

growing bones of children" (*Teotia and Teotia 1988*).

Dental fluorosis, the fluoride type of tooth-enamel opacity or "mottling", is a disturbance of tooth formation long recognised as one of the first and most sensitive signs of fluoride poisoning (*Roholm 1937, Moller 1982, Fejerskov et al 1988*). Many studies have reported prevalences and severity much greater in

### Fluoride toxicity afflicts children more severely and after a shorter exposure to fluoride than adults

fluoridated areas than we predicted when fluoride was first added to our water supplies (*Colquhoun 1984, Curren et al 1985, de Liefde and Herbison 1989, Heifetz et al 1988, Szupunar and Burt 1988, Segretto et al 1984, Leverett 1986*). A New Zealand cohort study has reported that, far from fading as fluoridation proponents often claim, the condition in some children's teeth deteriorates resulting in "unsatisfactory appearance" (*De Liefde 1988*) - that is, the porous mottled patches became discoloured and pitted, as I had found in Auckland in 1983 (*Colquhoun 1984*). Some of the authors have suggested lowering present levels of fluoride intake in order to reduce the mottling.

In 1986 a review article in *Nature* stated: "It is now time for a scientific re-examination of the alleged enormous benefits of fluoridation" (*Diesendorf 1986*). Those benefits are disputed, and at best were exaggerated. Some dental scientists in Europe (where fluoridation is not practised) discourage any systemic use of fluoride because of its toxic side effect (dental fluorosis). They point out that "topical" (externally applied) uses are more effective in controlling tooth decay anyway (*Fejerskov et al 1988, Thylstrup and Fejerskov 1986*). In our country, where every child can attend a school dental clinic and receive such topically applied fluoride when indicated, there is no reason for continuing mass systemic provision.

Regrettably the medical and dental professions are slow to challenge accepted orthodoxies, and appear to not be facing up to the new evidence of the adverse effects of fluoridation. The adverse effect on our children's teeth of the variable, uncontrolled, compulsorily administered fluoride dose was underestimated. New evidence suggests we also underestimated the adverse effect on bones. We should not wait until the evidence of harm becomes overwhelming before we act with the caution and responsibility expected of health professionals and recommend an end to fluoridation.

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