD patients. But the issue is much more concerning than that, as can be seen in research data published almost 2 decades ago, in PloS Biology (Miyake, Tanaka, & McNeil, 2006)³. An interpretation of the findings of this research can be found in much more easily understandable form in an article written by Jason Underwood, also published in PloS Biology (Underwood, 2006)⁴.



The critical role of goblet cells, with regard to dietary fiber.

As Underwood points out, when various foods in meals pass through the stomach and the intestines, it's normal for the delicate mucosal lining of these organs to be scratched and physically stressed. But injuries are minimized by lubricating mucus that's secreted by certain cells (goblet cells).

In the study by Miyake, Tanaka, & McNeil, (2006), the researchers suggest that the response to stress is a localized event that's limited to the site of the physical damage. By using several types of rodent digestive system mucosal tissue, and several different damage inducing techniques, they demonstrated that the mucus is secreted at the damaged site, and the cells repair their own damaged tissue by forming a scab over the lesion (within a few seconds).

Furthermore, the researchers demonstrated that calcium is associated with both processes (both the mucus production and the repair process), suggesting that if adequate calcium is not available, neither process can take place, which of course would lead to rapidly accumulating damage to the mucosal lining. Whether or not this (inadequate calcium availability) might lead to the development of IBD, or some other digestive system disease, was not explored. Apparently, no other researchers have explored this issue, either. Consider that the reason autoimmune diseases develop, is because inflammation causes intestinal damage that never has an opportunity to properly heal before additional damage occurs, thus perpetuating the inflammation (because inflammation is the first step in the healing process), and causing the intestinal damage to accrue.

Mucus in the stool of MC patients is a symptom of severe inflammation.

Mucus is an indication that cells in the mucosal lining of the colon are desperately attempting to protect themselves from further physical damage. It seems to be sort of a last-ditch effort to stop the trauma. The stool of patients who have active Crohn's disease or ulcerative colitis often contains mucus, also.

What defines the line between good and bad?

Why would this phenomenon be considered to be a good thing in people who do not have an IBD? Granted, less mucus is typically present in the stool of people who do not have an IBD, but how does the term “less” somehow make it a good thing? If less makes it a good thing, then where does the line of demarcation appear between good and bad? How much mucus is good, before it suddenly becomes bad?

If some fiber in the diet may be beneficial, does that imply that more fiber is more beneficial?

Everywhere we turn, we see, “Eat More Fiber”. Doctors recommend it, health advocates recommend it, health related websites and books recommend it — it's probably even printed on a few billboards here and there across the countryside. Recommendations to eat more fiber seem to have originated in the 1980s, with the advent of the publication of the Food Wheel in 1984 by the United States Department of Agriculture (USDA). Over the years, the recommendation has become ubiquitous.

For years, Dr. Michael Eades has had a blog called Protein Power.

And in recent years, his wife, Dr. Mary Dan Eades, has also joined the blog. Back in 2006, after the article by Underwood (cited above), was published, Dr. Eades wrote a blog discussing the absurdity of the “eat more fiber” campaign. In the article, Dr. Eades suggests that readers visualize a fictitious situation where in the early days of medicine, before antibiotics were developed, doctors might have recommended that their patients who had respiratory ailments should try to clear their airways by coughing up mucus, because the mucus was probably a breeding ground for bacteria, so it was best to get rid of it. And this did indeed help to clear the airways. Eventually, though, as that practice became popular, people were trying to cough up mucus frequently, even though they didn't have a respiratory problem, just to try to keep their bodies clear of bacteria. This leads to coughing up mucus becoming a popular fad, and a national obsession. This might sound incredible to us, but that's because

we're living in a world that doesn't worship coughing up mucus. Instead, we live in a world that worships daily bowel movements.

As Dr. Eades points out, animals in the wild don't have daily bowel movements, especially carnivorous animals. Carnivorous animals eat virtually no fiber. The defecation schedules of various animals depend upon their diet. In the article, Dr. Eades discusses the details of the research (cited above), and concludes his article with:

"So, we have a situation where a product causes damage to the cells lining a tube, causing them to produce a lot of mucus in an attempt to protect themselves. In the process many of these cells die and are replaced by new cells. And this is perceived as a good thing."

My question is: is it really a good thing?

The handwriting is on the wall.

This situation appears to be similar to other health issues in which the medical profession has reversed various long-standing positions. Surprisingly, the profession has a long history of reversals, including some real doozies, such as the bloodletting that was practiced in ancient Greece, the failure to endorse handwashing that was practiced into the 19th century, and the "More Doctors Smoke Camels" fiasco of the 1920s (Spensley, 2021, March 3)⁵. So reversals of long-standing medical policies are nothing new to the profession.

Medical policy reversals typically proceed slowly and grudgingly.

Such policy changes usually take years, and often decades, before they're completed. The profession consists of many individuals, and institutions, so unlike changes in the corporate world, changes in the medical world tend to evolve slowly, primarily because almost always, many are opposed to the changes. But the research noted in the second paragraph of this article has planted the seeds of change.

How fast the progeny of those seeds will grow, and how far they will reach, remains to be seen. But eventually, this will inevitably result in major changes in IBD treatment advice, as additional research projects are planned, and then completed, and the data published. Whether or not it will result in any changes in future dietary advice for the general public, is anybody's guess at this point.

Fiber is not a food sensitivity.

While we're waiting for the significance of this research discovery to slowly propagate through the health care system, as medical professionals in general, and gastroenterologists in particular, update their understanding and treatment methods for IBD's, remember that nothing has changed in our recommendations. None of us produce antibodies to fiber, so it's not officially an immune-system-detected food sensitivity, but when our intestines are already highly inflamed, because of an active MC flare, significant amounts of fiber in our diet tends to further irritate the mucosal tissues, and for many of us, the additional irritation can frustrate our attempts to reach remission, or at the very least, prolong the journey to remission.

Is the percentage of fiber in our diet even worthy of our concern, from a nutritional viewpoint?

As MC patients, if fiber is causing us to have digestive problems because we have an IBD, then obviously, we need to restrict our fiber intake. If we consider the paleontological evidence regarding the various hunter-gatherer tribes from which we evolved, it's obvious

that various tribes ate whatever food was available to them. Consequently, some had an almost insignificant percentage of fiber in their diet, while some had a relatively high percentage of fiber in their diet, and other tribes ate various levels of fiber in between these extremes. It's very unlikely that they were ever concerned about the amount of fiber in their diet, because they ate to survive. A Scientific American article noted that (Ungar, April 17)⁶:

"The Tikigagmiut of the north Alaskan coast lived almost entirely on the protein and fat of marine mammals and fish, whereas the Gwi San in Botswana's Central Kalahari took something like 70 percent of their calories from carbohydrate-rich, sugary melons and starchy roots. Traditional human foragers managed to earn a living from the larger community of life that surrounded them in a remarkable variety of habitats, from near-polar latitudes to the tropics."

No one told our Paleolithic ancestors what they should eat.

They ate whatever was available. And it's worth noting that in general, they were bigger, stronger, and healthier than modern humans. Humans are very adaptable, and that is not only the key to our survival, but surely the key to the prosperity of our species on this planet, as well.



And we shouldn't be concerned, about the constant campaign to "Eat more fiber", because history proves that humans are able to adapt their diet to whatever foods are available.

In conclusion:

Despite this new medical research discovery (cited at the beginning of this article), we continue to maintain that, in general, especially while we're recovering, and for some of us, long after we reach remission, significant amounts of fiber in the diet interfere with recovery, due to the physical irritation that it imposes on the mucosal lining of the colon. The bottom line appears to be that the lower the fiber content of our diet, the faster we typically recover.

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