

# **The Importance of eating a plant-based diet**

The human body is inhabited by thousands of species of microbes, containing hundreds of thousands of genes, and made up of trillions of cells that live in and on every human surface. Most of these microbes are in the digestive tract. Humans cannot live without these microorganisms.

These microbes perform dozens of essential functions that humans alone cannot perform.

A few of those functions include the following:

- Digest food
- Produce essential vitamins
- Train and regulate the immune system
- Regulate sugar, fat, and protein metabolism
- Signal the sensations of hunger and satiety
- Control the permeability of the intestinal lining
- Adjust the water balance and motility of the intestinal tract
- Activate and deactivate drugs
- Provide energy to sustain the absorptive cells of the body

Both humans and microbes require energy to survive. Humans gain most of their energy from metabolizing sugars, proteins and fats that are absorbed primarily from the small intestine.

Intestinal microbes, however, gain their energy in large part from non-digestible sugar molecules that the small intestine is unable to metabolize. These nutrients are found primarily in plant-based foods—fruits, vegetables, nuts, seeds, whole grains, beans and legumes.

**Failure to provide microorganisms with adequate sources of nutrient energy causes the microorganisms to seek other available sources. They may then proceed to digest the sugar laden mucus layer of the intestinal lining.**

**As the mucus layer is digested away, it becomes thinner and more permeable, allowing foreign microbes, toxins, and other non-nutrients to pass into the body's tissues. Penetrations cause inflammation, infection and translocation of microbes and toxins to distant organs. (See the article that follows on *Countering Chronic Inflammation*)**

**Providing dietary fiber to intestinal microbes reduces the loss of the protective mucus barrier.**

**A list of 106 food items that are high in dietary fiber and serve as nutrients for intestinal microbes is posted at [kramermedicalclinic.com](http://kramermedicalclinic.com) website—reading reference #14.**

**The book “Fiber Fueled”, by Will Bulsiewicz, M.D. (Reading Reference #3) explains in detail how dietary fiber can benefit the body and the body's intestinal microorganisms.**