

FEEDING YOUR BRAIN: PART 1

Words Delia McCabe Design Olha Blagodir

There is a great amount of confusion and uncertainty prevailing about what nutrients are required to feed the brain optimally. This is the first of two articles on the best foods to feed your brain. Here, a brief description of the brain provides a foundation for a discussion about the most important nutrients, fats and oils.

THE BRAIN:

With the brain being the greediest organ in your body, it has always been surprising to me that people pay so little attention to feeding it. The brain weighs approximately 1.3 to 1.4 kg (about 3 pounds) and contains about 160,000 km (100,000 miles) of blood vessels and about 100 billion sophisticated and specialized cells called neurons that each have between 1,000 and 10,000 links (synapses) between them. At any given moment your brain is processing about 100 million pieces of information.

THE BRAIN IS A VERY BIG AND VERY BUSY PLACE IN A VERY SMALL SPACE.



Thinking occurs across this vast network of cells, chemicals, membranes and molecules, linking thoughts, ideas and memories, which generate moods and behavior, in what can potentially be a beautifully orchestrated process. This vast network is supported by the same nutrients that support the rest of the body. Many nutrients are required in greater quantities for the brain and are significantly more important for brain function than for general bodily functions.

FATS AND OILS IN THE BRAIN:

The dry weight of the brain is 60% fat and although the body can convert most of the fats required for the brain from the carbohydrates we consume, there are 20% to 25% of fats that have to come directly from our diet. These are essential fatty acids (EFAs). They are called essential fats since the body cannot make them and the brain requires them to function optimally. They are chemically polyunsaturated fats. These fats have the amazing capacity to allow electrical stimuli to be used very efficiently when our neurons communicate with each other via specialized signals.

Where are EFAs found?

About 60 years ago, when farmers realized that it was easier to grow warm-weather crops for seeds, from which omega-6 fats are derived, they started growing more to the exclusion of omega-3 fats, which are derived from cold-weather seeds. Thus, most people today consume too much omega-6 and not enough omega-3 fats.

Manufacturers also preferred the warm-weather omega-6 fats, as they did not become rancid as easily as the omega-3 fats. Therefore, a combination of ease of cultivation and harvesting, coupled with easier manufacturing and higher profits means that now we do not have significant omega-3 fats in our diet. The manufacturing process that produces vast quantities of omega-6 oils, makes use of inexpensive and very efficient methods of extraction, which damages the delicate omega-6 fat molecules. So, even though most people are consuming too much omega-6 fatty acid, it's generally in a damaged form. Dry skin, brittle nails and hair, hormonal challenges, cracked heels as well as moodiness, coupled with memory and learning difficulties are all possible signs of a deficiency in omega-3 fatty acid.

**THESE
ESSENTIAL
FATTY ACIDS
COME IN
TWO FORMS:
OMEGA-3
FATTY ACID
AND OMEGA-6
FATTY ACID.**

CHANGING DIETARY TRENDS:

The 'no-fat' and 'low-fat' diets that inundated the dieting mind-set for many decades, did not take into account the critically important role that fats and oils play in our health, specifically our mental health. It is an unfortunate fact that some dietary trends are difficult to change, even when new scientific evidence proves beyond a shadow of doubt that the data were severely flawed. Ironically, the very organ that requires the right fats and oils to function optimally, is the same one that needs to incorporate new data and battles to do so when it is deprived of these essential fats...the brain.

THE RIGHT FATS AND OILS FACILITATE IMPROVED COGNITIVE FUNCTION, MOOD, MEMORY AND LEARNING CAPACITY.

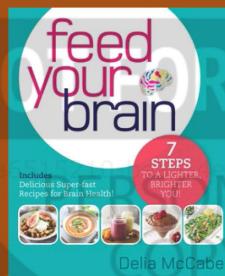
The right fats and oils provide your fat-hungry brain with the right building blocks to provide optimum nourishment for neuronal functioning and synapse synthesis. It is therefore very

important to be very choosy about the fats and oils that you use, which are susceptible to damage from light, heat and oxygen.

Focus on organic, cold-pressed EFA blends, organic cold-pressed olive oils and coconut oils. Consuming crushed flax, sesame and sunflower seeds, along with other organic nuts will provide your brain with the correct fats and oils. As well, it is very important to avoid shelf-stable cooking oils and spreads, which include damaged trans fats and other toxic compounds that introduce the wrong kinds of fats to your delicate brain.

In the next issue of GHG™, Feeding Your Brain Part 2, will delve into the importance of unrefined carbohydrates and clean protein for optimal brain function and the achievement of genetic potential.

Delia McCabe, MA(Psych) is a PhD candidate in nutritional neuroscience, researching the relationship between specific nutrients and female stress levels. Her book Feed Your Brain - 7 Steps to a Lighter, Brighter You! is available below. Visit Delia at her [website](#).



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