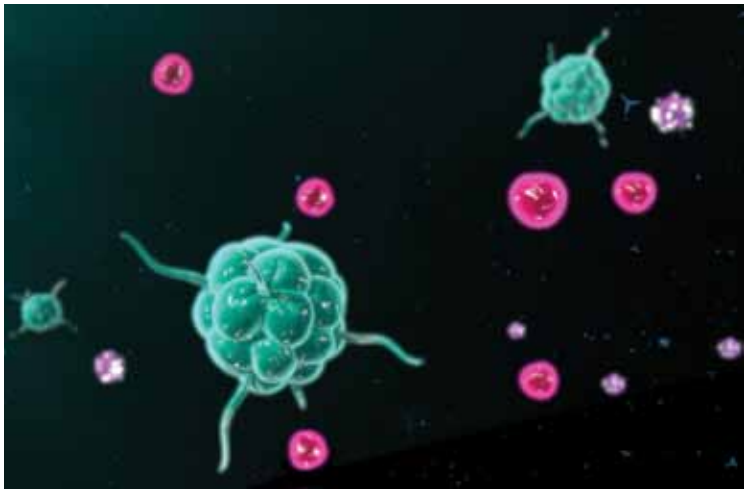
# Allergy and Food Sensitivity

## *What's eating you?*

*by Frank Sabatino, DC, PhD*

Many years ago, a woman came to me after suffering for years with the most intense constellation of allergies I have ever seen. Any food she had ever been exposed to previously in her life, including most chemicals in her known universe, triggered classic allergy symptoms of hives, mucus discharge, blood-red eyes, and sneezing, as well as overwhelming, relentless colitis and chronic joint, body, and migraine-like head pain.



*Food or environmental antigens activate the immune system's T and B cells, starting the response that results in classic symptoms of allergies.*

Her physicians attempted to manage her symptoms with typical antihistamine and antiinflammatory medication. This was just a temporary fix, because meds did not even get close to addressing the underlying causes of her problem. Since it was impossible for her to eat anything that her body was even remotely familiar with, her bizarre dietary recommendations included lion steaks from Africa, snakes from exotic parts of Indonesia, bear meat from who-knows-where, etc. You think *your* food bill is high—just imagine her devastated quality of life and the cost of her routine eating plan!

Under my care, she completed a 30- to 40-day water-only fast, followed by a restricted, plant-exclusive diet, after which she was able to eat a wide variety of healthy food and roll around in fields of things that previously drove her crazy. In fact, the process and detoxification of fasting is one of the most powerful tools for addressing underlying causes involved in the mysterious development of allergy and chemical sensitivity.

The body's immune response is a well-orchestrated symphony of defense and protection. This response has evolved to respond forcefully to things that dangerously threaten the integrity of the body while responding mildly, if at all, to things that pose a minor threat. Allergic reactions to food and environmental chemicals are typically exaggerated responses to fairly nonthreatening circumstances. If you have a severe allergy to strawberries, the body is reacting as if they are a major threat, though they really aren't. Yet, consistent with the fasting experience, it is important to realize that the allergy process is remarkably affected by a variety of lifestyle and nutritional factors and can change and heal at different stages of your life, regardless of how intense it may be at its worst.

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The chemicals in your environment (food, pollen, chemical toxins) provide antigens (mostly protein molecules) that challenge the immune system. This challenge can manifest as several types of hypersensitivity or allergic reactions. Typically, food or environmental antigens activate specific white blood cells (T and B cells) of the adaptive immune system to promote the production of antigen-specific antibodies called immunoglobulin E (IgE). IgE binds to the surface of other white blood cells (mast cells) to release proinflammatory agents (cytokines) and histamine that dilate blood vessels,

increase blood flow, and constrict lung tissue, resulting in the classic symptoms of acute allergy: sneezing; swollen, red, itchy eyes; coughing; skin rashes; runny nose; etc.

There can also be a more-delayed sensitivity reaction when antigens signal antigen-antibody and protein complexes on cells or in the circulating bloodstream, which recruit and activate a series of helper clean-up cells that promote inflammation, swelling, and joint and tissue damage over longer periods of time. These delayed reactions take place days after the initial antigen exposure and play a role in autoimmune and chronic diseases like rheumatoid arthritis, asthma, migraine headache, colitis, etc.

Regardless of the type of reaction, there are several factors to consider that affect allergic sensitivity.

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## The Impact of Nutrition and the Gut Microbiota

Essentially all dietary antigens are proteins. Diets high in animal protein and low in fiber and water have the slowest transit times through the digestive tract, are the most difficult to digest, and have the greatest potential to provide antigenic protein fragments that promote allergic sensitivity. More digestible diets, however—those high in fruits, vegetables, and omega-3-rich foods high in polyunsaturated fats such as deep greens, whole grains, legumes, flax seeds, and hemp seeds—are associated with the lowest risk of allergic sensitivity.[1,2]

Typically, the most common allergenic foods across the human population are milk, eggs, wheat, soy, fish and shellfish, peanuts, and tree nuts.[3] In recent years, there has been an alarming increase in affluent Western industrialized nations in the incidence and severity of food allergies and autoimmune diseases that has coincided with dangerous lifestyle changes, including refined/compromised diets, increased antibiotic use, increased vaccination, and exposure to an onslaught of environmental toxins like glyphosate.

More importantly, a plant-exclusive diet has a significant positive impact on the extensive microbiota of the gut, which plays a major role in modulating our allergic reactions and the function of the immune system. Striking evidence clearly shows that the pathological alteration and destruction of the healthy gut microbiota (dysbiosis) is associated with increased sensitivity to food antigens and stimulates protective pathways that create allergic hypersensitivity.[4,5] This is not surprising when you consider that the environment of the colon has more immune cells than any other organ in the body and the highest density of bacteria, especially life-enhancing commensal organisms, of any environment ever analyzed on planet Earth.[6]

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A plant-based diet provides high fiber content that promotes the greatest, healthiest diversity of organisms in the gut. This high-fiber input favors genera of organisms (Lactobacillus, Bifidobacterium, Prevotella) that produce the short-chain fatty acids (SCFA) butyrate and proprionate. These SCFAs feed and maintain the healthy, plush mucus lining of the large intestine and provide innate immune protection.

Elevated cortisol from chronic stress, alcohol consumption, exposure to genetically modified foods/glyphosate, antibiotic use, and low-fiber, refined-carbohydrate diets promote dysbiosis that damages the healthy gut flora; increases toxic organisms in the gut; causes a damaged, leaky gut lining; and promotes antigen entry in the damaged gut. In dysbiosis, the microbiota stimulates the release of a class of proteins called alarmins from the mucus cells of the colon that increase allergic hypersensitivity in the intestine and throughout the entire body.

SCFAs have also been demonstrated to have supportive immunogenic activity, both locally in the gut and systemically throughout the entire body.[7] Certain supportive commensal bacteria in the gut, induced by high-fiber plant intake, increase the number of circulating helper T cells associated with protection against food allergens.[8] In fact, healthy plant food works in cooperation with bacteria-derived T cells that can migrate in blood to the small intestine, protecting against food allergies while reinforcing a healthy protective environment of the entire intestine.[9]

*Constant stress leads to exhaustion and adrenal overstimulation that results in dysregulation of the allergic response.*

## The Impact of Adrenal Function and Stress

Healthy functioning of the adrenal glands plays an important role in modulating the histamine release and inflammation that promote allergic hypersensitivity.

The adrenal glands release the hormone cortisol and other neurotransmitters that regulate the fight-or-flight stress response to help you resolve threatening and traumatic situations. Unfortunately, stress for so many people has become chronic and relentless from overwhelming relationship and life concerns. As a result, you are more likely to disengage from present-time awareness and get stuck in past traumas and/or anxieties and worries about an insecure future that may or may not occur, which can make you incapable of dealing with the stressful situations at hand.

This chronic stress drives overstimulation of the adrenal glands and chronic cortisol release, which promotes excessive inflammation, dysbiosis, damage to the gut lining, and increased sensitivity to toxins and to food and environmental antigens. Ultimately, this can cause adrenal fatigue and exhaustion that leads to a dysregulation of the immune/allergic response.

All too often, you can be overwhelmed by the relentless demands of modern life. As you get exhausted by the stress and pace of your busy life, you often lean on stimulants (coffee, sugar, chocolate, energy drinks) to mask the exhaustion and propel yourself through the day. But what is overlooked is what Dr. Herbert Shelton so brilliantly stated as the Law of Dual Effect: "The secondary effect upon the living organism of any act, habit, indulgence or agent is the exact opposite and equal of the primary effect."[10] Or, stated simply, whatever goes up has to come down with equal and opposite force. As a result, all stimulants by their nature just reinforce exhaustion and depression.

But our culture is lost on this roller coaster of stimulation and depression, essentially writing checks with no money in the bank and fostering an illusion of energy that prevents anyone from ever getting any closer to the true causes or resolution of fatigue/exhaustion of the entire body and the adrenal glands. Therefore, participating in stress response management (meditation, yoga, tai chi, etc.) and eliminating the causes of adrenal exhaustion (sleep deficiency, stimulant abuse, refined junk-food diets) are invaluable tools to decrease allergic hypersensitivity.

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## The Impact of Protein Digestion, Enzymes, and Allergy

As mentioned earlier, allergens are basically proteins and protein fragments made up of small chains of amino acids, and so the complete digestion of dietary protein is also important for overall antigen sensitivity in the body.

When food enters the stomach, certain cells release hydrochloric acid that creates the acid environment required by stomach enzymes to begin the digestion of protein. This acidic environment is carried into the small intestine to promote the action of pancreatic enzymes that complete protein digestion so that individual amino acids or small blocks of amino acids can be absorbed.[11,12] Typically these amino acids and small aggregates are too small to act as food allergens since they can't be recognized by IgE antibodies.

Unfortunately, stomach acid secretion decreases with age, alcohol use, chronic stress, long-term use of antacids,

zinc deficiency, and poor dietary choices and can compromise the digestion of protein. As a result, larger antigenic fragments of protein are available to penetrate the mucus barrier of the intestine, provoking allergy and food sensitivity. This reduction in hydrochloric acid (hypochlorhydria) has been associated with autoimmune diseases and conditions seen as pathological allergic hypersensitivity, including gastritis, celiac disease, rheumatoid arthritis, and urticaria.[13,14]

*Scratch tests are one of several ways that allergies and sensitivities are evaluated.*

Diets high in animal protein and low in plants are low in water and fiber and transit slowly through the digestive tract. This can result in the incomplete digestion and putrefaction of proteins that damage the absorptive lining of the small and large intestine, leading to the absorption of larger antigenic protein fragments that trigger allergy and autoimmune disease.

A significant number of adults in the U.S. (25-54%) are affected by dyspeptic disorders (gastritis, ulcers, erosions, and reflux), and they are often treated with antacid drugs that promote long-term suppression of stomach acid. This decreased acidity can promote adverse bacterial overgrowth in the stomach and intestines as well as interfere with the complete digestion of protein, promoting an increase in food antigens and allergic hypersensitivity.[15] Maintaining a high-fiber, plant-based diet that is free of added salt, oil, and sugar is the gentlest approach for supporting the integrity of the stomach and intestine. It will allow hydrochloric acid-producing cells to stay healthy and function at their best while optimizing protein digestion and minimizing allergenic antigen production.

*"Decreased acidity can promote adverse bacterial overgrowth in the stomach and intestines as well as interfere with the complete digestion of protein, promoting an increase in food antigens and allergic hypersensitivity."*

## Diagnosis and Treatment

There are a variety of ways that clinicians evaluate allergies and chemical sensitivities. These include scratch tests, blood tests, resonant frequency tests, pulse diagnosis, and kinesiological muscle testing, each of which has its own shortcomings. It is important to realize, however, that allergies and chemical sensitivities can come and go inexplicably at various times in your life. And while doctors can manage the symptoms of allergies with a variety of drugs (which have their own adverse effects), the drugs typically do not resolve the lifestyle choices and environmental factors that are often causing the allergic sensitivity.

The severity of symptoms and discomfort of allergies can also be reduced by eliminating offending foods and substances from the diet for extended periods of time. And while this might have some value, it also does not address the underlying causes of the problem, simply because in most cases the food is not the only problem; your overall choices are.

As you adopt a more holistic approach to improve factors of nutrition, gut health, stress, hormonal and digestive functions and possibly even incorporate healthy supportive interventions like water-only fasting, you will be amazed how you can handle and tolerate foods and chemicals that previously elicited debilitating allergic sensitivity, thereby eliminating allergic symptoms at their root cause and dramatically improving your quality of life. NHA

*For a referenced copy of this article, please email info@HealthScience.org.*

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