

Can popping fish-oil pills stop this tantrum?

Since a compelling experiment was shown on the BBC's Child of Our Time last week, sales of Omega-3 supplements have rocketed. But, asks Ian Sample, are behavioural problems so easily solved?

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It must have made fascinating viewing for anyone bringing up a child with learning or behavioural problems. Last week's Child of Our Time, the BBC programme that follows the trials and tribulations of children born at the beginning of the new millennium, told the story of James and Ruben, boys with very different behavioural problems. James was aggressive in the extreme, his day a blur of punching, beating and demolition. Ruben's problem was less visible: he was uncommunicative and struggling to make friends.

As a test, the two were given fish oil as a daily supplement. Three months later, we saw James as a different child: he was popular with other children, sharing his toys rather than clubbing people with them. Ruben had also changed. He was chattering away and had worked out how to make friends. The question: was it all down to fish oil?

It is impossible to say, of course. In the same three months, other factors changed in both children's lives: James's mum split from her partner, and his home life became more stable; Ruben switched schools. But the message many parents took away from the programme was that if your child is struggling, fish oils may be the answer.

"Can anyone remember what the fish oils were called in the programme? I'm interested in trying my three-year-old on them 'cause he is a right handful at the moment," was typical of the hundreds of postings left on the BBC's online message board after transmission last week. Perhaps unsurprisingly, sales of fish oil have leapt since the programme went out. Boots recorded a 300% increase in demand in the days afterwards. One fish-oil manufacturer, BR Pharmaceuticals, says the recent rush for fish oils is part of a long-term trend - it claims sales of its own oils have risen by 3,000% in the past year.

But is there any real evidence that fish oils can help children with learning or behavioural problems? So far, only a handful of good scientific studies have been done. What evidence there is suggests that while some children with certain difficulties may benefit from fish oil, it is not a magic bullet that will bring every difficult child into line.

"You can't yet say it is an accepted therapy, much less how it might work," says Professor Eric Taylor, a child neuropsychiatrist at King's College, London. "There is preliminary evidence about it but we cannot yet say it is a recognised therapy. It's too early to tell parents to give this to their children. Until scientists have unequivocal proof of the beneficial effects or otherwise of fish oils on struggling children, parents should stick

with traditional psychological treatments. The big message is that if you want help for your child, there really are very good psychological interventions which are free on the NHS - and they work."

Researchers who have studied the effects of fish oils say they are most likely to have an impact on children whose difficulties are at least in part due to disorders such as attention deficit hyperactivity disorder (ADHD), dyslexia, autism and dyspraxia (dyspraxics often have difficulty carrying out complex, sequenced activities or may be mildly clumsy). There is some scientific evidence that an imbalance of certain fatty acids, which happen to be found largely in fish oils, may contribute to many of these. Further studies have found that dyslexia and the inattentiveness and impulsiveness associated with ADHD can be improved by fish-oil supplements. A study into the effect of fish-oil supplements on more than 100 dyspraxic children in Durham is nearing completion.

There are some tell-tale signs that can indicate an imbalance of Omega-3 fatty acids in the diet. Allergy-related conditions such as eczema, asthma and hayfever are more common, as are poor concentration, depression, excessive mood swings and undue anxiety. Others with imbalances can experience difficulty getting to sleep at night and visual disturbances when reading, such as words and letters moving around.

Fish oils seem to help because they are rich in a particular type of Omega-3 fatty acid called Eicosapentaenoic acid (EPA), which is vital for the proper chemical functioning of the brain, mediating hormones, the immune system and blood flow. Just how EPA might be helping struggling children is poorly understood though. "All we know is that if people take these capsules, their behaviour, learning and mood can sometimes improve quite dramatically," says Dr Alex Richardson, an Oxford University-based expert on the effect of food on behaviour and lead scientist on the Durham study. "But Omega 3 can affect many aspects of brain function, so these benefits could reflect more efficient chemical signalling, or just an increase in blood flow to the brain."

Thanks to processed foods, most modern diets are now woefully lacking in Omega-3 fatty acids and this may be where the problem lies. Oily fish and seafood are the only foods that contain ready-made EPA and while the body can make the compound from other Omega-3 fatty acids found in leafy vegetables, walnuts, brazil nuts and flax oil, it is an extremely inefficient process.

One difficulty is that to have a beneficial effect, high doses of EPA are required - children in the Durham study received 500mg of EPA a day, the equivalent of around 30g of pilchards. Try getting a child to eat fish every day and it will become clear why a supplement might be the answer.

But isn't this just a further step down the road towards a supplement-obsessed society? Richardson says not: "I'm not someone who says, 'Just pop a pill'. People should first make dietary changes and make them in a sensible direction. Get rid of the junk fat, and ensure they're eating whole foods."

How to choose the right fish oil

Picking the right supplement is crucial. The main thing to look for in a fish-oil supplement is that it contains a high dose of Eicosapentaenoic acid (EPA). But, as last week's Scottish salmon health scare proved, there are other factors to take into account too. "In the same way that our fish are now polluted with PCBs, dioxins, heavy metals and everything else because of the environment they swim in, so are many fish oil supplements," says Dr Alex Richardson.

It is important, then, to check that the oil has been purified. If it has, the manufacturer will be likely to boast about it on the packaging. For example, MorEPA is one such pharmaceutical-grade supplement, which costs less than half that of some high-street brands (available from smaller pharmacies). It costs about £9 a month, as does eye q, the product used in the Child of Our Time experiment (available from Boots).

Generally, oils made from fish bodies are preferable to those made from livers as the liver is the detox organ and so holds more toxins than any other. Cod liver oil is also best avoided as it is rich in vitamin A and taking large doses for an extended period could lead to vitamin A poisoning. Fresh fish oil should not give you fishy burps - if they do, the oil has been hanging around a while and the EPA may well have been oxidised.

A comprehensive collection of fact sheets and a list of relevant research studies can be found at www.fabresearch.org.