A debate is raging on the web as to whether or not people with MS should take the essential fatty acid Omega 6. Many have given it up after following the advice on some US websites. Others are sticking steadfastly to their daily dose. Here, Judy Graham and nutritionist Annabel May Webb untangle the facts

Oils

The Great Oils Debate

Who Says Omega 6 is bad for you?

One is Californian nutritionist Krispin Sullivan. She insists her website is 'work in progress' and 'her property', so we are not quoting from it directly. She has said that:

- Omega 6 fats - in amounts more than essential - can lead to cancer, heart disease, autoimmune disorders, diabetes, allergy and asthma and can promote inflammation of tissue. Omega 6 decreases and Omega 3 increases HDL cholesterol.

She is not the only American to question Omega 6. Others include Dr Reginald Cherry, Dr David Perlmutter and Dr Joseph Mercola.

If you read the medical literature selectively, it is possible to find:

- A high ratio of Omega-6 fatty acids to Omega-3's produces depression, irritability, psychosis, ADHD, violent and impulsive behaviour, and increases cravings for addictive substances. By increasing Omega-3's and decreasing Omega-6's, these symptoms are reduced or eliminated.
- Increasing Omega-3's while decreasing Omega-6's has positive effects on autoimmune and inflammatory diseases.

Case

Carol Hanson, an American woman with MS

"When I saw Krispin's site, there it was, all in one place, by a world-renowned nutrition expert. I have also been reading the same information by others. Then, when doing a web search on oils, I read about the inflammatory effects of prostaglandins.

At first I was slightly unsure and kept up with those Omega 6 oils, with a gut feeling it was wrong. Now I'm convinced. I believe it's the latest important information and could make a great difference, so I'm at least going to give it a try."

But are they right? There is strong opposition to these views.

The Case FOR Omega 6. What The Experts Say:

"I have never read so much rubbish in my life!"

Dr David Horrobin, professor of neurophysiology, expert on essential fatty acids, who founded the Efamol company.

"I have never read so much totally ignorant nonsense in my whole life! I have probably done more clinical trials and published more studies on both Omega 6 and Omega 3 fatty acids than anybody else alive.

There is no scientific basis for the absurd and dogmatic positions that are being taken by people who simply do not seem to know the literature. They never seem to have done any original research, relying on secondary or tertiary sources, or to have latched on to one or other single published paper without having any real understanding of the balance of the literature.

The fact is that both Omega-6 and Omega-3 fatty acids are of central importance to life. Both are absolutely critical and essential to normal function, to the control of inflammation and to the prevention of cardiovascular and other diseases. BOTH have been shown to be effective in animal models of MS. Both have been found to be effective in other human inflammatory diseases such as rheumatoid arthritis; both have desirable cardiovascular effects; both can improve diabetes

Some Facts About Essential Fatty Acids

What Are Essential Fatty Acids?

Omega 6 and Omega 3 essential fatty acids are needed for the health and vitality of the body and, absolutely crucially, are required at levels that are in balance with each other. Supplementing Omega 3 oils alone will upset this balance and result in a functional deficiency of Omega-6 fatty acids, with symptoms such as skin eruptions, hair loss, liver degeneration, susceptibility to infections, sterility, heart and circulatory problems and growth retardation.

What Is Omega 6?

Omega 6 is in a fatty acid which is essential to life. You need to eat it in food as the body does not make it by itself. The 'parent' oil is called linoleic acid. It is found in such things as sunflower oil and seeds, safflower oil, corn oil, evening primrose oil, borage (starflower) oil.

Linoleic acid metabolises in the body to other important fatty acids. The first step is to the more biologically active gamma linolenic acid (GLA). The next step is something called DGLA (dihomo gammalinolenic acid.) This converts into prostaglandins, powerful hormone-like substances.

What Is Omega 3?

Also a fatty acid essential to life. Found in oily fish, fish oils, flax seed oil, green leafy vegetables.

Prostaglandins

There are different types of prostaglandins. One of them, called PGE1, is anti-inflammatory and has other good effects. Another, called PGE2, is inflammatory.

Omega 6 fatty acids convert in the body to the good prostaglandin if:

- There is sufficient linoleic acid in the diet.
- GLA supplements are taken (eg evening primrose/borage oil - They 'fast-track the conversion process.)
- The right vitamin and mineral 'co-factors' are taken: Vitamins B3, B6 and C, zinc, biotin, magnesium and calcium.
- The Omega 6 is not taken as trans fatty acids. (See right)

Trans Fatty Acids

When linoleic acid is used in food processing, it changes its chemical structure. In its biologically active state, it is known as cis-linoleic acid. In its biologically inactive form, it is known as trans-fatty acid. It is very easy to eat too much of Omega 6 in trans fatty acid form.

Trans fatty acids are 'baddy' fats, biologically inactive, and harmful. They interfere with the functions of essential fatty acids, block the conversion process of good fats, and, because of free radical action, can be damaging. (2) You should avoid them as much as possible.

Foods containing trans fats include crisps, corn chips, biscuits, commercially baked products, cake mixes, crackers, hydrogenated foods.

In the USA, trans fats are lumped together with the natural cis form , giving a higher than actual impression of how much Omega 6 is being consumed. There, people are eating 15 - 20 times more Omega 6 than Omega 3.

and both have been found to have strong anti-cancer actions. The dichotomy between Omega-6 and Omega-3 is therefore completely false.

A balance is appropriate with neither one being in a gross excess. There is reasonable evidence that a ratio of Omega-6 to Omega-3 in the range between about 3:1 and about 6:1 is about right."

Dr Ashton Embry:

"Stopping all Omega 6 is not wise"

Canadian scientist whose son has MS, and the expert adviser to the Best Bet Diet Group.

"I think the ratios of the fat types are the key for biochemical functioning. The best balance seems to be a ratio of 2.5 - 3 Omega 6 to 1 Omega 3.

I see no problem with evening primrose oil, and the GLA is of real potential benefit.

Saturated Fat. Following Swank and Cordain, people with MS should eat no more than 12-20 grams of saturated fat a day, out of a total fat intake of 60 -80 grams. I do not agree wit Krispin Sullivan who says you can eat all the natural saturated fat you want." This idea of stopping all Omega 6 is not wise."

Oxidation

Once eaten, oils risk being oxidised and making harmful free radicals, molecules which can wreak havoc. This may be a cause of MS. (3,4). Free radical damage is also associated with inflammation, autoimmune diseases, degenerative diseases, ageing and cancer. You can combat free radicals by taking antioxidants (eg Vitamins C, E, Pycnogenol, glutathione, superoxide dismutase.).

Conclusion

Both Omega 6 and Omega 3 oils are vital to health. They have to be taken in the right balance. Omega 6 oils taken should be in a biologically active form - not trans fatty acids. You also need to take certain vitamins, minerals and antioxidants to make Omega 6 oils convert to beneficial molecules. Under these conditions, Omega 6 (and Omega 3) can help in MS.