



LIVE WELL BE WELL

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Go With Your Gut... Your path towards health is paved with good intestines!

The need for a healthy gut and its impact on overall health is not a new concept. “All disease begins in the gut,” was penned over 2500 years ago by Hippocrates. But unfolding research is redirecting our attention to just how important gut health is and how many aspects of your overall health it impacts.

Your digestive tract forms in the earliest stages of human development, when rapidly dividing cells of an embryo multiply around an empty space that eventually becomes a long tube surrounded by cells. This tube develops into your mouth, esophagus, stomach, and small and large intestine. Almost every major organ connects to or communicates with your digestion tract—liver, pancreas, spleen, gallbladder, kidneys, even your brain. It is the highway through which everything you put in your mouth travels, where vital nutrition is absorbed, toxins are eliminated, and it is also home to several trillion bacteria friends.

So small they can't be seen by the human eye, bacteria catch a ride on the food you eat or drink and put down stakes in your gastrointestinal (GI) tract and stay. Our germophobic culture may have led you to believe that bacteria are harmful. While there are types of bacteria that can make you ill, there are many, many strains of bacteria that play a beneficial, even vital, role in your overall health. In fact, having healthy bacteria in your gut is so vital, nature is designed to inoculate us from birth. In the last trimester of pregnancy, women produce hormones that cause the birth canal to become

heavily populated with bacteria so newborns receive a healthy dose of good bacteria during birth.¹ Infants born by C-section, fail to receive this inoculation, and consequently, as adults they have higher risks of suffering from asthma, autoimmune disorders, heart disease, and diabetes compared to those born naturally. You can't change the way you were born, but there are lifestyle factors that you do have control over that can either harm or heal your gut health. [Let's look at some of these strategies.](#)

The most important strategy in keeping your gut healthy is to feed the beneficial bacteria that live in your GI tract. Fiber is food the bacteria in your gut needs to grow and multiply. Like any other living thing, if you want it to thrive and grow, you must feed it often and feed it good food. Fiber is the part of plant foods we eat that we don't digest and absorb. There are hard fibers like the strings on celery or the coating on corn kernels. There are also soft gooey fibers like the pectin in apples or fibers found in vegetables and oatmeal. If the healthy bacteria in your gut don't get enough fiber they die. The type and number of healthy bacteria you have in your gut is directly related to the amount and variety of fibers you eat.

In rural Africa the occurrence of heart disease, diabetes, fatty liver, hypertension, irritable bowel disease, auto-immune disease, and many cancers are relatively uncommon.² Rural Africans consume 45-70 grams of fiber daily. Compare that to the average daily fiber intake for most American's which is 15 grams a day, and then compare rates of diabetes, cancer, heart disease, etc., and you begin to appreciate the importance of a healthy gut.

In America, our high animal protein, sugar, and fat-rich

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diets are starving our gut bacteria and we pay the price with our health. A healthy gut needs lots of fruits, vegetables, nuts, seeds, legumes, and (if you tolerate them) whole grains. Ideally, you want to get your fiber intake above 40 grams a day. What might that look like? Four servings of fruit, four cups of vegetables, ¼ cup of nuts or seeds, and one cup of beans totals approximately 40 -55 grams of fiber. Consuming a high fiber diet isn't hard to do if you are eating a mostly plant-based diet.

Certain fibers are particularly helpful for promoting healthy gut bacteria. The fibers in beans are a desired food source by friendly bacteria in your gut.⁴ One quarter cup of beans a day dramatically increases healthy gut bacteria populations and decreases the number of harmful bacteria within just a few days of eating them. This may be one reason why many studies indicate that people who eat beans daily, live longer and have much less occurrence of diabetes, cancers, and heart disease.⁴

Choosing a rainbow of colors in your vegetables and fruits provides you with two advantages for gut health. Colorful produce provides a wide variety of fibers to encourage the growth of healthy bacteria populations in your gut. Secondly, the colored pigments in fruits and vegetables have powerful anti-inflammatory properties. If you suffer from bloating, frequent bouts of diarrhea, colitis, irritable bowel, heart burn, Celiac's or Crohn's disease, these pigments can help heal inflamed tissue in your digestion tract at the same time as feeding healthy bacteria. There are some fruits and vegetables that have especially powerful anti-inflammatory properties and they include broccoli, Brussel sprouts, cabbage, cauliflower, kale, all types of sprouts (especially broccoli sprouts), all types of berries, kiwis, peppermint, and turmeric.

Another great source of the beneficial gut bacteria can be found in daily servings of fermented vegetables.⁴ A long-time staple in all cultures, fermented foods like sauerkraut, tempeh, miso, kimchi, and kefir are already partially digested by naturally occurring bacteria. They contain large amounts of beneficial strains of bacteria and the fibers needed to encourage growth. They are referred to as probiotic foods.

Cooking your fruits and vegetables does not eliminate their healing properties, however there is good reason to eat at least ½ of your daily fruits and vegetables raw³, particularly if you are trying to heal from any disorders of the gut. Every type of produce naturally develops a unique collection of bacteria that thrive on the surface of the produce. When you eat raw vegetables and fruits you get healthy doses of beneficial bacteria. This is an inexpensive, easy, and safe way of taking in the right kinds of probiotics (bacteria). While

over-the-counter probiotic supplements have become popular, the science behind how much and/or what strains of bacteria are needed for optimum health is still not well understood. Until healthy gut biome is better understood, it is better to get your probiotics naturally from food instead of from a probiotic supplement.

Artificial sweeteners, highly processed foods, and high sugar content foods should be avoided. Processed foods are typically low fiber and high in sugar and this negatively affects gut health. Artificial sweeteners are not digested or absorbed in your small intestine, instead they travel to your colon and are digested there by bacteria. Once thought to be a great tool for people with diabetes and obesity, research now indicates that artificial sweeteners elevate blood sugars and aggravate obesity. More alarmingly, a few studies indicate artificial sweeteners may promote the growth of harmful bacteria in your gut, greatly increasing risk for serious disease.¹⁰

Two Brains are Better Than One. The gut is often called your second brain because digestion in your gut sends signals to your brain, and influences a multitude of metabolic pathways in your body. As bacteria in your gut digest fiber, short chain fatty acids are produced. These fatty acids feed the cells that make up the delicate skin layer that lines your colon. This stimulates the cells to send signals along the central nervous system to your brain. In this way, your gut directly influences many aspects of health.

Free fatty acids in the gut stimulate the release of hormones that control appetite and weight regulation. Studies indicate that unhealthy balance of gut bacteria (dysbiosis) is correlated with obesity. Dysbiosis in the gut has been found to cause weight gain even when calories and activity are controlled. Anyone wanting to lose weight and keep it off, will need to work on lifestyle behaviors that support gut health. The production and release of many neurotransmitters are affected by gut signals as well, which affects mood, mental clarity, and behavior. Gut dysbiosis has been linked to depression, anxiety disorders, and autism. Fertility, erectile function, cancer, and heart health are also influenced by gut health. Gut dysbiosis is considered one of the initiating factors in autoimmune disorders.

Other lifestyle factors have a direct impact on the types and quantities of bacteria in your gut. Environmental toxins and pesticide residues on foods or leached toxins from plastic in food containers, cleaning solvents, stain and fire-resistant chemicals used in textiles, pollution in the air and water, all damage healthy gut bacteria and may cause harmful types of bacteria to proliferate. Certain drugs such as antibiotics, acid blockers, and anti-inflammatory drugs, have an adverse effect on gut

health and should only be used when necessary. Studies show that interrupted sleep, lack of exercise, and stress affect hormonal balances that can negatively impact gut bacteria so these are important lifestyle factors to work on as well.

How do you know if your gut is in trouble? Problems in the gastrointestinal tract can be an indicator of possible poor gut health. If you suffer from chronic bloating, cramping, bouts of unexplained diarrhea, constipation, or irritable bowel, you should work on improving your gut health and get checked by your physician. These are signs that you may have gut dysbiosis.

Because gut bacteria play such a role in many metabolic pathways, symptoms that don't involve the GI tract may show up that you might not think would be related to your gut.

- Achy joints
- Acne
- Arthritis
- Auto-immune disease
- Chronic fatigue
- Chronic low-grade anemia
- Depression
- Headaches
- Heart palpitations
- Hair loss
- Mental fog
- Weight gain or difficulty losing weight

All of these may be signs your gut is in trouble.

There are a few simple ways you can evaluate your gut health on your own. First, observe the volume of your stools. A healthy gut should produce twice the volume of stools than the volume of food eaten. How is that possible? Stools contain 55% dead bacteria cells. A healthy gut has a rapid turnover of bacteria cells and should produce a high volume of dead cells. Remember Africa, where heart disease, fatty liver, and diabetes is rare? Rural Africans have 3-4 bowel movements daily. If you are not having at least one large bowel movement a day, your gut health needs work. Ideally, you should be eating enough fiber to become a super pooper - 2-3 bowel movements a day. Measure the transit time of your bowels. A healthy gut will eliminate in 12-24 hours. Try eating beets which stain the bowel movements red and measure how long it takes to eliminate. If you are taking more than 24 hours to pass a bowel movement, you need to work on your gut. Lastly, observe if your

bowel movements have the shape of a soft banana. If you have small hard balls, compacted or overly loose stools, you need to work on gut health. If you want help improving your nutrition, eating for gut health, increasing your fitness, and/or losing weight, consider attending one of our Free Nutrition/ Fitness Forums. Locations and times are listed on our website [positivechoice.org/Nutrition Fitness Forum](http://positivechoice.org/NutritionFitnessForum)

If you are experiencing symptoms despite treatment from your primary care physician, you may want to try an integrative medicine approach called the **Elimination Diet**. An elimination diet is a diet rich in fresh fruits, vegetables, and legumes and removes foods that may aggravate the gut (some of the grains, dairy, soy, or eggs) for a period of 30 days or longer. People who are having severe symptoms may need to remove nuts, seeds, and nightshade vegetables for a while, as well. Then each food group is slowly reintroduced and tested for tolerance. You can read more information on the elimination diet on our blog at [positivechoice.org/blog/elimination diet](http://positivechoice.org/blog/elimination-diet). If you need more help you can schedule an appointment with one of our Integrative Medicine physicians. The appointments are \$250/hr. and include a detailed review of your medical history, food records, medications and supplementation, sleep cycles, etc.

Lastly, if you are trying to lose weight, please consider making as many lifestyle changes for good gut health as you can. Losing weight and keeping it off are hard enough and you don't want gut dysbiosis to interfere with your hormones and make your progress harder. The Positive Choice Integrative Wellness Center offers comprehensive weight loss programs that don't just end with weight loss. Long-term maintenance support is a part of the program and we offer several different types of weight loss programs to accommodate different needs. Our weight programs help resolve type 2 diabetes (75% remission rate), hypertension (33% remission), hyperlipidemia (80% remission), and fatty liver disease. You can download more information online at positivechoice.org or attend one of our Information Sessions, call or see website for dates/locations at positivechoice.org/calendar.

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