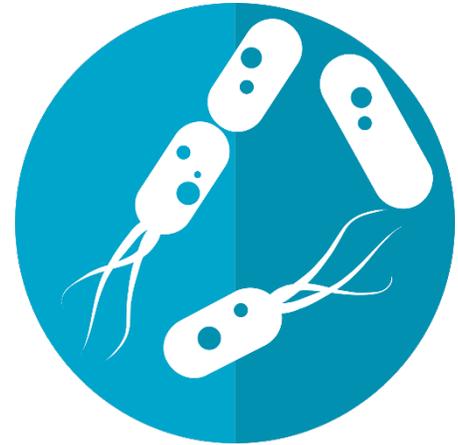


Deeply Ingrained in Gut Health

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When was the last time you thought about your gut? If you are anything like me, you might be thinking about it right now... I don't think about my gut because I am sick and need to carefully look after my insides. The reason is actually much simpler than that; I am utterly and completely fascinated by the fact that my intestines are home to nearly 100 trillion little microbes (bacteria, fungi, archea and viruses).

How these little unicellular organisms came to share our bodies remains a mystery but they definitely seem to play an important role in our daily lives. In fact, these little passengers are famous right now, as scientists and doctors are doing research to understand their role in health and disease. The squirming mass of microbes in and on our bodies, has its own name, the "microbiome" or "microbiota." These fancy terms just mean that the microbes make up a complex and intertwined community which contributes to our daily functioning as humans. For example, the microbes that live in our intestines are crucial to our health in a number of ways. They help PROTECT us from infections and other foreign invaders, STRENGTHEN the immune system, and NOURISH our bodies by processing the less digestible portions of foods that we eat.

Beyond doctors and scientists, interest in the microbiome has also captured the attention of both consumers and industry, contributing greatly to the increased availability of functional foods and bioactive supplements. But long before these special dietary products were available, our ancestors

were eating fiber-rich foods (grains, fruits and vegetables) that gut microbes enjoy. For a list of microbe-approved foods check out the figure in this article!



wheat
barley
oats
corn



onions
bananas
artichokes
chicory root
garlic
dandelion greens

As you can see, there are many foods that fuel the microbiome, but grains are one of the most diverse and frequently eaten foods. Our tiny microbial friends enjoy grains because they contain dietary fiber, prebiotics and polyphenols. Prebiotics are non-digestible food components that increase the good microbes in our guts and ultimately improve our health. Polyphenols are compounds that give plants their color and help fight inflammation in the body. Gut microbes enjoy snacking on prebiotics, polyphenols, and dietary fibers. As a

result of their snacking they produce health-promoting compounds that boost our immune system, keep our guts healthy, and help prevent inflammation.

Because grains are staple foods in the American diet, they offer an easy way to feed not only our own bodies but also our tiny microbial passengers. Wheat actually contains two of the most potent prebiotics, inulin and oligofructose. Microbes love munching on these little molecules and as a result of their snacking, they improve our health. Recent research has shown that wheat, the most commonly consumed grain, has major benefits for our gut microbes and overall health. One study which compared whole wheat with wheat bran products, found that whole wheat consumption for three weeks improved the number of two beneficial microbes, bifidobacteria and lactobacillus.¹ Another study found that 8 weeks of polyphenol consumption from whole wheat decreased inflammation in the body.² This decrease occurred as the number of beneficial bacteria in the gut increased.² While both of these studies show the effect of whole grains, another study found that 12 weeks of consuming refined wheat bread resulted in increased gut production of butyrate,³ an important fuel for intestinal cells that is also associated with reduced inflammation in the intestine and a reduced risk of colon cancer.

We have known for a while in the scientific community that whole grains are packed with nutrients and improve conditions like obesity, diabetes, cancer, and cardiovascular diseases but we are just beginning to understand what wholesome products like wheat can do for our health through the microbiome. Now, more than ever, we need to enjoy the fruits of this earth, wheat included! So, the next time you sit down at the dinner table, snag a few slices of bread from the bread basket. Your tiny microbial friends will thank you!

References

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