# **MICROBIOME BREACH:** 3 UNFRIENDLY CHEMICAL FACTORS

Life is a series of chemical reactions. Right now, multiple chemical reactions are unfolding inside your body, and not all of the chemicals involved are natural. Chemically processed food, environmental factors, and low activity levels are all to blame in adding toxic chemicals to the body that create a microbiome imbalance.

## **PROCESSED FOOD**

## of food purchased in American grocery stores is highly processed

### **Chemical Processing**

Such as adding red dye and flavoring to sugar to make a lollipop. Some food chemicals are considered safe while others are harmful.



Mechanical Processing Such as when cream is churned into butter.



Most, if not all, food is processed in some way. Mechanical processing is necessary to harvest and produce natural foods, while unsafe chemical processing is used to help businesses generate more sales.

Preservatives: Chemicals that increase a food's shelf life Colors: Synthetic dyes that alter a food's natural color Flavors: Chemicals that alter a food's natural flavor Texturants: Chemicals that alter the way a food feels in your mouth



**25%** of global deaths can be clearly linked to environmental factors

#### **Air Quality**



**Ozone Pollution**, also known as smog, traps countless hazardous materials at ground level, causing us to breathe in harmful gases emitted by tailpipes, refineries, factories, and more.



**Particle Matter Pollution** is microscopic dust, soot, pollen, smoke, and liquid droplet particles suspended in the air all around us.



### Surface and Ground Water

- 2,000,000 TONS of human waste is disposed of in bodies of water every day
- Both drinking and recreational waters can be contaminated with chemicals and infectious agents that cause illness



### Indoor Environments

- Indoor air pollution
- Inadequate sanitation
- Lead-based paint hazards



## SEDENTARY LIFESTYLE



Regular exercise prompts a number of chemical reactions to occur within the body that are essential to microbiome health.



A study published in *Gut* showed that male professional athletes have more microbe diversity in their guts compared to men who participate in little to no physical activity.

#### SOURCES:

https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-healt http://www.conserve-energy-future.com/various-water-pollution-facts.php http://gut.bmj.com/content/early/2014/04/29/gutinl-2013-306541 https://authoritynutrition.com/9-ways-that-processed-foods-are-killing-people

