

Centers for Disease Control
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RESPONSE TO CLAIMS BY JOHN COLQUHOUN, NEW ZEALAND,
OF NEW EVIDENCE ABOUT FLUORIDATION

A two-part paper, "Fluoridation in New Zealand: New Evidence," by John Colquhoun, was published in American Laboratory, May and June 1985. The paper stated that water fluoridation provides no dental benefits, is harmful to health, and damages children's teeth. Because Mr. Colquhoun served as Principal Dental Officer, Auckland Health District, New Zealand, for 12 years, these articles have caused much concern about fluoridation. The following statements have been excerpted from a letter written in response to Colquhoun's claims by Peter B. V. Hunter, Principal Dental Officer (Research), for the Director, Division of Dental Health, Head Office, Wellington, New Zealand:

"There is a substantial body of evidence to demonstrate the dental benefit of fluoridation in New Zealand. The erroneous conclusions Colquhoun reaches result from his use of unsatisfactory measures of dental disease and an inadequate assessment of socio-economic status. He also makes inappropriate comparisons."

"Colquhoun bases his claims of damage to children's teeth on a survey he carried out in Auckland. Unfortunately, no protocol was prepared for the study and it is not possible to reconcile the discrepancies. However, some of the defects in the study design are as follows: Selection of the schools in the fluoridated area was not random. Residential history was not established for the children so the history of exposure to fluoridation was not accurately established. No attempt was made to bring the children from the fluoridated and nonfluoridated areas to a central examination site to ensure that the examiners were unaware of the place of residence of the children. An independent scientific study by the Medical Research Council of New Zealand has shown that children from the fluoridated parts of Auckland do not have significantly more disfiguring tooth defects than those from nonfluoridated areas."

"The other measure used by Colquhoun, the percentage caries free, is a useful measure to differentiate between groups of young children. However, as children get older the stage is reached where most have some fillings or dental decay and the proportion "caries free" is smaller. The percentage caries free is then no longer such a useful measure to differentiate between groups since it can be markedly influenced by a single treatment planning decision. This is the situation for 12-13 year old New Zealand children."

"Another serious flaw in Colquhoun's comparisons is a failure to clearly establish the place of residence of children and hence, fluoride exposure. Examination of the dental history charts of the 325 12-13 year olds classified by Colquhoun in the nonfluoridated part of the Auckland Health District has revealed that 123 (38 percent) attended school in the nonfluoridated area but actually lived in the fluoridated area."

"The Department of Health continues to endorse the fluoridation of public water supplies as a proven health measure and the single most effective known means to preventing dental caries on a community basis."

Dental Disease Prevention Activity
Center for Prevention Services

References

Colquhoun, J. Fluoridation in New Zealand: new evidence, Part One. Am. Lab., 66-72, May 1985.

Colquhoun, J. Fluoridation in New Zealand: new evidence, Part 2. Am. Lab., 98-109, June 1985.

Hunter, Peter B.V. Principal Dental Officer (Research), Division of Dental Health, Head Office, Wellington, New Zealand. Personal correspondence, August 21, 1985.