

A Dietary Cause of MS

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There have been many alternative therapies such as diet revision proposed to help slow MS progress and to offset various debilitating symptoms of the disease. It is very hard to evaluate the usefulness of many of these suggested treatments because they tend to be based solely on anecdotal evidence. It is important to realize that, unlike most other therapies, diet revision is backed by substantial scientific evidence and theory as well as by numerous testimonials. The purpose of this note is to briefly review the scientific rationale for using diet revision. Not only is it safe and essentially no extra cost, but it is also directly linked to a scientifically plausible cause for MS. Thus anyone with MS would be wise to seriously consider using it.

First of all it is useful to stand back and view MS in the big picture of human diseases. There are two main types of diseases. We are all familiar with infectious diseases which are caused by invading microscopic life forms which create biochemical problems in our bodies. The discovery of the Germ Theory by Pasteur 150 years ago revolutionized medicine and resulted in a much longer life expectancy for humans as we learned to control infections.

However I am sure everyone recognizes that our society is now plagued by a second general family of diseases which are not readily related to infectious agents. This second type includes heart disease, stroke, many cancers and most autoimmune diseases, all of which cause much suffering and death in our society. Unlike the infectious diseases, these diseases have a major genetic component and often run in families. MS clearly fits with this second group of diseases which currently are labelled as "of unknown cause" by conventional medicine.

The best explanation for these diseases is the Genetic Discordance Theory which was published in the New England Journal of Medicine in 1985. This theory provides a rational explanation for these diseases in a simple, yet elegant fashion. It states that they are caused by biochemical malfunctions generated in our bodies by non-living substances with which an individual's genes are not compatible. It is well established that our genes are essentially the same as those which existed in our species 40,000 years ago and which were well adapted and compatible with the environment that existed at that time. Thus the main disease-causing substances are those which have been introduced or greatly increased in our environment since that time. Notably many of these "new" substances have been added only within the last 150 years.

As noted earlier these diseases are due to biochemical malfunctions and, in MS, this malfunction is expressed as an attack on an individual's central nervous system by their own immune system. Obviously one of the prime suspects for causing such a malfunction has to be our food supply which provides almost all of the biochemicals which run the body (we are what we eat!). The key question here is "What are the new and different foods which have been added to our diets in the last few thousand years?" The types of foods eaten by our distant ancestors included mainly fruits, vegetables and lean wild meat (low fat, little saturated fat). Today we consume mainly dairy products, glutenous grains, sugar, chemically altered oils and high fat meats which contain mainly saturated fat. These are all "new" foods for which our genes are not well adapted. Thus it is painfully clear that we are trying to run a car which was built for diesel fuel on high octane gasoline.

Various scientific research studies strongly support this theoretical argument that MS is caused mainly by eating foods which are not compatible with our ancient genes. Detailed statistical studies have clearly shown that MS occurrence correlates very well with the consumption of dairy products, glutenous grains and saturated fats. For example MS is almost five times as common on the Canadian Prairies as it is in the fish-eating areas of Newfoundland.

Another question is of course "how do these new, offending foods cause MS?" Again a new theory provides the answer. The currently favoured explanation for autoimmune disease is that certain foreign proteins have a molecular structure similar enough to "self" proteins that the immune system of some genetically susceptible individuals confuses self proteins with the foreign ones. In MS the immune system attacks central nervous system tissues because, having been activated by a foreign protein, it mistakes the CNS self proteins for "foreign" ones. This theory is known as Molecular Mimicry and is widely accepted throughout the medical community.

Medical researchers appeal to viruses and bacteria to supply the foreign proteins which cause molecular mimicry and activate the immune system against self. Importantly it has been recently established that various food proteins resemble both self and viral proteins and have the potential to cause molecular mimicry. This is not surprising given our cells are built from molecules derived from foods. Thus, given all the other data available, it seems most reasonable to explain MS as caused by foods which have lately been introduced to the human diet and which contain proteins which closely resemble those in the human central nervous system. Of course only those persons with a genetic makeup such that their immune system cannot distinguish CNS self proteins from foreign ones will contract MS.

The saturated fats, which have been greatly increased in our diets, play a major supporting role in MS by promoting and increasing the inflammatory, immune actions started by the food proteins. Saturated fats favour the production of series 2 prostaglandins (hormones) which are inflammatory. This contrasts with polyunsaturated fats which favour the production of series 1 and 3 prostaglandins which are anti-inflammatory.

The above evidence is essentially all circumstantial. A key question is "Have we any solid proof that foods can cause autoimmunity, (smoking gun evidence)?" The answer to this is yes we have. Scientifically unassailable studies of dietary factors and the occurrence of Type 1 Diabetes in rats has shown beyond a doubt that proteins derived from wheat, soy and dairy cause type 1 diabetes. Thus food proteins can cause T cell-mediated, organ-specific autoimmunity.

Clearly if various foods are one of the primary causes of MS it would be wise to avoid the potentially problematic foods. Obvious foods to avoid are dairy products, gluten grains, beans, eggs, red meats, margarine, refined oils and yeast. These all contain proteins, saturated fats and/or altered fats which are potentially very harmful. It is also wise to significantly reduce sugar and saturated fat intake. Other specific foods may be problematic for a given individual and various blood allergy tests and elimination diet techniques are useful in uncovering these.

It is important to realize that such tests will not identify the foods primarily responsible for the immune reactions which result in MS. Such foods produce cell-mediated reactions whereas the blood-allergy tests only identify foods which result in humoral (antibody production) reactions. Humoral reactions may also play a role in MS and that is why it is wise to avoid foods identified on the tests as well as the foods listed above which are the prime suspects in MS. These foods must be avoided regardless of the results of blood-allergy tests.

The bottom line is that there is abundant scientific evidence that various foods are a prime cause of MS and thus diet revision is an excellent strategy to greatly slow or even halt MS progress. Research into dietary factors and MS is urgently required because it must be established beyond a reasonable doubt how beneficial diet revision is and whether or not it can complement or replace current drug therapies which have many unpleasant physical and financial side effects. Support DIRECT-MS