

THE TIMES

The toxic toothpaste

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Fluoride is good for teeth but it can also be harmful

Like most parents, Beverly Cooke encouraged her daughter Alysia to use fluoride toothpaste. From the age of 18 months Alysia's tooth-cleaning was supervised, and she never used more than the recommended pea-sized amount of toothpaste.

At nine, Alysia started to have leg pains, flu-like symptoms and constant headaches. Her condition mystified specialists until a doctor at an orthopaedic clinic noticed her teeth were mottled brown. He suspected dental fluorosis, a condition caused by overexposure to fluoride that can cause crumbling of the enamel and permanent damage to teeth.

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Tests revealed high levels of fluoride in Alysia's system, even though she lived in the Gower Peninsula in Wales, an area with unfluoridated water. As soon as she stopped using fluoride toothpaste her symptoms disappeared and now, aged 11, she has problems only if she visits areas where the water is fluoridated.

"In the scale of toxicity, fluorides fall between arsenic and lead" Alysia's extreme sensitivity is rare but, according to the latest evidence, side-effects from fluoride exposure are not. A government-commissioned study has revealed that 48 per cent of children who drink fluoridated water show signs of fluorosis.

Campaigners and parents are increasingly angry that the risks are not better publicised. In America, they point out, there is a mandatory warning on every tube of fluoridated toothpaste: "In case of accidental ingestion, seek professional assistance or contact a poison centre immediately." Why are British consumers not given this information? Tony Lees, from Herefordshire, a dentist for 40 years, believes that fluoride should be banned from toothpastes and water. The marginal benefit it displays for teeth does not outweigh its general dangers, he says.

"In the scale of toxicity, fluorides fall between arsenic and lead," he says. "Dental fluorosis is not just a cosmetic problem, but the visible sign of chronic fluoride poisoning, and children are more vulnerable than adults."

Anyone overdosing on fluoride, he says, is in danger of developing chronic skeletal fluorosis, which can weaken bones and cause arthritis.

Anti-fluoride campaigners have also pointed to isolated studies and anecdotal evidence indicating that exposure to fluoride may be linked to thyroid problems, bone cancers and hip fractures. "The danger with toothpaste is that large amounts are easily swallowed," says Lees. "This is made worse for children by manufacturers who give it tempting flavours." But Lees is a lone voice. Most dentists are convinced that fluoride is good for teeth and that there is no evidence that it does harm — apart from the occasional case of cosmetic dental fluorosis. They point out that in the ten years after fluoride toothpastes were introduced in 1973, dental disease in children fell so dramatically that some dentistry schools had to be closed.

Mike Lennon, the Professor of Dental Public Health at the University of Liverpool and a spokesman for the British Dental Association, acknowledges that until the early Nineties some overenthusiastic parents were encouraging children to use too much fluoride toothpaste. Toothpaste manufacturers were not taking into account the tendency of children under the age of two to swallow everything that goes into their mouths. But now there are "low-dose" toothpastes for children, and he believes families in Britain are better educated about using the right amount.

He thinks that it would be wrong to scare parents by publicising the risk of fluorosis or by putting warnings on tubes. "There is no doubt that fluoride has a huge benefit. The only risk is dental fluorosis, where you would have to swallow very high levels, and I know of no evidence of any risk to health."

The available evidence on the risks and benefits of fluoride, however, belies the strength of assertion by both professionals and campaigners, making the correct course for parents far from clear. A new government-commissioned study by the University of York on the benefits of water fluoridation has proved only that existing research — supporting its use and warning of its dangers — is of such low quality that it should not dictate policy.

The fact that the British Dental Association receives money from the toothpaste industry for endorsing fluoride-based products, among other things, is hardly likely to inspire confidence. Nor is the organisational quirk which means that toothpaste safety is controlled by the body regulating cosmetics, not medicines.

What everyone agrees on is that parents should try to ensure that their child's intake of fluoride is controlled. In the 10 per cent of Britain where water is fluoridated, this may mean taking care that a child uses small amounts of a low-dose children's toothpaste, and steering clear of fluoride mouthwashes and other products containing fluoride.

Professor Lennon advises that it is safe in most areas for children to use a small, pea-sized amount of the family toothpaste twice a day. "You need to take advice from your dentist, who will make an assessment of many factors, including your child's diet and how assiduously you use toothpaste."