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MISREPRESENTATIONS OF NATIONAL RESEARCH
COUNCIL'S: FLUORIDES

The 1971 Report of the National Research Council, National Academy of Sciences, "Fluorides: Biologic Effects of Atmospheric Pollutants," has been variously referenced by opponents of fluoridation as allegedly questioning the safety and effectiveness of fluoridation for dental health.

The National Research Council (NRC), which has long endorsed fluoridation, has indicated that the information in their report, has been distorted and misrepresented. A statement to this effect, prepared by Dr. Jaroslav J. Vostal who was chairman of the NRC panel on fluorides, was released by the NRC on February 7, 1974, and appears below. (Dr. Vostal serves on the faculty of the Department of Pharmacology and Toxicity, University of Rochester School of Medicine and Dentistry, Rochester, New York.)

"During the past few months, and increasingly in recent weeks, letters to the editors in connection with the safety and usefulness of fluorides in drinking water have appeared in newspapers in several parts of the nation, citing a report of the National Academy of Sciences on Fluorides (1). Some of these letters contain common phraseology, as follows:

In 1971, the prestigious National Academy of Sciences published a review which substantiates the excessive contamination by fluorides in the environment, in humans, other animals and plants. It states that unequivocal evidence does not exist that fluoride prevents dental decay, or is essential to any animal or plant.

"The first sentence of the above quote is a clear distortion of the report prepared by a panel on which I served as chairman. Cases of fluoride contamination of the environment to the level that would constitute a danger to populations, animals or plants are relatively rare. Such as have occurred generally resulted from occupational exposures or were limited to particular areas closely adjacent to industrial processes or geological sources.

(1) Fluorides, NRC-NAS Report prepared by the panel on fluorides of the Committee on Biologic Effects of Atmospheric Pollutants with the intention to provide a scientific basis for air quality criteria document on airborne fluoride, 295 pp., National Academy of Sciences, Washington, D.C., 1971

"The second sentence of the quote appears to be incorrectly assembled from page 66 of the report, where it is stated:

Unequivocal evidence that fluorides perform any vital function in animals has not yet been produced. There is no doubt that an increase in the fluoride intake of the population in most parts of the world does result in a decrease in incidence of dental caries in that population. That in itself is no indication of fluorine essentiality, inasmuch as caries incidence depends on many factors, and many persons with perfectly sound dentition have had only minimal exposure to fluoride.

"On page 67 the report states further that:

. . . the beneficial effects of fluoride on dental health or bone metabolism should be considered as pharmacological responses, and not as a cure of pre-existing deficiency condition.

"A reasonable and correct paraphrase of these statements might be: Fluoride has without any doubt a beneficial pharmacological effect in preventing tooth decay, but this does not mean that the presence of fluoride in the diet is indispensable for any vital (i.e. important and useful) function, including the integrity of the dental system, in animals or man."

It should be noted that the comments on the essentiality of fluoride in the referenced NRC report were written prior to the publication of recently completed research that has confirmed the essentiality of fluoride for growth and reproduction (2).

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- (2) Schwarz, Klaus, and Milne, D. B.: "Fluorine Requirement for Growth in the Rat," Bioinorganic Chemistry 1:331-8, 1972.

Messer, H. H., Armstrong, W. D., and Singer, L.: "Fertility Impairment in Mice on a Low Fluoride Intake," Science 177:893-4, September 8, 1972.