



# Food for the mood

Can attention-deficit-disorders be alleviated with doses of micronutrients?

Carrie Bradshaw had more than a few doomed romances in the popular television series *Sex and the City*. Carrie's romance with jazz musician Ray King started off with a bang, so to speak, and although she revelled in the exciting and passionate nature of her new amour, she struggled to make an emotional connection with him.

"As Ray talked, I realised he wasn't spontaneous and unpredictable and thrilling – he was a guy with ADD," she said. "What kind of relationship could I have with a guy I couldn't even talk to? I'd have to end it."

Hyperactivity, restlessness, disorganisation, forgetfulness, trouble concentrating and staying focused, and emotional difficulties like mood swings, irritability and a short explosive temper – they're all possible symptoms of attention deficit hyperactivity disorder, or ADHD as it's known in New Zealand.

ADHD can strain relationships, cause work and financial difficulties and affect physical and mental health by contributing to such problems as substance abuse, eating disorders, anxiety, stress, and low self-esteem. Whereas Carrie could walk away from Ray and his ADHD, Ray had fewer options, as do the estimated 3-5% of adults with ADHD.

Nutritional treatments for ADHD have roundly been dismissed by many in the field of psychology. But Dr Julia Rucklidge, associate professor of psychology at the University of Canterbury, was keen to

investigate further, especially since micronutrient supplements are being trialled for the treatment of bipolar disorder.

She had also found that many Christchurch-based adults with ADHD were having trouble finding suitable treatment. "Very few psychiatrists [in Christchurch] are willing to prescribe the stimulant medications that are the frontline treatment for ADHD, and the psychiatric services have struggled with how to manage these people as well.

"We've hit a wall – while many people do benefit greatly from psychiatric medications, we're not effectively treating everybody, and so we always need to be exploring other avenues."

Rucklidge reviewed the published research on nutrient supplementation in the treatment of ADHD; her findings were published in 2009 in *Expert Review of Neurotherapeutics*. "I was surprised at

[how] few empirical studies had actually been done on any type of micronutrient and ADHD.

"If you go back to the original studies ... micronutrients were really not given a fair go, because they were compared with, say, [stimulant medication] Ritalin in a two-week trial, and it's not a fair comparison. Ritalin is the most effective short-term treatment for ADHD symptoms; there's nothing else that could eliminate the symptoms so quickly. If you understand the biochemistry behind micronutrients, you know it's going to



take longer than two weeks to crack any deficiencies that may be present.”

Keen to determine whether a micro-nutrient supplement could treat ADHD successfully, Rucklidge ran an eight-week pilot study, using adults with ADHD who were going untreated but were being assessed as part of her research studies.

“Many of these people came in with multiple problems, not just ADHD. We had people with anxiety disorders, depressive disorders and substance-abuse disorders. Seeing consistent change across such a varied group of people was quite – I hate to use the word – remarkable, but it is quite remarkable, when they’re so impaired when they started”.

However, the pilot study was an open-label trial (the 14 participants knew what treatment they were receiving), so the results may simply be placebo effects. Rucklidge agrees, but points out the effect was far larger than the placebo effect reported in other ADHD clinical trials. “So that gives you a bit more confidence”, she says, as does the participants’ post-trial progress. “The people who stayed on the micronutrients continued to benefit over time and this is without

any of our input ... whereas the people who stopped showed a regression.” Not everyone responded to the treatment, says Rucklidge, but non-responders were a minority.

“At the end of the day it makes such perfect sense. Our bodies need a broad-based nutritional balance for optimal functioning, both mentally and physically.”

**“Seeing consistent change across such a varied group of people was quite – I hate to use the word – remarkable.”**

Rucklidge points to the work of world-renowned researcher Dr Bruce Ames, a professor of biochemistry and molecular biology at the University of California, Berkeley. In 2002 a review he co-authored, which was published in the *American Journal of Clinical Nutrition*, explained that about a third of genetic mutations result in genes that produce enzymes that are less effective. The researchers esti-

mated that about 50 human genetic diseases could be remedied with high doses of certain vitamins, which went some of the way towards restoring the enzyme activity to normal levels.

“If that makes sense for physical illness, maybe it can make sense for mental illness, at least for some people – it’s not to say this is going to be the solution for everyone,” says Rucklidge. “Although many people should be able to get sufficient nutrients from their diet alone, some people may not be as efficient at using nutrients and therefore need more than what they can get from their diet.”

As Rucklidge’s pilot study doesn’t prove that nutritive interventions effectively treat ADHD, she’s about to do another one that should provide more answers: an eight-week randomised, placebo-controlled, double-blind trial of a micro-nutrient formula in adults with ADHD. Will significant, positive improvements in ADHD symptoms occur when the patients are blinded to the nature of the supplementation? Only time will tell. ■

**Email: [nutrition@listener.co.nz](mailto:nutrition@listener.co.nz), or write to “Nutrition”, c/o Listener, PO Box 90783, Victoria Street West, Auckland.**

