

TO YOUR HEALTH

Volume 28, Number 3

March 2023



The Gut Microbiome – What’s it all about?

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The science of the gut microbiome is rapidly evolving. *“It is in the forefront of science, but the field is in its infancy,”* says Dr. William Depaolo, a gastroenterologist and director of UW Center for Microbiome Sciences and Therapeutics. Many studies are showing a connection between the gut and overall health and wellness. A study by Zmora, et al 2019, noted that *“diet is the pivotal determinant”* in the gut health function. Read on to find out more about your gut.

The “gut microbiome” refers to the microorganisms living in your gastrointestinal tract, namely the intestines. There are at least 1,000 different kinds of bacteria. Bacteria can be harmful, but there are many beneficial kinds of bacteria in the gut that assist your body with digestion, making vitamins, absorbing nutrients, and can crowd out harmful microbes that can cause illness. The composition of the gut microbiome affects one’s health in even bigger ways as well, impacting your immunity, the risk of disease, your body weight and even one’s mental health.

For example, people with diabetes and inflammatory bowel disease may have less microbial diversity in their guts compared to those who don’t. When there is an imbalance between the types of bacteria present in one’s gut, it is called gut dysbiosis. (Derived from Greek, “dys” meaning “bad/ill”, “biosis” meaning “way of living”.) Gut dysbiosis has been linked to some conditions such as Crohn’s disease, ulcerative colitis and irritable bowel syndrome, and may put one at a higher risk for heart disease. Balancing helpful and harmful microbes is key to a healthy microbiome.



The gut microbiome is started at birth and is affected by genetics, but it is not a static system. It is constantly changing and there are a lot of things one can do to influence it.



Microbiome Makeover

Maximize the health of your microbiome by **eating fiber**. Your body can not break down fiber, but the helpful bacteria in your gut can. Beneficial bacteria digest fiber and use it for fuel. Most Americans get less than half of the recommended 25-38 grams of fiber daily. Work in high-fiber foods like oatmeal and beans, substitute breads and pasta made with white flour for whole wheat versions.

Eat more plants.

Fruits and vegetables are not only high in fiber but also contain polyphenols. These are natural plant compounds that beneficial bacteria use for food. Some of the foods rich in polyphenols include berries, grapes, artichokes, olives, coffee, tea and dark chocolate.

Include fermented foods in your diet – they are gut-friendly because they are preserved by/with bacteria. Fermented foods include yogurt, kefir, miso (a thick paste made from soybeans and grain—has a savory “umami” flavor, can be used in dressing and soups), tempeh (which is like tofu but firmer and chewier than tofu), kombucha (a fermented tea), kimchi, and sauerkraut. When shopping for yogurt, look for the phrase “live and active cultures” on the label. Even if you have lactose intolerances, there’s a good chance you can handle yogurt, since the bacteria also ferments and breaks down the lactose.

Pay attention to Antibiotic Stewardship.

Antibiotics can be vital to fighting infections, but they can also be overused. Antibiotics are designed to kill the harmful bacteria causing illness, however, they can also wipe out beneficial bacteria in the process and disrupt the balance and create gut dysbiosis. When an antibiotic is prescribed, take a **probiotic** (Derived from the Latin preposition “pro” which means “for” and the Greek word “biotic” meaning “bios” or “life”.) A probiotic supplement can deliver strains of helpful bacteria and help boost the healthy populations in your gut. They are valuable when taking a course of antibiotics, or on a regular basis if your diet does not contain probiotic-rich, fermented foods.

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Eat Prebiotic foods.

These plant foods work like “food” probiotics, aiding helpful bacteria to grow and populate the gut. Foods that contain prebiotics include onions, garlic, asparagus, bananas (less ripe have more prebiotic power), sweet potatoes, and apples (they contain pectin, a starch that acts like a prebiotic), barley, oats and flaxseed to name a few.

Limit ultra-processed foods.

These foods are engineered to be hyper-palatable. They tend to be high in fat, sugar, sodium and additives, come in a convenient package and can provide high amounts of calories, in a small amount with very little fiber. About 60% of the average American diet is made of ultra-processed foods. These foods are linked to unhealthy changes to the microbiome that could increase the risk for disease. Try to choose mostly whole, minimally processed foods for most meals and snacks.



Vitamin D plays a role in regulating your microbiome and reduces gastrointestinal inflammation. Some of the foods that contain vitamin D

include egg yolks, tuna, salmon, and fortified milk. People living in the Northeastern part of the United States do not get adequate UV light due to the latitude and generally require a supplement to meet the daily requirement of Vitamin D.

Eat adequate protein.

It contains nitrogen which limits the number of harmful bacteria in the microbiome. Eating protein can decrease feelings of depression because of the production of serotonin, which affects the mood. Protein rich foods include eggs, milk, yogurt, lean beef, poultry, fish, legumes and nuts.

Stay Tuned

Stay tuned for more developments on the gut microbiome. For now, there are ways to boost your gut and body health with wholesome food that is readily available. If you're interested in learning more, the book *"Eat & Flourish: How Food Supports Emotional Well-Being"* by Mary Beth Albright delves into the gut — mood connection.

**Insurance Update**

In 2023 the prescription program from Blue Cross Blue Shield MA will be using CVS Caremark, which is part of CVS Health. They are no longer contracting their services through Express Scripts. The in-network preferred pharmacy is CVS. If you have your medications delivered, Caremark will be overseeing the transaction. Due to the switch, individuals have encountered problems with the delivery of their medications.

Please note that the new BCBS cards will reflect these changes.

New Clinic Assistant

Please join us in welcoming our new Clinic Assistant, Tanisha Lara. She started on Tuesday, February 21st and will be in the clinic Monday—Friday.

