



# Microbial Balance

The health of your microbiome depends on having the proper balance between beneficial bacteria or flora and potentially pathogenic or anaerobic flora. You also need to manage or reduce other harmful organisms like fungus, virus, parasites, post virus, to maintain the health and integrity of your gut lining.

When your microbiome falls out of balance or loses its diversity, or your gut lining becomes compromised, it can impact your immunity and many vital processes in your body increasing your risk of chronic disease.

Here are nine of the biggest factors:

**Antibiotics.** Most antibiotics can alter your gut microbial balance. Whether you're taking antibiotics right now, just finished a course last week or took them years ago, the well-being of your microbiome may be compromised. Included are the antibiotics hidden in food, especially factory-farmed meats and conventional dairy products.

**Heartburn pills.** A British study on twins suggests that proton pump inhibitors (PPIs) taken for heartburn can alter your gut flora. An additional 2015 study confirms differences observed in PPI users versus non-users are associated with changes towards a less healthy gut microbiome.

**Fluoridated and chlorinated water.** The chlorine in chlorinated tap water can potentially destroy both the bad bacteria and the good, friendly bacteria in your gut. The same is true for fluoride.

**Processed and refined sugars.** One of the fastest ways to create an imbalance – and feed the bad guys – is to eat too much sugar and non-fiber carbohydrates. Few things fertilize and speed up the growth of pathogenic microbes faster than sugars!

**Processed, refined food.** Processed foods, including pasteurized milk, can harm your good bacteria. Eating the typical Western diet of processed foods produces a profoundly different microbiome than one high in vegetables and fiber.

**Bioengineered foods, pesticides and other agricultural chemicals.** Certain genetically engineered foods and even some non-GMO foods that are not organic, like wheat, can contain glyphosate, an agricultural herbicide that's been shown to target and destroy good gut bacteria. Conventionally raised animals are typically fed bioengineered grains, such as GE corn.

**NSAIDs (Nonsteroidal anti-inflammatory drugs).** Certain popular over-the-counter painkillers can damage cell membranes and your gut lining, and harm healthy gut flora.

**Stress.** Stress affects your gut in a number of ways including hindering the production of enzymes and absorption of nutrients and reducing oxygen levels and blood flow. Plus, it can impact the functioning of your entire GI tract, including your gut flora.

**Pollution.** Airborne particulate matter from car exhaust, home furnaces, and industry, as well as livestock emissions travel from your lungs to your intestines, and can alter your gut bacteria and your intestinal barrier. It can contaminate the food and water supply, leading to further injury of your gut bacteria.



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Although there is a lot which can upset or destroy the balance of your microbiome and the integrity of your gut lining, there is a lot that you can do to help restore your gut health to support your health and well-being.

A healthy microbiome contains two different types of bacteria: essential bacteria from your parents and the environment.

Bacteria from Mom (and Dad to a lesser degree) during the birthing process, breast-feeding and close interactions with friends and family shortly after birth. These include the commonly used probiotic species *Lactobacillus* and *Bifidobacterium*. These organisms are essential for your body's functioning and control its many biochemical reactions. The typical western lifestyle causes significant harm to these bacteria, which can lead to dysbiosis, or an imbalance of microbes.

Transient organisms from the natural environment. These microbes are key "reconditioning" probiotics. They are introduced into your microbiome through environmental exposure in the form of spore organisms. These important bacteria perform critical housekeeping functions in your gut. They're sometimes referred to as the "gut police" because they take care of the condition of your gut and support the growth of good bacteria.

Think of these two categories of bacteria as "reconditioning" and "reseeding." Environmental bacterial spores condition your gut and ready it for reseeded by beneficial bacteria from fermented vegetables or probiotic supplements.

There are a wide range of supplements that can be used to help support your microbiome if you require them. These include digestive enzymes, pre- and pro-biotics and soothing digestive agents.

**Make sure you talk to your health practitioner to find out which supplement is best suited for you.**

We recommend that you get your epigenetics analysed regularly to prevent microbial balance and wellbeing challenges.