

Gluten May Not Be the Problem

Does eating French bread give a stomach ache? Does bloating, abdominal gas, flatulence or diarrhea result when eating cake or pie? From these undesirable experiences, do you think you are sensitive to gluten and wheat?

However, what if it is not gluten, nor foods with wheat that are giving you a problem? It is possible that gluten containing foods such as wheat are a problem, but some entirely different reason could be giving problems too. Sensitivity to brewer's yeast or baker's yeast could be the guilty culprits. Symptoms of abdominal bloating, gas, flatulence may signal yeast Candida overgrowth of the gastrointestinal tract. Episodes of such discomfort, coupled with diarrhea, may give rise to a Leaky Gut Syndrome.

Leaky Gut Syndrome is also known as

"increased intestinal permeability." This is a condition of the gastrointestinal tract that is thought to lead to many difficulties throughout the body. Understanding the causes, the physiology and the pathology of leaky gut syndrome can provide insight for healing and prevention.

Leaky Gut Syndrome occurs when the mucous membranes of the intestines become increasingly "leaky" or permeable. In normal health, the mucous membranes of the intestines function to allow absorption of the nutrients of digestion that are needed for health. These same membranes are the preventive barrier to substances that are not useful to the body, and which could even be harmful to health. Such molecules may include larger undigested food particles, such as larger proteins, and toxins. When the integrity of the mucous membranes of the intestines becomes impaired, swelling and inflammation of the cells lining the intestines can become inflamed and swell. When intestinal cells are swollen and inflamed, the cells do not adhere as tightly to each other. When the cells separate, unwanted molecules pass between the cells, through the mucous membranes into the blood circulation. When substances such as food stuffs or foreign substances enter the circulation, the body recognizes them as foreign and begins to develop antibodies against these foreign substances. These antibody-antigen particles circulate and can settle throughout the body, causing problems.

This immune response by the white blood cells against these foreign particles that are circulating in the blood circulation is similar to white blood cells attacking infections. The body recognizes the foreign particles as antigens, and responds by producing large amounts of immune defending antibodies. The antibodies bind to these antigen-type foreign substances. This antibody-antigen immune process, leads to immune complexes that circulate throughout the body. Mast cells, a specific type of white blood cell, respond to this immune reaction process, producing histamine and cytokines, which lead to hypersensitivity reactions. These reactions may be widespread throughout the body, in locations of immune complex deposition. Difficulties can be found in the synovial fluid of joints, skin and diffuse muscles and tissues of the body. The presentation are multiple and varied, and may be such symptoms as swelling, edema, anxiety, runny nose, muscle aches, depression, or skin rash.

Research is showing that there are multiple factors that can lead to the inflammation of the bowel membranes that allow unwanted products of digestion to slip out of the digestive track into the blood circulation. Diarrhea can strip away good bacteria from the intestines. Antibiotics can also kill the normal healthy bacteria needed for digestion, leading to an overgrowth of Candida. Candida yeast will overgrow, leading to



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microbial imbalance in the intestines and membrane inflammation. Lack of the healthy, good bacteria, called "probiotics", is thought to be a primary cause of leaky gut syndrome. Two of the most important needed probiotic bacteria are Lactobacillus acidophilus for the small intestines, and Bifidobacterium bifidum for the large intestine.

When the good probiotic bacteria are missing from the intestines, problems develop. For example, when there is deficiency of bifida-bacterium in the large intestines, there is butyrate deficiency. Butyrate is responsible for stimulating mucin production. A butyrate deficiency can result in decreased mucin, resulting in decreased mucous. Mucous is a primary defense barrier of the membranes of the intestines. With decreased mucous, the intestinal mucosa becomes more easily weakened and inflamed, allowing leaky membranes of a leaky gut to develop. Where there is a leaky gut, immune function decreases, and infections are more common.

There are key considerations in selecting a probiotic. Choose a probiotic supplement that contains multiple organisms. Lactobacillus is needed for health of the small intestines and Bifidobacterium is needed for the health of the large intestines. The probiotic ideally should be "enteric coated," meaning that it can pass through the acidic environment of the stomach, without the bacteria being killed, so the bacteria can be released and absorbed in the small intestines. Many researchers recommend 3-15 billion "colony forming units" of probiotic bacteria daily for gastrointestinal health.

There are specific tests that can help identify basic food allergies and sensitivities. Rotational, or elimination diets, can be helpful to narrow causative problems to the gastrointestinal tract, but can be confusing, leading to false conclusions. One could be led to think gluten and wheat are a problem, when it is a Candida overgrowth problem instead. Therefore, when possible, food allergy testing is advocated. Food allergy testing can be helpful for determine true allergies and sensitivities, documenting which foods to avoid. Blood testing can document abnormal antibody levels to specific common foods that may be causing bowel inflammation. Skin pin prick testing can visually demonstrate allergic reactions to specific foods to completely avoid.

In addition, targeted specific intervention can help to prevent leaky gut syndrome. Limit or completely avoid substances known to cause inflammation of the digestive mucosa, such as alcohol and NSAID's. Consume foods high in fructooligoscharies or inulin, to nurture the growth of bifido-bacteria in the intestines, such as bananas, onions, artichokes, and garlic. Follow an anti-inflammatory diet to decrease chronic increased inflammation. If there is inflammation of the bowel, the amino acid L- glutamine, can be helpful. Glutamine is an essential amino acid needed for healing of rapidly dividing cells of the mucous membranes of the intestines.

Before starting any nutritional supplement, always consult with your health care provider.

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