

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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"DENTAL MILK"

Frequently, when health professionals suggest action by a community to initiate water fluoridation, letters from the Borrow Dental Milk Foundation in England appear in the letters-to-the-editor columns of the local U.S. newspapers. These letters encourage the adoption of "dental milk" (fluoridated milk) as a better way to administer fluoride.

The Dental Officer of the British Department of Health and Social Security, on April 18, 1975, informed us that fluoridated milk as a public health measure is not used in England, and no research of the public health or physiological aspects of the measure has been carried out in that country. The British Department of Health and Social Security "has carefully examined certain proposals and is not satisfied of the safety of fluoridated milk." It was further indicated that it is doubtful that it would be practical even to try to regulate the fluoride content of milk to be compatible with the various natural fluoride concentrations in water supplies.

"Dental Milk for Children," a booklet which is circulated by the Borrow Dental Milk Foundation, contains "Three Scientific Studies" in addition to a "Feasibility Study" by Mr. Borrow. Comments on these studies, as excerpted from a more detailed memorandum issued by the Fluoridation Society of London, England, in August 1973, are attached.

The following additional information on the status of fluoridated milk in Switzerland was obtained from Dr. T. M. Marthaler of the Dental School in Zurich on June 9, 1975.

The original project (1955 approximately) of fluoridating milk had envisaged fluoridation of all milk of the city of Winterthur (pop. 90,000). The Milk Association rejected

this and fluoridation has to be done in the households. This "custom" is now fading. . . .

. . . .

I think there are at present no projects of fluoridated milk in Switzerland.

. . . .

On May 21 and 22 there was a Symposium in Geneva sponsored by the Borrow Milk Foundation. I left this meeting with the opinion that milk never can fulfill the task of a fluoride vehicle as does water. . . .

There is little scientific evidence to support a project to fluoridate milk; and it is difficult to envision a scientifically proven effective concentration that could take into account the varying amounts of fluoride which are naturally present in virtually all drinking water supplies.

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Enclosure

Excerpts from Addition of Fluoride to Milk, The Fluoridation Society, London, England, August 1973.

The Borrow booklet includes "Three Scientific Studies" in addition to a "Feasibility Study" by Mr. Borrow himself. Before the first study by Dr. Ziegler of Winterthur, Switzerland is a Declaration on Fluoridation of Milk, by the same Dr. Ziegler, dated 4th August 1971. In this he states "on the basis of more than ten years experience in Winterthur, Switzerland, the fluoridation of milk can be declared as an effective prophylactic measure against dental caries. The statistical research on caries carried out by the official school dentist (Dr. R. Wirz) has proved the effectiveness of this method". Yet on the next page Ziegler's report on "Milk Fluoridation" is dated 1962 and gives no results on caries experience in Winterthur. The rather unimpressive results published by Wirz in 1964 are not reproduced.

The next article by Rusoff et al from Louisiana is reprinted from the American Journal of Clinical Nutrition, also dated 1962, and gives the results of what the authors term in the Summary as a "pilot study". Only 65 children were in the treated group and 64 in the control with an age span at the start of 9-12 years. Apart from the inadequate size of the groups, it appears to have been a well run study extending over 3 1/2 years with a follow-up examination 18 months after cessation of fluoride ingestion. Local dentists did the examinations, using radiographs, and did not know to which group the children belonged. Unfortunately, the percentage of D.M.F. teeth per child at the start of the study was higher in the fluoride group than in the controls, which makes difficult the interpretation of results; but there was less new caries in the experimental group compared with controls and this was just statistically significant.

The third scientific study is entitled "First Enquiries into the Addition of Fluoride to Milk" by Professor L. Leali and Dott. M. Pastore of the Milk Centre in Milan. Their studies indicate that the addition of sodium fluoride to milk at the concentration used in the fluoridised milk does not effect [sic] the principle [sic] physico-chemical characteristics of the product.

Other studies have taken place in Japan, but when compared with the evidence for the effectiveness of water fluoridation, that for fluoridised milk is meagre in the extreme. It has certainly not been shown that dental caries can be halved by this method.