

Review on How to Reverse Autoimmune Diseases

Autoimmune diseases have become a huge health burden, more than 80 diseases have been classified as autoimmune. It affects more than 700 million people around the world and that number continues to rise. In the 21st century, 60 million people are facing an epidemic of allergic, 30 million people from asthmatic and 24 million people from autoimmune.[1]

A healthy immune system recognizes, identifies, remembers, attacks, and destroys bacteria, viruses, fungi, parasites, cancer cells, or any health-damaging agents not normally present in the body. The immune system may also be suppressed or weakened as a result of lifestyle factors (I e, intake of alcohol, caffeine, tobacco, drugs, sugar, poor diet, and lack of sleep) not associated with a degenerative disease. These lifestyle factors can have a substantial effect on the trends of autoimmune diseases. A defective immune system may cause throughout the host by directing antibodies against its own tissues.

Autoimmune diseases are characterized by the body's immune responses being directed against its own tissues, causing prolonged inflammation and subsequent tissue destruction. Autoimmune disorders can either cause immune-responsive cells to attack the linings of the joints (resulting in rheumatoid arthritis) or trigger immune cells to attack the insulin-producing islet cells of the pancreas (leading to insulin-dependent diabetes mellitus).

Age is recognized as an important factor in the appearance of autoimmune disease. As we age, our autoimmune system declines in its effectiveness due in large part to oxidative damage caused by the recurrent presence of significant amounts of free radicals. In addition, proteins can become glycosylated, that is, a sugar molecule is attached to the protein. The accumulation of these glycosylated proteins in the body affects the immune system because the

immune system sees them as altered proteins with different structure and function [2, 3, 4]

Dehydroepiandrosterone (DHEA) is a prosteroidal hormone that decreases with age. Decreases in DHEA levels have been linked to a number of chronic and degenerative diseases including cancer, coronary artery disease, depression, stress disorders, and neurological functioning. [5]

The body is made up largely of proteins, so its health depends upon its freedom from damage (as through oxidation or glycation) as well as its timely removal as part of normal protein turnover. The body's antioxidant system and other lines of defense cannot completely protect proteins. Nature's second line of defense is the body's system for repairing or removing damaged proteins. While some protein repair mechanisms exist, it is difficult for the body to repair most protein damage. Yet, it is essential to efficiently remove aberrant and unneeded proteins to fully protect against autoimmune diseases.

The continued exposure to heavy metals and environmental pollution may overload the immune system. On a daily basis, we battle with pesticides, herbicides, chemical fertilizers, industrial wastes, cigarette smoke, and automobile exhaust. Our air, water, and food (in particular) are full of toxic substances. There is no doubt that these toxins play a role in immune dysfunction. Even substances considered by most people as safe impair immune function. Sugar consumption in all forms (glucose, fructose, and sucrose) will impair the ability of white cells to destroy biological agents. This effect begins within a half hour of consumption and lasts for 5 hours. After 2 hours, immune function is reduced by 50%. [6, 7]

Oxidative stress plays a role in autoimmune

diseases. It can be compared to a piece of metal rusting and results from the action of damaging molecules (ie, free radicals), which are a natural byproduct of the body's metabolism. Free radicals are not only produced by our bodies, but are also ingested from toxins and pollution in the air we breathe. Oxidative stress that results in DNA damage is the root cause of physiologic and pathologic diseases aging, atherosclerosis and cancer.

Chronic systemic inflammation is related to several autoimmune disorders, such as lupus, rheumatoid arthritis, Sjogren's syndrome, and fibromyalgia etc. Inflammation can be traced to destructive cell-signaling chemicals known as cytokines, which contribute to many degenerative diseases. [8]

Certain nutritional supplements and low-cost prescription medications will often lower cytokine levels and control the inflammatory state. The autoimmune system needs a good nutritional foundation to alleviate or reverse lifestyle autoimmune dysfunction and assist with combating fully developed autoimmune diseases. The fundamental causal basis for autoimmune system boosting was shown in an early study designed to measure the serum concentrations of vitamin E, beta-carotene, and vitamin A in patients prior to developing rheumatoid arthritis or systemic lupus erythematosus.

Supplementation with omega-3 essential fatty acids (EFAs) from fish, flaxseed, or perilla oils--along with borage oil, evening primrose oil, or black currant seed oil, which contain the essential omega-6 fatty acid gamma-linolenic acid (GLA)--can alleviate many symptoms of autoimmune disease through their anti-inflammatory activity.

Antioxidants are a broad group of compounds that destroy or neutralize free radicals in the body; thus, they protect against oxidative damage to cells caused by normal aging or daily exposure to pollutants and toxic substances. Antioxidants are found naturally in healthy

food, especially fruits and vegetables. The most effective antioxidants include vitamin C, vitamin E, green tea extract, beta-carotene, grape seed-skin extract, coenzyme Q10 (CoQ10), and selenium. Vitamin D may be a critical missing link in virtually all autoimmune diseases. Lower vitamin D levels were linked with more aggressive lupus autoimmunity. [9]

Enzymatic antioxidants such as superoxide dismutase (SOD) and glutathione levels can be considered as indicators of oxidative stress. Eating plenty of sulfur-rich vegetables like onions, cabbage and broccoli aid in methylation, a biochemical pathway that produces glutathione naturally. Hence, makes an individual less prone to oral diseases including periodontal, mucosal, immune-mediated, malignancies. Antioxidants have a chemopreventive potential to reduce betel quid-associated premalignant and malignant lesions. [10]

GI tract is your gateway to health. It houses 80 percent of your immune system, and without a healthy gut it is nearly impossible to have a healthy immune system. Intestinal permeability is often disrupted by health conditions such as rheumatoid arthritis, Crohn's disease, pancreatic dysfunction, and food allergies. Aging, stress, medications, and alcohol consumption also alter permeability, compromising the barrier that separates food and intestinal bacteria from the rest of the body. The fatty acids DHA (from fish oil) and GLA (from borage oil), decrease inflammation and improve intestinal functioning.

Stress is a major risk factor in developing disease. Even prolonged low-level stress stimulates the adrenal glands to produce cortisol, which in excess impairs immune function. Lack of proper rest and sleep, depression, and emotional disturbance contribute to immune dysfunction. Therefore, to balance the immune system, one must balance the mind and emotions. Another antidote to stress is an amino acid found in green tea called theanine. Although theanine creates a tranquilizing effect on the brain, it appears to

increase concentration and focus thought. [11]

The liver plays a critical role in all aspects of metabolism and health. It is important in the synthesis and secretion of albumin (a blood clotting protein), in the storage of glucose, and in the synthesis of vitamins and minerals. Because the liver has a major role in the purification and clearance of waste products, drugs, and toxins, disease states may be improved by supporting liver function. The herb milk thistle and its components silymarin and silibinin have two therapeutic mechanisms. First, they alter the structure of the outer cell membrane of the hepatocyte to prevent penetration of liver poison into the interior of the cell. Second, they stimulate the action of nucleolar polymerase A, resulting in an increase in ribosomal protein synthesis, thus stimulating the regenerative ability of the liver and the formation of new hepatocytes. [12, 13]

In conclusion, Autoimmune disease is not curable, but can be manageable, and there's so much we can do naturally to put our autoimmune into remission.

Followings are five strategies that restore balance to the immune system, help get people off medications, get symptom free, and reverse their disease.

1. Heal your Gut
2. Optimize your diet by adding green tea and turmeric and avoid refined table salt
3. Reduce the toxic burden
4. Heal your infection
5. Relieve your stress

-Amy Myers 2017

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References

1. Mark Hyman, Eat Fat, Get Thin Beta Test Program Manual. Hyman Enterprises, LLC 2015
2. Monboisse, J.C., Rittie, L., Lamfarraj, H. et al. In vitro glycooxidation alters the interactions between collagens and human polymorphonuclear leucocytes. *Biochem. J.* 2000 Sep 15; 350(Pt. 3): 777-83.
3. Sasaki, N., Toki, S., Chowei, H. et al. Immunohistochemical distribution of the receptor for advanced glycation end products in neurons and astrocytes in Alzheimer's disease. *Brain Res.* 2001 Jan 12; 888(2): 256-62.
4. Collison, K.S., Parhar, R.S., Saleh, S.S. et al. RAGE-mediated neutrophil dysfunction is evoked by advanced glycation end products (AGEs). *J. Leukoc. Biol.* 2002 Mar; 71(3): 433-44.
5. Straub, R.H., Konecna, L., Hrach, S. et al. Serum dehydroepiandrosterone (DHEA) and DHEA sulfate are negatively correlated with serum interleukin-6 (IL-6), and DHEA inhibits IL-6 secretion from mononuclear cells in man in vitro: possible link between endocrinosenescence and immunosenescence. *J. Clin. Endocrinol. Metab.* 1998 Jun; 83(6): 2012-7.
6. Sanchez, A., Reeser, J.L., Lau, H.S. et al. Role of sugars in human neutrophilic phagocytosis. *Am. J. Clin. Nutr.* 1973 Nov; 26(11): 1180-4.
7. Bernstein, J., Alpert, S., Naus, K.M., Suskind, R. Depression of lymphocyte transformation following oral glucose ingestion. *Clin. Res.* 1977; 25(3): 534A.
8. Brod, S.A. Unregulated inflammation shortens human functional longevity. *Inflamm. Res.* 2000 Nov; 49(11): 561-70.
9. Ritterhouse, L.L., et al., Vitamin D deficiency is associated with an increased autoimmune response in healthy individuals and in patients with systemic lupus erythematosus. *Annals of the rheumatic diseases*, 2011. 70(9): p. 1569-74.
10. Jeng JH, Kuo ML, Hahn LJ, Kuo MY. Genotoxic

and non-genotoxic effects of betel quid ingredients on oral mucosal fibroblasts in-vitro. *J Dent Res* 1994;73:104-8.

11. Juneja, L.R. et al. L-theanine-a unique amino acid of green tea and its relaxation effect in humans. *Trends Food Sci. Tech.* 1999; 10: 199-204.

12. Flora, K., Hahn, M., Rosen, H., Benner, K. Milk thistle (*Silybummarianum*) for the therapy of liver disease. *Am. J. Gastroenterol.* 1998 Feb; 93(2): 139-43.

13. Luper, S. A review of plants used in the treatment of liver disease. I. *Altern. Med. Rev.* 1998 Dec; 3(6): 410-21.

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