

Do You Really Want Fries With That? - Dietary Fats & The Brain

By Tasleem Kassam, N.D.

September means back to school – a time for focus, concentration and learning. As such, it is an appropriate time to review the role of dietary fats as they relate to the brain and its optimal structure and function.

Kids low in omega 3 fatty acid intake are **significantly more likely** to be hyperactive, have learning disorders, and to display behavioural problems, according to one study at Purdue University. Deficiency of omega 3 fats are also linked to the incidence of many other conditions, including:

- learning disorders
- depression
- heart disease
- allergies
- violence
- weight gain
- eczema
- arthritis
- memory problems
- cancer
- inflammatory diseases
- diabetes

The human brain is more than 60% structural fat. Of this 60%, over half is comprised of docosahexaenoic acid (DHA), an important omega 3 fatty acid. So, it then follows that the better the fat in the diet, the better the brain.

From a dietary perspective, most of us are not deficient in fat content, but rather lacking in the right kinds of fat. The North American diet is almost devoid of omega 3's, except for certain types of fish. In fact, researchers believe that about **60%** of our population are deficient in omega-3 fatty acids, and about **20%** have so little that they are not detectable in the blood by any test methods.

The body needs two kinds of fat to manufacture healthy brain cells – omega 6 and omega 3 fatty acids:

- Omega 6 fatty acids are found in vegetable oils, such as safflower, sunflower, corn, and sesame. These are the oils commonly used in commercially available processed foods.
- Omega 3s are found in flax, pumpkin seeds, walnuts, and coldwater fish.

Ideally, we need approximately equal amounts of both omega 6s and omega 3s. However, the typical North American diet actually has 20X more omega 6s in our diet than omega 3s. We get all of the omega 6 we need, and more, from our diets. So as far as supplementation is concerned, it is important to **only supplement omega 3s!**

(Cont'd Page 2)



Change in Clinic Hours

Please be advised that of Sept. 1, 2011, our clinic hours have changed to 10am to 6pm Monday through Friday and 10am to 5pm on Saturdays.

Our Website

We've updated our website to reflect our new programs available this fall.

Check it out at www.effectivehealth.ca

Continued from Page One

Supplementing omega 3 is much easier now than the days when your mother insisted on a tablespoon of cod liver oil before breakfast. There are many supplements on the market that are quite palatable, from the Barlean's fish oils that are mango, pina colada or lemon flavoured, to concentrated DHA oils that deliver your daily dose in four drops or less. There is no longer an excuse for not being able to get omega 3 fatty acids into you, regardless of whether you like fish. One of my patients' favourite supplements is krill oil – since it contains omega 3s as well as a potent antioxidant in it called astaxanthin, which prevents the omega 3 from going rancid, as well as a host of other health benefits.

In the absence of required fatty acids, brain cells will try to use what is available to the ones needed to grow and function. Higher blood levels of "replacement fatty acids" are associated with diets that are high in hydrogenated fats and excessive amounts of omega 6. For example, persons suffering from depressive disorders or Attention Deficit Disorder (ADD) have been shown to have elevated levels of replacement fatty acids. Substitutions in the type of fatty acids changes the cell membrane's structure, and therefore compromises its ability to communicate with other cells, uptake nutrients, or respond appropriately to neurotransmitters.

DHA is the primary structural component of brain tissue, and is important in helping brain cells better communicate with each other. The brain-building effects of DHA are so well established that in Japan, students frequently take DHA pills before examinations.



Consider these findings:

- Infants who have low amounts of DHA in their diet have reduced brain development and less accurate vision.
- Breastfed babies exhibit increased intelligence and academic performance compared with formula- fed infants - this difference has been partly attributed to the increased DHA content of human milk.
- There is a lower incidence of degenerative diseases of the central nervous system, such as multiple sclerosis in cultures whose diets are rich in omega 3s.
- Experimental animals whose diets are low in DHA have been found to have smaller brains and delayed central nervous system development.
- Some children with poor school performance because of ADD, have been shown to have insufficient essential fatty acids in their diet.

It is also important to realize the impact of other dietary fats and their effect on brain function. Hydrogenated and trans-fats not only hinder the brain, but also impair the action of omega 3s. Consuming the wrong types of dietary fats actually prevent the right types of fats from functioning. So, not only is it important to intake the right types of fats, it is equally as important to avoid the wrong ones. In essence, one trades IQ points for the regular indulgence of French fries – seems like a pretty

high price to pay.

Whether you are a young student learning your reading, writing and arithmetic, or an older person learning from the lessons of life, do yourself a favour – increase your intake of omega 3s. Your brain will thank you for it.

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Staff & Associate Changes

Please extend a warm welcome to Bobbie Cochrane who has moved her counselling and hypnotherapy practice to Effective Health Solutions. Please refer to www.effectivehealth.ca for more information.

We also have some new smiling faces at reception - so the next time you are in, say hello to Carly or Erica. Ariffa is still on board, so we have a great team to offer you the service you deserve here at EHS!