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FOOD ALLERGIES AND INTOLERANCES – PART II

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The prevalence of food intolerances and allergies is increasing. More and more people discover that they experience reactions to items that never bothered them before; or, if they already have allergies or intolerances, there are changes for the worse. Some people are described as "pan-allergic" or "universal reactors," meaning they have adverse reactions to almost everything. There are apparently many causes such as genetic tendencies, deficiencies, organ or gland or system dysfunction, exposure to poisons, toxic overload, denatured (altered), adulterated, and depleted foods, artificial non-foods, and more.

TOTAL LOAD

Total load refers to an individual's threshold of tolerance -- like a rain barrel that becomes full, overflows, and then produces certain symptoms. One's threshold of tolerance to external and internal insults is cumulative, relating to amount of exposure; physiological parameters (digestive health, intestinal permeability, liver or kidney function, etc.) nutritional status; physical/mental/ emotional stress; and more. Total-load overflow does not occur overnight; it gradually develops whether by daily choices or unavoidable circumstances.

For instance, perhaps Jane's migraine headaches are due to a combination of stress on her job, a deficiency of vitamin C complex and minerals that contribute to fragility and spasm of blood vessel walls, accumulation of pesticide residues from foods, overuse of her detoxification pathways from inhaling formaldehyde from her new mattress, MSG and chemical additives in her diet, and misalignment of vertebra in her neck. It may take only the removal of two or three things to sufficiently reduce her total load and give her some relief. Getting counseling or changing her job, obtaining proper nutritional supplementation, switching to organically-produced foods, covering her mattress with barrier cloth, and getting chiropractic treatments or massage therapy for her neck could solve the headache problem. The more the total load is reduced, the better the outcome.

Total body load is affected by both foods eaten and foods omitted from the diet. People with food sensitivities feel best when they consume high-quality organically-raised foods – foods without drug or hormone or pesticide residues, foods without preservatives or other chemical additives, nutrient-dense fresh foods grown or raised on high quality soil. This is an essential factor in overcoming food allergies or intolerances.

Digestive disturbances are often associated with food reactions. Gastrointestinal contamination can result from eating chemically-treated, commercially grown foods. Conversely, fresh organic foods enhance gastrointestinal balance and absorption, delivering a good quantity of nutrients to any damaged organs or tissues and increasing the defenses and function of healthy ones. When less chemically contaminated food is used, there is reduced competition for absorption of toxic chemical contaminants versus healthful nutrients.

Nutrient values of foods are altered in the farming stage by cultivation of limited genetic varieties, monocropping, mechanical disruption of soil, and the use of artificial fertilizers, herbicides, and pesticides. Persistent residues of pesticides and herbicides in the soils adversely effect crop yields, influence the quantity, quality, nutritive value, and flavors of the raw food or food products processed from it. Biodynamically grown and/or organically-grown foods have been shown to be far superior to those raised commercially – nutritional values are often vastly higher. Pesticides and herbicides can affect the carbohydrate, protein, fat, and free amino acids composition of plants, as well as their uptake of minerals from the soil. Vitamin content is negatively influenced. Pesticides and herbicides "disturb and alter metabolism of the plants to which they are applied." Each consumer has a threshold over which he/she can no longer accommodate this altered food; symptoms appear or worsen.

Commercially-raised animals are often given feeds containing items unnatural for the specific breed (such as dead animals, blood, manure, etc.) or unnatural to any animal (such as sawdust, old newspapers, shredded tires, etc.). Unnatural and cruel environments, heavy use of antibiotics and other drugs to manage unhealthy animals, hormones for quick growth, and the use of nutrient-depleted, chemically-treated, and pesticide-laden feeds all contribute to contaminated and nutritionally altered animals. Consumption of these artificially-raised animals is a perfect set-up for chemical and food sensitivities.

More foods are being genetically engineered. The cascade of chemical reactions they can produce may certainly overwhelm any apparatus for fighting it. There is as yet no way to tell what effects genetically-engineered foods may have on humans consuming them.

The diagnosis and treatment of food sensitivities has become "immensely complicated with the discovery of the adverse effects of food contaminants." Over 10,000 intentional food additives are currently used in foods. Exposure can cause changes in the immune system and just about any other area of the body. Some of these additives are: "antispoilant" chemicals, acids and alkalies, buffers and neutralizing agents, humectants, food colorings or dyes, flavoring agents, flavor enhancers (such as monosodium glutamate [MSG] to which, according to some researchers, as many as 80% of the population may react with symptoms ranging from fatigue to migraine headaches), bleaching agents, physiological-activity-control chemicals serving as ripeners or antimetabolic agents (ethylene gas, for example, speeds the ripening of bananas; maleic hydrazide prevents potatoes from sprouting), maturing agents, processing aids, sanitizing agents, clarifying agents, emulsifiers and emulsion stabilizers, texturizers, thickeners, stabilizers, whipping agents, and more. Not all artificial additives produce immediate or obvious symptoms in everyone. Problems are more evident in the highly sensitive or those with a high total load. Accumulations and combinations of these chemicals can gradually lead to symptoms and disease. Many people are allergic to even tiny amounts of these compounds. It is estimated that the average person ingests one gallon of food additives each year.

Also contributing to toxic overload are artificial sweeteners, waxes, fake fats, and any altered or refined or overly-processed non-food (supplying noxious substances and little, if any, nutrition). People are hungry – people with allergies or intolerances are **very** hungry – not for calories, but for nourishment. There is a dire need to consume whole, natural, nutrient-dense foods, foods "custom designed" to feed body and spirit. Whole foods are expertly balanced with the right nutrients in the right combinations to be absorbed and assimilated with components to aid detoxification. But the food industry has robbed consumers of the perfect fuels required for health; it creates fabricated foods not recognized or accepted by the body as real, natural food. This is a primary cause of toxicity as well as allergies and intolerances. The body has a built-in survival and balancing instinct, allowing it to signal that it can no longer tolerate the insults, that it has reached its limit. Food is grown on depleted soils with poisons; it is mutilated, mangled, colored, waxed, and embalmed with chemicals. Disruptive, harmful substances are added – from refined sugars to bad fats, from artificial flavors to manufactured chemical "nutrients." This is not because it is good for people's health. It is because it is good for business.

When food is out of balance – when it is altered, denatured, depleted, and defiled – bodies become out of balance too. When the life is taken out of food, not only does good taste go, but so does nourishment and the consumer's vitality and well-being. Technological advances have tricked many into thinking that essential parts of foods can be removed, manufactured chemicals can be added, changes to the remnants can be made, and the end products can still be called "food." The wonders of science convince people that their bodies can use such contrivances to maintain health – and that, should things go wrong, there is something that can be done to "fix" it. The complex body breaks down when degenerated, adulterated, depleted, and deformed non-food is fed into it. For one thing, allergies or intolerances to foods develop, even to foods that should be recognized as natural and good. Still, the body is remarkable, ready and willing to fight back, to repair and heal if possible.

A study on cardiovascular rehabilitation placed volunteers on an elimination and rotation diet, eliminating all refined, processed, fried, and manufactured foods. One or two types of food in their natural state in unlimited quantities were eaten at each meal. No food was repeated in any one week. Caffeine was not allowed. This resulted in needed weight loss, reduced blood pressure, significant reduction in triglycerides, increased HDL (so-called "good") cholesterol, and normalization of glucose and insulin levels. This type of natural diet "works" with many other disorders and diseases too. Elimination and/or rotation diets have successfully improved problems such as learning disabilities, arthritis, fibromyalgia, digestive disturbances, asthma, anxiety, and others too numerous to list.

When there is severe toxic overload, food recognition is impaired, malabsorption occurs, and a person becomes sensitive to most foods. A severely sensitive individual with a high total pollutant load may not even have had to be exposed to a food to be extremely sensitive to it. Evidently, recognition and metabolic sites are so dysfunctional at this stage that the individual reacts to substances such as buffalo meat or amaranth to which he/she has never been exposed. A mono-rotation diet may be needed for a while, gradually adding other foods to meals. If nutrient-rich whole organically-raised foods are eaten, nutritional status and tolerance improve. Some patients who do not respond to a classical rotary diet do respond to a

macrobiotic diet (on a four-day rotation). Some people do best with mostly raw foods, others with mostly cooked foods. A trial-and-error period may ensue, and needs may change as health improves. The common thread is the importance of organically-raised, unrefined, minimally-processed, fresh, additive- and preservative-free foods.

The growing prevalence of complex, multisystem disorders in persons with allergies or intolerances indicates weakened and compromised bodily systems. Elimination and rotation diets alone may not always produce significant improvement because of a failure to reduce or eliminate a sufficient number of factors contributing to total load – from indoor air pollution to fluoridated water, from nutritional deficiencies to psychological issues – any stresses that may exist. The clinician and patient must work together as a detective team to discover the clues and appropriate actions. Fortunately, most people suffer with only one or a few allergies or intolerances. [i]

FOR EXAMPLE

The alteration of foods and their nutrient supply over the course of the last century or so has had a long-term negative impact on the ability to maintain optimum human health and definitely worsens or initiates chemical and food sensitivities. For example, wheat and cow's milk are foods to which many people develop an allergy or intolerance.

Grain proteins (including gluten, gliadin, and glutenins) have been blamed for many symptoms and disorders. Gluten sensitivity can manifest, not only in celiac disease, but in dermatitis herpetiformis, neurologic disorders, and many other conditions. However, some people who cannot tolerate wheat can handle spelt and/or kamut – other forms of wheat that also contain gluten. These ancient grains have not yet been subjected to the toxic farming and excessive processing as has common wheat. Barley, rye, oats, quinoa, millet, buckwheat, amaranth, and tef also contain gluten, though in lesser amounts than wheat. Some or all of them are well tolerated by many wheat-sensitive individuals. About 90% of the wheat grown is soft wheat, lower in proteins (like gluten) than hard or durum wheat. So more than gluten may be involved.

Over the last 100 or more years, wheat has changed drastically and the amount in the average diet has increased considerably. Adverse reactions to wheat "may be linked to toxic pesticides and/or herbicides in the grains." Wheat is now exposed to high levels of pesticides, fungicides and other chemicals when grown. The grain undergoes a bewildering array of processes before being used in products. The germ – rich in protein, minerals, vitamin E complex, B vitamins – is removed as is the bran, the fiber part that also contains nutrients. Until about 50 years ago, wheat was stored for months and allowed to age to improve flavor. Nowadays, chemical oxidizing agents are used like potassium bromate to age wheat within 48 hours. The natural yellow color of flour is bleached away with chemicals such as benzoyl peroxide. To neutralize the bleaching agent, another chemical is added. Irradiation is commonly used to avoid insect contamination. Finally, preservatives and conditioners are added to improve shelf life and texture. The grain is completely transformed! Most nutrients are lost. A paltry few artificial chemicals called vitamins and minerals are added, but the body cannot easily assimilate them and cannot use them as natural food complexes. Wheat in bygone days was allowed to naturally germinate or was naturally leavened, making it easier to digest and more nutritious. The modern, overly-processed excuse for wheat can contribute to intolerance to **any** form of wheat. Virtually all mass-produced wheat is hybrid, created offspring of differing parents, which can alter basic makeup.

Milk **allergy** is a reaction to milk proteins (as casein or whey). Those with true dairy allergy – or milk protein intolerance (if no immune response is found) – may experience symptoms that vary greatly in intensity and severity. Reactions can lead to anaphylactic shock. Milk **intolerance** is often an inability to digest lactose, the main sugar in milk. Whereas 2 to 4% of children have milk allergy, an estimated 10% of Americans suffer from lactose intolerance. They purportedly do not produce enough of the enzyme *lactase* to digest all the lactose. When excessive undigested lactose reaches the large intestine, it can cause bloating, gas, cramps, nausea, and diarrhea. Some dairy products (like natural cheeses, ice cream, yogurt) contain much less lactose than milk does so may be tolerated.

During the past century or so, cows and their milk have been subjected to much human intervention. Cows are raised in unnatural environments, fed foods not natural for them and foods laced with pesticides, given hormones to boost milk production, subjected to antibiotics and other drugs to mask their unhealthy state. The milk is pasteurized, homogenized, chemically spiked.

Consider just the effects of **pasteurization**. It: Can be used to mask low-quality, "dirty" (as from insect and fecal material) milk. Destroys the souring bacteria of milk so milk putrefies instead of souring. Destroys beneficial enzymes and hormones, taking the living principles out of milk. Impairs the flavor (a sign of inferior nutrition), diminishes the nutrient value, and devitalizes the milk. Greatly depletes vitamin content such as vitamins A, C, and B

complex. Precipitates calcium and other minerals, making them unavailable for use. Harms and alters the fats to unnatural forms. Significantly reduces the biological value of – damages -- the protein by denaturing amino acids. Curtails absorption and utilization of nutrients. Makes natural sugars or carbohydrates less available metabolically. Destroys the active "anti-stiffness factor," a steroid nutrient. The list can go on.

Lactose, the primary sugar in milk, appears as *alpha*-lactose in raw milk, but is changed to *beta*-lactose with pasteurization. *Beta*-lactose is more rapidly absorbed into the bloodstream. Lactose intolerance is the inability of the body to split lactose into glucose and galactose. This occurs either because of the absence of the enzyme *lactase* in the small intestines OR the deactivation of *lactase* by pasteurization. Either way, some "whole" lactose is absorbed through the intestinal wall and disposed of by the kidneys; the rest passes into the large intestine where intestinal bacteria work on it. The more work the bacteria perform, the more "gas" is produced, causing flatulence, abdominal pain, bloating, and diarrhea. The unavailability of lactose in its natural, unheated *alpha* form often leads to diminished *lactase* secretion by the small intestine and thus to intolerance. Some people with severe milk intolerance not only tolerate raw milk, they thrive on it! Some cannot tolerate ANY form of milk.

Fermented pasteurized milk products, such as yogurt or kefir, are often easier to digest. The bacteria that transform or ferment the milk break down or "digest" some of the *beta*-lactose. Once in the small intestine, the fermented milk bacteria further cleave much of the remaining lactose. Fermented dairy products should contain live, active cultures. [ii]

DIGESTION

Digestion is a problem for most allergic or intolerant people. Some have low (or virtually absent) levels of hydrochloric acid in their stomachs; others have elevated levels. Those with low gastric acid need hydrochloric acid supplementation, but often cannot tolerate it, or it does not alleviate all digestive problems. Many people are deficient in digestive enzymes and need enzyme supplementation with substances such as pancrease, papase, trypsin, lipase, etc. Some have an imbalance of bacterial flora in the gut. Probiotics such as acidophilus may be needed to rebalance the flora. Refined sugars, other refined foods, alcohol, some drugs, and stress overstimulate the pancreas, impairing its ability to produce and secrete digestive enzymes as well as its ability to neutralize the acid coming from the stomach with bicarbonates. Excessive acid, which can destroy digestive enzymes, irritates the gut lining. Innumerable toxic chemicals and toxic foods over-stress the liver, one consequence of which is lowered bile output and lowered ability to digest fat. The most important aspects of improved digestion are the reduction of total body pollutant load and the improvement of nutritional status.

All types and degrees of malabsorption may occur in the allergic or intolerant patient, ranging from mild specific nutrient malabsorption to general calorie malabsorption. There are usually multiple deficiencies of nutrients due to failure to either incorporate or absorb them. Pollutant damage may be involved; supplementation may correct this damage IF the pollutants are withdrawn to reduce total load. In some cases, supplementation may not help immediately. Sometimes the metabolic rate is too high due to the body's attempts to detoxify the toxic overload and nutrient requirements are used up. Patients with diarrhea or loose stools have excessively rapid transient time, so nutrients are not properly absorbed. Those with constipation may appear to have some forms of what old medical books referred to as *autointoxication*, a retention or self-production of poisons or toxins. The body interprets certain foods as being poisonous or is unable to properly digest, absorb, and assimilate foods. Urinary leaks of various nutrients may occur. Eventually, nutrients can be properly absorbed and used if underlying causes are approached.

Scientists studying allergies and intolerances contend that food reactions are often due to a damaged, inflamed, and more permeable mucous-membrane lining of the esophagus, stomach, and intestines. In other words, an individual's digestive tract can become too permeable (a so-called "leaky gut"), allowing larger than normal food particles (and sometimes toxins and other chemicals) to enter the bloodstream improperly and cause reactions. Though it seems paradoxal, a hyper-permeable gastrointestinal tract frequently causes lowered nutrient absorption. Anything that insults or injures the lining of the intestines can cause inflammation and increased permeability. This includes any number of nutritional deficiencies, pancreatic and other digestive insufficiencies, irritating or toxic chemicals (such as caffeine, alcohol, food additives, pesticide residues, etc.) refined or processed foods (especially sweets), drugs (like NSAIDs -- Motrin, Aleve, Advil, aspirin, etc.), preexisting food allergies or intolerances, chemicals to which one is sensitive, intestinal dysbiosis (disruption of normal flora, often due to antibiotics), protozoan parasite toxins, psychological stresses, and more. Refined, processed, chemical-laden foods increase vulnerability to leaky gut and make healing it much harder. These "foods" lack healing nutrients, so doubly lower nutrient status. Once the intestinal lining becomes damaged and/or inflamed, the

spaces between the gut-lining cells enlarge, allowing larger-than-normal food particles to slip through or leak into the bloodstream. The immune system does not recognize these larger particles as "normal," so begins to engulf, break down, and get rid of these substances as "foreign" entities. Even harmless, totally natural foods may then be classified as toxic by the body.

Injured or irritated intestinal linings do not secrete digestive enzymes adequately to digest foods properly or absorb nutrients. Carrier proteins are damaged, so malabsorption and nutritional deficiencies occur. These deficiencies inhibit the ability of the intestines to heal and can cause any number of symptoms in the body. When the detoxification pathways that line the intestines are compromised, chemical sensitivities can arise. The leakage of toxins – substances that were never supposed to be absorbed through the intestinal walls – overburdens the liver and kidneys so that the body is less able to handle everyday chemicals in food, water, and air. Many foods will then cause symptoms that never did before because the body's detoxification system is unable to cope with the multiplicity of chemical additives, dyes, preservatives, pesticides, refining, and alterations common to commercial food.

Abnormal or inadequate bacterial flora of the intestines may have an important role in food intolerance. Abnormal flora may arise particularly following use of antibiotics, surgery, radiation, or gastroenteritis, all of which may depress the colonization resistance of the gut and allow new organisms to become established in the colon. Overgrowth of *Candida albicans* in the intestines is one possibility. The huge number of fungal elements introduced into foods by the industry for various reasons (including amylase [bread], hemicellulose [fruit juices], and citric acid acidulant [virtually all processed foods and soft drinks]) can affect intestinal bacterial balance. There is now considerable evidence indicating the colon breaks down food residues by fermentation using its enzyme-producing bacteria. Some scientists believe "a healthy gut flora reduces the risk of food hypersensitivity."

In order to heal the injured digestive tract, causes must be removed. Foods to which one has developed a sensitivity must be avoided. NSAIDs or other irritating drugs may need to be limited or omitted. Chemicalized processed 'nonfoods,' caffeine, alcohol, and other irritating, compromising items should be avoided. Digestive supplements may be needed to assist digestion and absorption. Probiotics (including acidophilus, bulgaricum, bifidus, and others) may be important to reinoculate the intestines with beneficial bacterial flora. Traditionally, probiotics came from naturally fermented foods such as yogurt, kefir, miso, sauerkraut, etc. Prebiotics are also helpful -- "food" for friendly bacteria found in whole grains, beans, starchy vegetables, and fruits. One prebiotic is FOS, fructo-oligosaccharides, found in Jerusalem artichokes, onions, and garlic. FOS supplements are not very stable and not all friendly bacteria eat FOS, so it is better to obtain FOS and other prebiotics from whole, natural foods. Food supplements to improve nutritional status can be invaluable, though caution should be used to avoid ingredients that are not well tolerated. Many supplements can aid in repairing intestinal walls as well as support detoxification and general healing. But synthetic or fractionated vitamins, minerals, amino acids, or other parts or imitations of foods often become allergenic and do not deal with the cause of the problem – they are not natural to the body and simply add to the total load.

To restore good digestive tract function, only whole natural foods should be consumed. Foods should be chewed thoroughly, only clean water (such as natural spring water) should be used, mealtimes should be peaceful, physical exercise should be regular, emotional stresses should be resolved. Stress – whether physical, mental, emotional, environmental, dietary, thermal, or chemical -- contributes to allergies and intolerances by changing the body's physical and mental responses. The lining of the digestive tract is essential to detoxification and contains 40 to 60% of the body's immune tissue. A stressed and over-stimulated immune system can become hypersensitive to various chemicals and foods. It is therefore not unusual that most all individuals with food allergy or intolerance have some digestive disruptions. "Proper digestion is a key factor in recovering from food sensitivities." [iii]

HOW LONG?

Nothing works better than avoidance for the treatment of food allergies and intolerances. After total avoidance for anywhere from three to 48 months, tolerance may return. Small amounts of the offensive food can be tried -- each person must experiment to find out how much he/she can tolerate. After a period of eating small amounts of the food without experiencing a reaction, it may be incorrectly assumed that the sensitivity no longer exists. Then more of the food is eaten, old habits reinstated, and symptoms may reappear. If this occurs, it is necessary to stop eating the food and see if there is improvement.

A study in Norway involved patients with food intolerance to wheat and/or dairy who had been studied four years previously and had since eliminated those foods with positive results. Eating normal amounts of these foods again significantly

increased symptoms such as intestinal discomforts, headaches, joint and muscle pain, etc. Even after four years of abstinence, symptoms may return.

For some people, a rotation diet (in which each type of food is eaten only once every four days) helps to reintroduce foods. Once allergies or intolerances have been identified and these foods eliminated from the diet for 60 to 90 days, most can be reintroduced – one food at a time every four days -- as long as a rotation diet is maintained. If there are no symptoms within 48 hours, then it is safe to try the food again in four days. If there is still no difficulty, the food may be added to the regular rotation diet. However, if symptoms are experienced every time the food is eaten, the item should be avoided again for six months, then tried with a 10-day interval between exposures. If symptoms occur with each exposure to the food, it is possible that there have been inadvertent exposures when the person thought the food was being avoided, OR there is a fixed food sensitivity and the item must be totally eliminated from the diet. In many cases, a rotation diet can be discontinued once sufficient healing takes place. [iv]

OTHER THERAPIES

Desensitization with injectable homeopathic remedies has aided some people, often in addition to other treatments. Homeopathic remedies are used to treat sensitivities with classic or special extracts of allergens prepared by diluting the substances homeopathically.

Nambudripad's Allergy Elimination Technique (NAET) combines kinesiology and acupuncture or acupressure to test and treat allergies and intolerances. Neuro Emotional Technique (NET) involves basic muscle testing to remove emotional blocks that prevent regaining one's health, thus treating biochemical, structural, and emotional aspects. Enzyme potentiated desensitization (EPD) utilizes small doses of allergens and the enzyme beta glucuronidase to desensitize people. The enzyme is supposed to increase and alter the effects of the antigen as a "messenger" in the immune system. Sublingual food extracts can be helpful, though they are not a panacea substituting for dietary and environmental clean-up measures. They are used for symptom control and are usually given before exposure to the offending food.

Although these and other therapies provide relief for some people, it is still important to follow a healthy diet of low-toxic, whole, prepared-from-scratch foods with minimal processing and refining in addition to other methods of reducing total load. Supplementation and digestive aids are usually required. Drugs may relieve symptoms but do not correct the underlying conditions. Allergy injections do not directly help food allergy. They indirectly stimulate the immune system, further stressing the body. Occasionally, people have died when they were injected with foods.

Looking to the healthiest people on the planet, it is not a coincidence that societies that eat simple, organically-raised, unadulterated, unaltered foods are comparatively free of chronic diseases including food allergies and intolerances and live into old age with health, energy, and independence. Specific foods and proportions may differ from culture to culture, but the basic principles remain the same. [v]

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