The Science NOT Opinion e-Newsletter
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PEOs — The Ultimate Natural Zika Eliminator?

The following comes directly from EFA expert Paul Beatty of Canada who studied with the late Dr. David Horrobin — world renowned EFA scientist who pioneered and advanced our understanding of EFAs and their metabolic pathways.

I edited his material with respect to derivatives and fish oil because those of you familiar with my work already know that derivatives are made “as needed” by your body. Please view the startling video, ”What’s Wrong with Fish Oil;” at brianpeskin.com

Science has much more to offer people in protecting us from the impending Zika crisis, than staying indoors, unsing mosquito repellant, and staying "covdered up."

The reason for this lack of shared knowledge and non-communication is simple---there is no money to be made in telling people what to eat to protect themselves and what not to eat to keep their immune systems functioning correctly. Furthermore, changes in lifestyle meet with poor compliance by consumers.

Enveloped viruses (most viruses we know of) are coated by lipids (fats) and enter our cells and into the lipid structure of our cell membranes. It is the **composition of our complex cell membranes as a barrier that determines resistance to the viruses** gaining access to our cells. Long Chained Polyunsaturated Fatty Acids and Medium Chained Saturated Fatty Acids prevent viruses from entering our cells by disassembling them. LCPUFA (Long Chained Polyunsaturated Fatty Acids) metabolites like GLA, Arachidonic Acid, EPA and DHA are the most powerful at inactivating viruses because they have been desaturated by the Delta 6, 5, or 4 enzymes.

A deficiency of both PEOs — parent Omega 6 (Cis-linoleic) and parent Omega 3 (Alpha Linolenic) in their BIOLOGICALLY ACTIVE FORMS has made the general population more and more susceptible to viral infections.

The reason for this has been the large amounts of processed (biologically inactive) oils and fats consumed in today’s processed food. **Most of these processed oils are Parent Omega 6 (Linoleic Acid). They are biologically dead / not fully functional for the most part, and will not desaturate and give rise to critical eicosanoids that are necessary to regulate cellular activity including the immune response (i.e. PGE1).**

Since over 90% of the North American food consumed is now processed--it is easy to see why almost **everyone is deficient not only in biologically active Omega 3's but more so deficient in biologically active Omega 6's**.

Furthermore, the ability to convert parent EFAs to metabolites has been impaired by diet and lifestyle factors: too much sugar, too much stress, deficiencies of key co-factors like zinc, magnesium, B12, etc., and disease states like diabetes and cancer that impair critical Delta-6 desaturization. (Contact the author for a list of further impairment factors.) Deficiencies of EFA parent biologically active lipids (PEOs) and the subsequent deficiency of metabolites along with lack of sunshine (creating natural vit. D3) has made us more vulnerable to viral infections than ever before.

To protect yourself against contracting enveloped viruses like Zika, the following recommendations should be followed:

1) Eliminate as much processed sugar from your diet as possible (impairs Delta-6 desaturase).
2) Reduce stress (cortisol and other stress hormones impair Delta-6).
3) Avoid toxic chemicals (smoking, alcohol, household cleaners and detergents, toxic drugs etc.) and toxins that impair Delta 6 desaturase.
4) **Mimimize transfats and *processed oils* in food because they block incorporation of biologically active PEOs into your 100 trillion cell membranes.**

There is a long spotted history relating the effect of viral infections and essential fatty acid metabolism. In 1935, soon after the discovery of EFAs, it was published that viral infections were associated with an abrupt fall in the iodine value of the blood, which *indicated a fall in the plasma concentration of EFAs*.

It wasn't until some 40 years later that Stoesser and his group found that infection of human cell lines with certain viruses could interfere with the ability of those cells to desaturate linoleic acid. More recently, it was found that Epstein-Barr virus infection in young adults (mono) is associated with **prolonged falls in the plasma levels of both Linoleic Acid** and its metabolites (GLA, DGLA, AA).

Finally, the now deceased eminent scientist Dr. David Horrobin (my mentor) brought these research results to clinical practice with Dr. Peter Behan in a randomized double blind placebo-controlled study of "Essential Fatty Acids in the Treatment of Postviral Fatigue Syndrome" published in 1990. What does this have to do with Zika? Just about everything if you understand EFA metabolism, flu symptoms, and the actions of viral replication at the cellular level.
Observations by Dr. Horrobin raised 2 important effects of EFA's on viruses:

1) **EFAs themselves can disrupt and inactivate those viruses that have a lipid envelope**---the effect is greater the greater the degree of desaturation. (references available upon request)
2) The action of interferon against viruses requires the presence of the cyclo-oxygenase enzyme, which suggests that prostaglandin metabolites of EFAs might be required for the full expression of interferon action against viruses. (references available upon request)

If the above is true (and the research strongly supports these facts) then this science would also explain why atopic people are abnormally susceptible to many viral infections, and patients with certain viral infections like EB and AIDS viruses develop full-blown atopic syndromes. **Viruses attempt upon entering the cell -- due to an EFA deficiency in the membrane -- to inhibit Delta-6 desaturase so the cell cannot make enough EFA metabolites to deactivate the virus**. In this way our cell becomes the host of the virus.

Current research (U.S. Patent # 4,841,023) applies to the inactivation of viruses in blood plasma. According to the patent--unsaturated fatty acids with at least one double bond in the cis configuration (biologically active) and containing 16-20 carbon atoms are effective in deactivating viruses that are enveloped. (i.e. FLU viruses). **The patent includes a list of fatty acids, but the most important for the purpose of this paper are: linoleic (Parent omega-6)**, **GLA** (gamma-linolenic), arachidonic and palmetic fatty acids. Small concentrations of these fatty acids will deactivate enveloped viruses like Herpes, influenza, Zika, etc. within minutes. (see patent for details)

Research has shown that long chain saturated fatty acids and short chain saturated fatty acids have NO anti-viral effect. But, Medium chain saturated and long chain *unsaturated* fatty acids deactivate enveloped viruses. The loss of the ability of the virus to spread and infect is attributed to the disruption of the lipoprotein envelope of the virus and has been observed many times under electron microscopes. (references available upon request)

Paul, thanks so very much for your understanding and recommendations!

Brian Peskin