



Sweet surrender

It's sweet, cheap and controversial. And it's coming to a school near you.

BY SALLY BLUNDELL

Last month the Ministry of Health unveiled a new food and drink classification system that allows for the sale of artificially sweetened soft drinks in school canteens. Following on from last year's announcement that all full-sugar fizzy drinks supplied by Coca-Cola Amatil NZ and Frucor Beverages will be banned from secondary schools by 2009, the move has been applauded by some as another positive step towards combating obesity. Others are furious.

Their concern? Aspartame – an intense sweetener (about 180 times sweeter than sugar) used in diet soft drinks and

other sugar-free foods under such brand names as NutraSweet, Equal and Spoonful. Approved by food standard authorities around the world, it is used in 6000 products from soft drinks to mouthwash, chewing gum to multivitamins, cocoa mix to tabletop sweeteners.

"There's a lot of anecdotal evidence and independent research that says there's a problem with aspartame," says Safe Food Campaign co-convenor Alison White.

"Right from the beginning, scientists have been concerned, and the public needs to be informed about this. They need to know that this is something that should be avoided."

John (he doesn't want his real name used) was a mystery to his doctors. He had put on a lot of weight, his hands and ankles were swollen, he had numbness and tingling – "massive pins and needles" – in his arms and hands. He was depressed, and mood swings made him lash out uncharacteristically. Arthritis, doctors suggested. Carpal tunnel syndrome, lymphoedema ...

As John lay on his hospital bed, no one mentioned the bottles of Diet Coke and the sugar-free chewing gum on his bedside table. Then he heard Abby Cormack on the radio.

"She was talking about aspartame – I'd never heard of it, didn't even know how

to spell it. But she was describing my symptoms."

Abby Cormack, once compulsive sugar-free gum chewer, now outspoken critic of the artificial sweetener.

Like John, Cormack had been unable to find an explanation for health problems like muscle cramps, excessive tingling, poor balance, blurred speech and increasing depression and anxiety. "It got to the stage," she says, "that I couldn't even leave the house. I was so paranoid."

She was put on anti-inflammatories to help the pain, Valium for her anxiety. Doctors said she was over-exercising. She thought she had a brain tumour.

Then her mother suggested she cut down on gum – an eight-year habit that had escalated to four packs a day. She Googled one of the ingredients on the label – phenylalanine – and up came aspartame.

"And all my symptoms. It was then I said, 'I know what this is.'"

As soon as she stopped the gum her symptoms began to lift.

"A year ago I wouldn't have believed it – I'm the most sceptical person in the world. But I didn't change any other variable in my life."

Cormack's case brought US anti-aspartame crusader Betty Martini to New Zealand recently for a whirlwind tour supported by the Soil & Health Association and the Safe Food Campaign. Aspartame, says Martini, is an addictive excitoneurotic carcinogenic substance that interacts with other drugs and vaccines. And it is in our diet, she says, thanks to a campaign of misinformation, missing evidence and biased research.

Aspartame is usually listed on labels as 951 or E951, or with the words "contains phenylalanine". In the body it breaks down into a methyl ester and two amino acids: phenylalanine and aspartic acid.

Phenylalanine is metabolised into dike-topiperazine, a suspected carcinogen, while methyl ester is metabolised into methanol, which in turn produces carcinogenic formaldehyde (embalming fluid). According to the New Zealand Food Safety Authority (NZFSA), these substances occur naturally and are processed through normal biochemical pathways. When found naturally, however, phenylalanine and aspartic acid do not break down so easily. And foods containing natural amounts of methanol also have ethanol, the natural antidote. Aspartame contains no ethanol.

So how did it get into the food chain?

It was first synthesised in 1965 by the US phar-

maceutical company G D Searle. Subsequent tests by Searle were found by the US Food and Drug Administration (FDA) to be "poorly conceived, carelessly executed, or inaccurately analysed or reported". The FDA requested a grand jury to investigate Searle's conduct but this jury was never convened.

In 1977, Searle's new chief executive, Donald Rumsfeld (yes), publicly stated that he would do all he could to win a licence for aspartame. In 1981, new FDA commissioner Arthur Hayes approved aspartame for use first in dry goods and then in carbonated beverages (Hayes later moved to a job with NutraSweet's public relations agency). In 1996, aspartame was approved for use in all foods and beverages.

Since then, many other countries have also approved it, even though an FDA report shows that between 1980 and 1996 there were 6610 complaints of adverse reactions. Of the 91 symptoms listed, including blurred vision, anxiety attacks and seizures, the most common were headaches, dizziness and mood fluctuations.

In 2005, a seven-year study by the European Ramazzini Foundation of Oncology and Environmental Sciences concluded that aspartame caused a "significant increase" in malignant tumours in rats, but NZFSA deputy chief executive Sandra Daly says the study was shonky and poorly done – "and it's not just New Zealand [that thinks

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– Abby Cormack



that]. Everyone says the same thing."

Many groups have indeed found fault with the research, and since then the UK Food Standards Agency, the FDA and the European Food Safety Authority have all reconfirmed their confidence in the safety of aspartame. But according to Erik Millstone, professor of science policy at the University of Sussex, writing in the *Food Magazine* last year, the Ramazzini researchers didn't just repeat flawed tests, using protocols preferred by industry – they "substantially improved upon it".

Responding by email now, Millstone says: "On the basis of some 23 years of my research on aspartame, I am not convinced that the tests and reviews that aspartame has been subjected to are adequately impartial and scientifically robust enough to indicate that its use is acceptably safe ..."

"Before the results from Ramazzini emerged, I argued for more and independent testing, and an independent review of how it came to be approved in the first place. Now I argue for an outright ban, and an independent review of how it came to be approved in the first place."

So, an addictive carcinogenic drug aggravating neurological diseases and migraines? Or a much-tested and much-needed harmless replacement for sugar? Supporters say that it's essential for fighting obesity, and that you'd need to consume ridiculous amounts of diet soft drinks or gum to exceed the acceptable daily intake.

Opponents say you can't have an acceptable daily intake for such a dangerous chemical and that further independent tests must be done. Besides, argues Martini, aspartame triggers a craving for carbohydrates – hardly an aid to losing weight.

The NZFSA, says Daly, will continue to look at all research, but "there's always going to be naysayers". And in any case, she says, people who suspect they're having a reaction to aspartame can phone the manufacturer or make a report on the NZFSA website.

But if no one knows the potential side-effects of aspartame, how will they connect such symptoms to their low-cal soft drink or chewing gum?

Under the new classification system, artificially sweetened soft drinks are okay if consumed "sometimes" or "occasionally". The system is voluntary. Some schools have already banned vending machines. Others will continue to stock their canteens with one of the world's most controversial additives. ■

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