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Trust Your Gut: Promoting gut health through updated nutrition education

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PROMOTING GUT HEALTH



What is gut health & why is it important?

When talking about your health, the word "gut" means your gastrointestinal (GI) tract, which includes the esophagus, stomach, small intestine, and large intestine. The **gut microbiome** is made up of thirty-nine trillion microorganisms (mostly bacteria) that reside in the intestines and play a key role in the health and function of the GI tract. The gut microbiome is unique to each person – *as unique as your fingerprint!* It is constantly evolving and impacted by diet, genetics, and the environment. Diet plays a role in determining exactly what functions the microbes carry out in the gut.⁴ Your diet is a powerful tool to shape your health in more ways than one.

As residents of the intestines, it comes as no surprise that the microbiome plays an important role in digestive function and healthy bowel movements. In fact, *60% of the weight of your stool is actually bacteria*, giving us a glimpse into the health of the GI tract.¹ Healthy bowel movements are formed stools that happen with little effort in a regular rhythm – meaning if you feel well and satisfied after a bowel movement with no digestive symptoms, then that is the right frequency of bowel movements for you!



Your **microbiome can be compared to a rainforest** in that there are thousands of diverse species that all contribute to the balance, harmony, and health of the ecosystem. There are at least anywhere from 300 to over 1,000 species of bacteria in your intestines alone (out of the 15,000 - 36,000 species in existence), making it the most diverse area of your body.¹ *This diversity is what constitutes a healthy gut*, just as biodiversity is critically important to the health of any rainforest or ecosystem.

Dysbiosis is used to refer to the loss of harmony and balance within the gut. Damage or microbial disruption causes you to lose diversity and, in the process, a higher proportion of inflammatory microbes emerge. *70% of the immune system lives in the gut*, and a strong microbiome empowers the neighboring immune cells for optimal function to protect us from infection and cancer.³

When we take care of our microbes, they take care of us.

There is growing evidence that dysbiosis is linked to:

- **Immune-mediated conditions** such as type 1 diabetes, celiac disease, asthma, allergies (food and seasonal), and rheumatoid arthritis
- **Metabolic conditions** such as obesity, type 2 diabetes, coronary artery disease, hyperlipidemia, and gout
- **Endocrine and hormonal conditions** such as endometriosis, PCOS, and osteoporosis
- **Neuropsychiatric conditions** such as anxiety, depression, Alzheimer's disease, Parkinson's disease, and autism spectrum disorder

Fun fact: 90% of serotonin (the happy hormone) is produced in your gut!

Foods that promote gut health

Your diet can not only change the composition of microbes in your gut, but also the role they play in impacting your health. In fact, research has demonstrated that dietary changes can alter your microbial composition within just 24 hours of making a dietary change.

3 main components to consider when eating to optimize one's gut microbiome:

1. **Diversity of plants** – the single greatest predictor of a healthy gut microbiome is the diversity of plants in one's diet.²

- Every plant has its own unique mix of fiber, phytochemicals, and nutrients that feed your gut. By focusing on the diversity of plants, you maximize the different nutrients that your food contains to optimize your health.
- Aim to increase the amount of plants in your diet, or in other words, “eat the rainbow” – varied & colorful fruits, vegetables, whole grains, legumes, seeds, and nuts.



A diverse plate corresponds to diverse microbes

2. **Prebiotics** – indigestible chemicals that, when eaten, pass through the digestive system and act as food for the microbiota.

- Rainforest analogy: food for animals and sunlight/dirt for plants
- Common food sources: anything that contains inulin, including garlic, onion, leek, asparagus & chicory root

3. **Probiotics** – live microorganisms that have a beneficial effect when applied to a host. In other words, the theory with probiotics is that they mimic the effects of our intact gut microbiota.

- Rainforest analogy: the plants and animals that make up the diverse rainforest
- Common food sources: Active-culture yogurt, kefir, kombucha, kimchi, sauerkraut, other fermented fruits & vegetables

The importance of fiber – Fiber feeds your microbiome, contributes to healthy bowel movements by correcting diarrhea and constipation and increasing the weight and size of your bowel movements, lowers cholesterol, and controls blood sugar.

- The recommended daily intake of fiber is 25-35 grams of fiber. More than 90% of Americans are not receiving this minimum daily amount!⁵
- *Start low & go slow* – as you work to increase fiber in your diet, start at a low dose and work your way up over time
- Stay well hydrated – healthy bowel movements need plenty of water to work well and extra water is needed when fiber is increased



Trust your gut: It's important to listen to your body, your bowel movements, and what foods make your gut feel good – what may work for one person, may not work for you!

Interested in learning more?

Recommended Reading

- Fiber Fueled by Will Bulsiewicz, MD
- Brain Maker by David Perlmutter, MD
- The Mind-Gut Connection by Emeran Mayer, MD
- Gut by Giulia Enders
- The Art of Fermentation by Sandor Katz

Citations

1. Bulsiewicz, Will. Fiber Fueled: The Plant-Based Gut Health Program for Losing Weight, Restoring Your Health, and... Optimizing Your Microbiome. Avery Pub Group, 2022.
2. McDonald, Daniel, et al. "American Gut: an Open Platform for Citizen Science Microbiome Research." American Society for Microbiology, 15 May 2018. <https://journals.asm.org/doi/10.1128/mSystems.00240-18>.
3. Perlmutter D. 2015. Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain--For Life. Little, Brown and Company, New York, NY
4. Snijders, A.M., Langley, S.A., Kim, Y.-M., Brislawn, C.J., Noecker, C., Zink, E.M., Fansler, S.J., Casey, C.P., Miller, D.R., Huang, Y., et al. (2016). Influence of early life exposure, host genetics and diet on the mouse gut microbiome and metabolome. Nat. Microbiol. 2, 16221.
5. U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition, December 2020. Available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).