

Foods for health

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Be mindful of what you feed your children because they are what they eat.

THE saying "fish is brain food" is more than old folk wisdom, as mounting evidence shows.

Clinical trials of omega-3 fatty acids have shown benefits for mood and sometimes impulsivity or aggression in patients with depression and related conditions.

Evidence also links higher dietary intake of specific omega-3 and omega-6 fatty acids to benefits in some children with dyslexia, dyspraxia and ADHD (attention-deficit hyperactivity disorder), at least in the short term.

That is a sure dose of good news, since the World Health Organisation estimates that child mental disorders will rise by 50% by 2020.

"Fatty acids are attracting the attention of scientists now in terms of their importance in mental development throughout one's life, starting from the womb," said Dr Alex Richardson, senior research fellow at Oxford University's Department of Physiology, Anatomy and Genetics.

Richardson has been involved in scientific research into the nature and causes of many common difficulties in behaviour and learning for 20 years.

She has focused her research on the link between fatty acids and developmental and psychiatric disorders in children.

Richardson, who was in Kuala Lumpur to conduct a seminar entitled *Fatty Acids, Learning and Behaviour in School Age Children*, said many people still do not know that nutrients affect brain development. "Our brain is built, maintained and repaired by what we eat," she emphasised.

She said theory and experimental evidence support a role for omega-3 in ADHD, dyslexia, developmental coordination disorder and autism, although such conditions are complex with many possible causes. Her latest and biggest trial, the Oxford-Durham Study published in 2005, showed, for the first time, clear cause and effect in improvement in academic achievement and omega-3 intake. The study was also the first controlled treatment trial on fatty acids in children with developmental coordination disorder.

"In children with behavioural and learning problems, we have now found improvements in attention,



Dr Alex Richardson: 'Our brain is built, maintained and repaired by what we eat.'

learning, behaviour and decreased impulsivity," she said.

The trial tested 117 underachieving children aged five to 12 in mainstream schools who have difficulties in motor coordination (all the children), and reading and spelling (40%), and showed ADHD-type symptoms (30%).

After three months, results showed no significant differences in motor function but marked improvements in reading and spelling, and distinct reductions in ADHD symptoms.

"Now, we need large scale trials to be done on the general school population because we believe increasing omega-3 intake may improve their behaviour and learning too," said Richardson, who is also founder director of Food and Behaviour (FAB) Research (www.fabresearch.org).

A study published in *The Lancet* early this year, written by Dr Joseph Hibbeln (et al), concluded that pregnant mothers who ate more fish resulted in children showing better neurological function than children whose mothers ate low amounts or no fish during pregnancy.

"The study showed that high fish intake resulted in improvements in verbal IQ, motor skills and social skills, and decreased hyperactivity in the children," said Richardson, adding that the children were tested at the age of eight. "The American

Psychiatric Association has recommended that adults take 1gm of EPA and DHA a day on top of their normal medication.

"This should start in children's diet too," she said.

Richardson is author of *They Are What You Feed Them*, published last year. It focused on how food and diet can affect children's behaviour, learning and mood. Richardson wrote: "Leading researchers predicted 30 years ago that unless we changed the type of fat we were eating, the epidemic of heart disease would be followed by an epidemic of brain disorders in countries eating an American-style fast-food diet. That's exactly what has happened."

Richardson said fatty acids are often lacking in a modern, Western diet. "Industrialisation has dramatically reduced the nutrients in our food, not just in terms of type of fat used but also fat composition in meat. That is worrying. Foods now are easy to produce, distribute and last longer but people don't know that their nutrients have reduced. Sadly, many governments do not know this as well."

Richardson added that food labels are not very helpful even in Britain because they do not tell the good fats from the bad, or which are the good and bad carbohydrates.

"In general, the more additives and names you do not understand in a label, the worse off it is."

"In Britain, many people are still not aware of the different types of fats in food. They may know about omega-3 but not that the good ones come only from fish and seafood," she emphasised.

Richardson hopes her book will spread the message that parents and caregivers are in charge and responsible for what children eat.

They Are What You Feed Them contains a 12-week plan to help a child achieve a better diet and lifestyle, and also recipes for healthy snacks and main meals. "Learn for yourself and your children. You need to make healthy choices first because children will follow what you do," she said.

■ ***They Are What You Feed Them*** is available at MPH in Mid Valley Megamall, Kuala Lumpur, and 1 Utama, Petaling Jaya, Selangor.