AMERICAN ACADEMY OF PEDIATRICS
COMMITTEE ON NUTRITION

ABSENCE OF VITAMIN D IN NONFAT DRY MILK

The Committee on Nutrition of the American Academy of Pediatrics has strongly endorsed the use of milk and infant formula products as primary vehicles for vitamin D supplementation to ensure a total vitamin D intake of 400 I. U. per day by all infants and children.1,2 Although in the United States there are significant regional differences with respect to dairy practices in fortifying fluid milk, almost three-fourths of all whole milk sold at retail is fortified with vitamin D, and almost all evaporated milk and infant formula products contain 400 I. U. of vitamin D per reconstituted quart. In addition, vitamin D is readily available in vitamin supplements, and, undoubtedly as a result of the wide distribution and ready availability of vitamin D, the incidence of infantile rickets in the United States has remained at a very low level.3

This report draws attention to the lack of vitamin D in nonfat dry milk, a product used in significantly increasing amounts for preparing milk for home use for children, and possibly for infants. The use of nonfat dry milk has been accelerated recently by the increase in prices of fluid milk. For example, in 1965, the last year for which figures are available, consumer sales of nonfat dry milk amounted to 2.5 billion pounds of fluid equivalent, or about 5% of the total national consumption of milk. This total reflects an increase in consumption of almost 70% over the past 10 years.

The lack of vitamin D in certain major sources of milk for the population invites the reappearance of rickets. In Canada, the addition of vitamin D to fluid milk was not permitted until recently and is not now practice even now. As a consequence, rickets continues to appear and constitutes a continuing and significant cause of morbidity in infancy and childhood. One hospital in Montreal reported almost 200 cases in the latest annual tabulation.4

Since nonfat dry milk is not fortified with vitamin D, because this was not included in the definition of the product (Standard of Identity) established by Congress in 1944, the Committee on Nutrition of the American Academy of Pediatrics recommends that infants and children who receive this source of milk also be given a vitamin supplement containing vitamin D to ensure consumption of 400 I. U. of the vitamin per day.

It is of nutritional interest, though obviously unrelated to the problem of vitamin deficiency rickets, that nonfat dry milk contains virtually no vitamin A, the substance having been removed during the manufacturing process. While there are no data in this country on the potential danger from vitamin A deficiency, there is evidence that when nonfat dry milk becomes a major source of nutrition in countries in which the national diet is low in vitamin A content, xerophthalmia has appeared.

While the general level of nutrition of North American children receiving medical supervision by pediatricians appears sound, the facts discussed above preclude complacency. They illustrate the potential threat to nutrition of infants and children when the physician remains uninformed on major changes in feeding practices or manufacturing processes.

Charles U. Lowe, Chairman
David Baird Cousin
Felix P. Heald
Malcolm A. Holliday
Donough O'Brien
George M. Owen
Howard A. Pearson
Charles R. Schriver
L. J. Filer, Jr., Consultant
O. L. Kline, Consultant

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4. Personal communication, Canadian Pediatric Society, Committee on Nutrition.
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CHARLES U. LOWE, DAVID BAIRD COURSIN, FELIX P. HEALD, MALCOLM A. HOLLIDAY, DONOUGH O'BRIEN, GEORGE M. OWEN, HOWARD A. PEARSON, CHARLES R. SCRIVER, L. J. FILER, JR., and O. L. KLINE

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