



Cornerstone of Life  
Healthy Living for Mature Adults

## ((( Healthy Living Alert )))

### **Glyconutritional Research and Four Prevalent Types of Autoimmune Disease**

**Multiple Sclerosis:** MS is an autoimmune disease in which the body's immune system attacks and destroys the protective myelin sheath that surrounds nerve cells in the brain and spine. After years of abuse, the nerve cells become hardened and develop scars and lesions. The disease is fairly common in the U.S. and mainly affects young adults with a northern European descent. Genetics and poor nutrition are the two most likely sources of this chronic disease, although the exact cause is still debated. One of the common treatments for MS is the injection of interferons. Unfortunately, this technique can cause debilitating damage to the liver. Researchers in 1994 released a study in the Biological and Pharmaceutical Bulletin showing that supplementation of the glyconutrients helps the body to produce its own interferons. Those produced by the body target the problem area and thus provide the same benefits without the liver damaging side effects.

**Diabetes:** Diabetes is a disease caused by the body's inability to handle and process the sugar glucose. There are two basic types. In the first type an autoimmune reaction causes destruction of the pancreatic cells which produce insulin. In the second type the insulin cannot communicate with the cells to deliver their glucose. Insulin is the delivery protein that picks up the glucose from the blood and delivers it to the cells. The insulin communicates with the cells via the glyconutrients and the lack of even one can halt the delivery. A study documenting the stimulating effects these glyconutrients have on the pancreas can be found in the journal, Handbook of Experimental Pharmacology. As seen in the journal Phytomedicine, the glyconutrients also have been seen to significantly reduce elevated blood sugar levels by allowing the insulin to properly communicate with the cells delivering the glucose.

**Fibromyalgia:** Fibromyalgia is a widespread musculoskeletal pain and fatigue disorder for which the cause is widely debated and there is no known cure. The features or effects of Fibromyalgia can vary widely, but a few core symptoms affect almost all sufferers. These complications can include pain, fatigue, sleep disorders, depression, allergies and irritable bowel syndrome. The key feature of Fibromyalgia is pain. When tissue is damaged or inflamed, the body releases a protein called Natural Growth Factor or (NGF) that induces mast cells to release serotonin. Serotonin sensitizes pain receptors so that the area is guarded and protected from further damage. The problem with Fibromyalgia is that there is no apparent

tissue damage or inflammation and so the trigger for sensitization has misfired. Researchers have released a study in the Journal of Integrative Physiological and Behavioral Science in which they stated that glyconutrients may be crucial in the release of NGF. If NGF is not improperly released the pain receptors are not sensitized.

**Asthma/Allergies:** While some would argue about the inclusion of these two health issues with autoimmune diseases, there is no argument that the cause of their symptoms are related to a faulty immune response. When it comes to asthma and allergies, the body over reacts to relatively harmless invaders. Allergic reactions can result in congestion, itching, sneezing, etc. In Asthma, irritation causes the lungs to constrict and breakdown. In extreme cases these conditions can cause debilitation or death. The immune system reacts to invaders by releasing antibodies and histamines to destroy them. If this happens too often healthy tissue may suffer. In the Journal of Immunology, researchers found false antibody production was significantly reduced when subjects were issued glyconutrients prior to exposure to ragweed. Also, Japanese researchers found addition of the glyconutrients inhibited false histamine release, protecting healthy tissue.

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“Excerpts from various Glyconutrition articles”