

DIETARY FIBRE AND CONSTIPATION IN PRE-SCHOOL AGE CHILDREN

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There are few data concerning dietary fibre intakes and bowel function in children and yet more than 1% of 4-13 year olds in the UK suffer with constipation (Freeman 1978). In view of the importance of early childhood in establishing dietary habits, the present study sought to establish whether the incidence of constipation in 4-5 year old children was associated with dietary fibre intake, and to determine the most popular high fibre foods.

A survey was conducted on 366 children (67% of the 4-5 year old population) attending kindergartens in the Latrobe Valley of Victoria. Data was collected retrospectively over three consecutive 24 hour periods using questionnaires. All food items consumed were qualitatively recorded as were bowel function, frequency of elimination, and the appearance, size and texture of stools.

Intakes of dietary fibre were assessed by assigning a value of 1 or 0 to each food item depending on whether the content of dietary fibre was greater than or less than 2g/100g food. Summation of the values for each individual's three day intake, produced results that were an index of dietary fibre consumption (Dietary Fibre Score).

A diagnosis of constipation was based upon the evaluation of several parameters (Nelson and Vaughan 1975) including, passage of small hard stools, infrequent elimination and difficulty of elimination.

TABLE 1. Incidence of constipation in 4-5 year old children

	Number	Number diagnosed as constipated
Boys	205	9
Girls	161	15
Total	366	24

Constipation was diagnosed in 6.5% of children, more girls being affected than boys. The dietary fibre scores were arranged in three groups containing equal numbers of children and representing low medium and high fibre intakes. There was a significant ($P < 0.01$) inverse relationship between fibre score and the incidence of constipation. The most frequently consumed foods with appreciable fibre contents were breakfast cereals and white bread.

These findings indicate that nutrition education programmes may be of benefit in helping to prevent constipation and associated problems in pre-school children.

FREEMAN, N.V. (1978) *Practitioner* 221 : 333.

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