The Fascinating Bacteria in our Gut, and How it Affects Our Whole Lives

We are host to somewhere between 300-1000 different species of bacteria, each of which has one goal—to survive and multiply. While they live and thrive in our gut, beneficial bacteria provide many necessary and health-related functions. They help us digest our food. They line our intestinal wall, providing a physical barrier against bad bacteria and fungi that may damage or inflame the tissues. Some produce vitamin K and B vitamins, while others aid in synthesizing vitamins. They produce 95% of our serotonin as well as other neurotransmitters. They make up 80% of our immune system, and more. The by-products of their lifecycle benefit us through a harmonious, symbiotic relationship.

We classify bacteria as bad bacteria when their byproducts or functions can harm our bodies. For example, most of the E-coli bacteria strains are harmless. In fact, the harmless strains help prevent colonization of pathogenic bacteria and produce vitamin K2, whereas the pathogenic E-coli strains cause a variety of infections and may even cause death.

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Aside from illness, researchers are learning that specific species of bacteria exert different influences on their host bodies. One example is our metabolism. The bacterial makeup of a lean person is different than the bacterial makeup in someone who is obese.

One study showed that Enterobacter, an endotoxin-producing bacterium, taken from the gut of a morbidly obese human, induced obesity and insulin resistance in healthy mice. In a volunteer with an initial weight of 385 lbs, Enterobacter made

up 35% of the gut bacterium. After 23 weeks of a diet of whole grains, traditional Chinese medicinal foods, and prebiotics, the volunteer lost 113 lbs and all traces of Enterobacter. The conclusion was that this endotoxin-producing bacterium creates inflammation that causes insulin resistance resulting in weight gain.

Another recent study showed a direct correlation between a high or low level of bacterium in the gut and the subjects' weight. A high level of bacterium, with a high level of diversity, was linked to a healthy weight, whereas a low level of bacterium was linked to overweight individuals.

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The amount of bacteria in the gut relates to more than weight, it is also an indicator of overall health. Our actions affect the amount, the diversity, and the ratio of good to bad bacteria. For example, antibiotic use indiscriminately kills bacteria. Antibiotics do not just target the one pathogen causing an infection in our body; they kill off much of the bacteria in our gut as well. Not only do we need the good bacteria to do its work (including keeping the bad bacteria in check), we need to maintain the delicate balance between bacteria and fungi. Candida is opportunistic. Given a chance, it will quickly mass-produce, wreaking havoc in the digestive tract and, in time, the entire body.

As research continues to reveal that diversity in gut bacterium is essential to good health and can influence bodily functions such as serotonin production (a huge factor in depression) or metabolism (a factor in weight control), researchers are learning more about which particular bacteria are beneficial and which bacteria have an unhealthy effect on the body. The day may soon come when we choose our probiotics to manage our weight, to maintain our mental health, or to treat a variety of diseases. Until that day arrives, our diet

choices can and will alter this internal balance.

We do have a basic knowledge of which foods promote beneficial bacteria and which foods and medications promote bad bacteria, and we know how to increase the beneficial organisms to crowd out those that do not serve our health.

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The first and most important step to increase health inducing bacterium in the gut, is to eat a diet rich in prebiotics—in other words, lots of raw vegetables and fruit. A large salad each day, filled with a wide variety of vegetables, provides the healthy bacterium in our gut with the food it needs to thrive. Insoluble fiber also houses good bacteria, giving it a structure upon which to multiply. Raw, whole, organic vegetables and fruits (more vegetables than fruit) should always comprise 80% of our diet.

We not only know what to feed good bacteria, we know what feeds or promotes bad bacteria: processed dead foods, acidic foods (factory raised meat and dairy), pasteurized foods, irradiated foods, sugar, antibiotics, antacids, and anti-inflammatory drugs. Choose only organic grass fed beef, organic free-range chicken, and raw dairy. Never eat farm raised fish. Avoid all GMOs, including second generation GMOs from animals raised on GMO feed.

If we were to believe the advertisements, one or two servings of sugar filled, pasteurized, yogurt (often with other ingredients added to thicken, stabilize, preserve, and/or add artificial flavor) would provide all the beneficial bacteria we need. If any beneficial bacteria from this yogurt survived our stomach acid and made it to our intestines, the dairy and sugar content alone would negate its benefits (pasteurized dairy and sugar feed Candida and “bad” bacteria). There are better ways to include probiotics in our diet.

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Probiotic foods such as coconut kefir, kombucha, sauerkraut, kimchi, and raw, organic apple cider vinegar all increase healthy bacterium in the gut. There are also excellent probiotic supplements formulated with very strong bacteria strains that have the ability to make it past the stomach acid before releasing the bacteria into the intestines. These probiotics are rare; most on the market are useless. But the good ones are powerful and can help reset your ecosystem. Remember, while probiotics can be very helpful, more benefit is gained from prebiotics, vegetables in particular. Conversely, if your appendix has been removed, you may need a daily probiotic supplement for the rest of your life. FloraMend Prime by Thorne Research is a very strong and stable probiotic that we highly recommend.

Every choice we make to detox, cleanse, and properly feed our bodies will affect the microbes in our gut. Though we were born with a particular balance of bacteria, it has been influenced throughout our lives by toxins, antibiotics, vaccines, and the foods we have eaten. But we do have the power to change it. We can increase the amount and the type of bacteria in our bodies primarily by the foods we choose to eat and the foods we choose to avoid.

If you want to reduce Candida and harmful bacteria in your gut be sure to check out *Gluten, Candida, Leaky Gut Syndrome, and Autoimmune Diseases*, and we recommend the following:

Recommended Supplements:

- Floramind-Prime by Thorne
- Shillington’s Intestinal Cleanse
- Formula SF722
- MicroDefense – Pure Encapsulations

Further Reading:

- *How to Cure Candida*

- *After taking antibiotics, this is what you need to do to restore healthy intestinal flora*
- *Fermented Foods Optimize Your Health*
- *How to Kill Candida and Balance Your Inner Ecosystem*

Sources:

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