

INTESTINAL HEALTH



Healthy Function

Healthful bacteria that coats and protects the intestinal wall, along with other factors obtained from food or from natural intestinal secretions, may help inhibit unhealthful bacteria and contribute to maintaining bacterial balance and optimal intestinal health.

Unhealthy Function

With healthful bacteria and other protective factors missing, unhealthful bacteria, yeast, parasites and toxins may accumulate, damaging the intestinal wall and producing poor intestinal health.

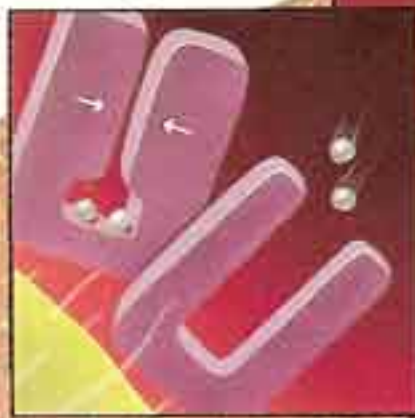
Lactoperoxidase:
A protein enzyme that may damage unhealthful bacteria.



Globulin Proteins: Proteins that may prevent unhealthful bacteria from adhering to the intestine.



Lactoferrin: A protein that traps iron and blocks its use by unhealthy bacteria, thus starving them.



Yeast

Intestinal Deterioration

Toxins

Parasites

Toxins being detoxified

Unhealthful Bacteria

Lactobacillus acidophilus

Bifidobacteria

Fructo-oligosaccharides

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Intestinal Health

The gastrointestinal tract is routinely defined as “a tube approximately 15 feet long, running through the body from mouth to anus.” The World Book Dictionary adds that the intestine is “the lower part of the alimentary canal . . . food from the stomach passes into the intestine for further digestion and for absorption.” This boring, simplistic concept of intestinal function, combined with its indisputable lack of glamour, is reason enough for most people to never give the importance of intestinal health a second thought. This is unfortunate, possibly even dangerous, and needs to change. The reality is that healthy intestinal function is critically important to overall health.

The Intestine as a Protective Barrier

Consider as an analogy the atmosphere surrounding the earth and its role in protecting our environment. It parallels the function of the intestine and its role in protecting our overall health. The earth's atmosphere provides a protective barrier to support and sustain an abundant variety of life. But it is important to note that balance is the key! The atmosphere is composed of a critical balance of different gases that enable it to provide the earth with important filter-like protection to support the life of its 30 million different species of inhabitants.

In principle, the intestine provides a very similar protective barrier. The intestinal wall is coated with hundreds of different species of microorganisms, both healthful and unhealthy bacteria numbering in the billions. This rich, protective coating of microorganisms acts in concert with the physical barrier provided by the cells lining the intestinal tract and other factors, to provide the body with important filter-like protection. Damaging substances like unhealthy bacteria, toxins, chemicals and wastes are filtered out and eliminated. Simultaneously, the critical factors needed for life, such as nutrients and water, are absorbed into circulation and made available to the billions of cells in the body that need them.

Just as the atmosphere selectively filters out excessive amounts of ultraviolet radiation to protect life on earth, the selective barrier function of the intestine is equally protective. In the healthy state, the absorption of small sugars, fats and proteins proceed through the intestinal wall and circulate throughout the body. They are required for a myriad of essential reactions. At the same time, damaging substances from unhealthy bacteria, incompletely digested food, toxins or chemicals are largely prevented from being absorbed and transported throughout the body.

Bad Habits That Negatively Impact Intestinal Health

Unfortunately, human beings have developed bad habits that promote imbalance in both the atmosphere and the intestinal tract. For example, pollutants such as chlorofluorocarbons (CFCs) have punctured holes in our ozone shield. The ozone hole

has widened and deepened every year since scientists began measuring ozone levels in 1985. Scientists feel that the continued depletion of the ozone layer will cause greater amounts of ultraviolet radiation to reach earth, resulting in greater cancer risks, as well as other health problems.

In a remarkable parallel, other bad habits in our society in general have contributed to an imbalance of intestinal protective factors in an alarming percentage of the population. These bad habits include widespread consumption of a diet high in fat and refined simple sugars and deficient in nutritious, whole, unprocessed foods and fiber. This type of diet could potentially tip the intestinal balance toward the overgrowth of unhealthy bacteria and the proliferation of yeast or fungal organisms. It is also associated with less frequent bowel movements and a number of forms of chronic intestinal dysfunction. Other bad habits include the excess consumption of alcohol and the use of antacids and non-steroidal anti-inflammatory pain relievers. These may contribute to a breakdown or deterioration in the physical integrity of the intestinal wall, much like CFCs create holes in the ozone layer. Scientists describe this state of intestinal breakdown as “leaky gut syndrome” and feel it may contribute to intestinal dysfunction. A high-stress lifestyle combined with a poor diet deficient in important nutrients such as L-glutamine, pantothenic acid, zinc, folic acid, vitamin B12, vitamin A and others may impair the healing of intestinal deterioration. Another bad habit is the overuse of broad spectrum antibiotics. Some researchers have acknowledged that virtually every antibiotic taken orally causes alterations in the balance of the bacteria in the intestine. As little as one course of antibiotics may impair the rich, protective coating of microorganisms and upset the balance between healthful and unhealthy bacteria, reducing the resistance to intestinal and systemic ill health.

Helpful Suggestions for Achieving Optimal Intestinal Health

To achieve optimal intestinal health, the following suggestions may be helpful: Avoid excessive alcohol use and refined, sugar-rich, fiber-poor foods. Avoid the use of antacids and broad spectrum antibiotics whenever possible. Eat a diet rich in whole, unprocessed, nutritious foods and fiber. Drink plenty of pure water. Supplement the diet with bioactive proteins (lactoperoxidase, lactoferrin) and globulin proteins that may support a balanced and healthful population of intestinal bacteria. Also, consider adding to the diet fructooligosaccharides (FOS) which act as a food source to nourish certain healthful bacteria. Finally, supplemental, high quality, healthful bacterial products such as bifidobacteria and the NCFM™ strain of *Lactobacillus acidophilus* may also be beneficial.