

Evidence for a Lack of an Effect of Dietary Fluoride Level on Reproduction in Mice¹

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ABSTRACT The possible essentiality of fluoride for reproduction was studied in female mice fed a low-fluoride (<0.5 ppm F) basal diet for three generations. Reproduction of mice fed this basal diet was the same as when mice were fed the basal diet supplemented with 2 or 100 ppm F. A previous study [Messer et al. (1973) *J. Nutr.* 103, 1319-1326], utilizing the same diet did result in an impairment of reproduction and the development of an anemic condition. The results of the present study suggest that the apparent essentiality of fluoride previously observed was due to a pharmacological effect of fluoride in improving iron utilization in a diet marginally sufficient in iron. The data do not support the previous claims of an essential role of fluoride in reproduction. *J. Nutr.* 106: 1115-1122, 1976.

INDEXING KEY WORDS fluoride · copper · iron · reproduction · essentiality · mice

Although the value of an optimal dietary growth in the rat and by Messer et al. intake of fluoride in reducing the incidence (12) that fluoride is required for normal