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FLUORIDE IN THE BIOLOGIC FOOD CHAIN

Opponents of fluoridation have raised questions concerning possible concentration of fluoride through the biologic food chain. This question has been addressed in the National Academy of Sciences booklet, Effects of Fluorides in Animals, published in 1974. The following is excerpted from their statement on the biologic food chain:

. . . The damaging effects of fluoride occur primarily in animals that ingest rations high in fluoride. Indeed, domestic animals can serve as a protective barrier for humans. Approximately 99 percent of the fluoride retained in the body is stored in bone, and only slight increases in the concentration of soft tissue fluoride occur even at high levels of dietary fluoride intake. Milk from cows consuming high levels of fluoride shows only slightly elevated fluoride, indicating that the mammary gland is not a primary route for excretion. There is therefore little danger to humans from the consumption of meat or milk from domestic animals even if the animals have ingested excessive fluoride. A few meat and fish products prepared for human consumption contain portions of comminuted bone that may contribute to a higher fluoride content. The proportion of the total diet represented by these products, however, would generally be very small indeed.

This report was prepared by the Committee on Animal Nutrition and the Subcommittee on Fluorosis. Reports issuing from a study committee of the National Research Council are reviewed by an independent group of qualified individuals before dissemination.

Division of Dentistry
9000 Rockville Pike
Bethesda, Maryland 20014