MICROBIOME

ur guts contain an astounding number of friendly microbes. The human microbiome consists of the microorganisms that live in and on our bodies. All humans and animals have a populous microbiome. Our resident microorganisms are generally harmless. I will focus on the gut microbiome, which amazingly, has about as many microorganisms in it as the total of our body cells, estimated to be 37 trillion! They protect us from unfriendly intruders. In medical lab terms, they are referred to as "normal flora."

Our gut microbiome has great diversity, with 30–40 dominant species of bacteria, and many more microbial species. The diversity is considered a health-promoting factor. Loss of diversity, such as during antibiotic use, is destabilizing.

In addition to protecting us against invaders, our microbiome aids us in the digestion of our food; it produces chemical agents that aid our immune system, and it produces neurotransmitters that are beneficial to our brain and nervous system. A diverse microbiome goes along with pos-itive mental health, whereas a lack of diversity is common in mental illness. There are specific microbiome changes from chronic depression, chronic anxiety, PTSD, and schizophrenia. An unforeseen treatment that has come out of these research findings is the "Microbiome Transplant."

Healthy gut-microbiome diversity is maintained by a balanced diet. The optimal diet has a variety of foods—fruits, vegetables, grains, and meats. Many traditional cultural cuisines support a healthy gut microbiome. A noteworthy example is the "Mediterranean Diet," which includes the above food categories, along with legumes, nuts, and olive oil. The meats include poultry, lamb and seafood.



Additional dietary factors promoting diversity and stability are: fermented foods, such as yogurt, sauerkraut, kombucha, kimchi, and pickled vegetables. Beer and wine, in moderation, are fermented beverages that are contributory.

In summary, we have a resident army of a colossal number of microbial troops. If we supply them with a well-rounded diet, and do our best to avoid the factors that destroy them, they will serve us and defend us well.

— A Santé!

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8 Surprising Things that Harm Your Gut Bacteria

1. NOT EATING A DIVERSE RANGE AND VARIETY OF FOODS. Interestingly, studies show that those living in rural regions of Africa and South America have a more diverse gut flora than those living in the US and Europe.

2. LACK OF PREBIOTICS IN THE DIET. Prebiotics are types of fiber that pass through the body undigested and promote the growth and activity of friendly gut bacteria. Prebiotic foods include: Lentils, chickpeas and beans, oats, bananas, Jerusalem artichokes, garlic, asparagus, leeks, onions, and nuts.

3. DRINKING TOO MUCH ALCO-HOL. While excessive alcohol consumption has a harmful effect on gut bacteria, the polyphenol content in red wine can protect gut bacteria when consumed in moderation.

4. ANTIBIOTIC USE. Antibiotics can affect the diversity and composition of the gut flora, even in cases of short-term use. This may last for as long as two years unless remediated.

5. LACK OF REGULAR PHYSICAL ACTIVITY. Regular physical activity, even walking, gardening, swimming, cycling, and any movement of the body that burns energy will promote beneficial gut-bacteria growth.

6. CIGARETTE SMOKING. Giving up smoking can improve gut health by increasing the diversity of the gut flora and reducing internal chemical pollution. This can occur after only nine weeks.

7. NOT GETTING ENOUGH SLEEP.

The body has a 24-hour internal clock called the circadian rhythm. Sleep deprivation can disrupt the circadian rhythm, and can have harmful effects on gut bacteria.

8. TOO MUCH STRESS. Excess stress has been shown to reduce gutflora diversity and alter gut-flora profiles by increasing harmful bacteria and reducing beneficial bacteria.

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