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No Evidence Of 'Muesli-Belt Malnutrition' In British Toddlers

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Researchers at Bristol University have found no evidence that very low-fat diets deficient in vitamins and minerals are a common problem in British toddlers.

For many years there has been a debate about how much fat should be in the diet of pre-school children. This has been fuelled by reports from the USA of parents feeding their children inappropriate diets based on adult 'health foods'. In some cases these excessively low-fat diets were insufficient in energy and other nutrients and resulted in the child not growing properly.

This has been labeled 'muesli-belt malnutrition'. As a result it has been suggested that fat intake in children under two years should not be limited. The University of Bristol team have studied the diets of British children aged 1½ and 3½ to see whether low nutrient intakes were a problem for children on lower-fat diets.

The findings were announced by nutritionist Pauline Emmett, from the Children of the 90s project. This study based in Bristol, has monitored the health and development of over 14,000 children from pregnancy. A 10% sub-sample have been studied in much more depth, including their diet. Almost 1000 parents completed detailed diaries, listing everything their toddler ate and drank over three days at 18 months and again at 3½ years. The children were divided into 4 groups according to how much of their dietary energy came from fat. Food and nutrient intakes were compared between fat intake groups.

Mrs Emmett said that 'None of the children were taking excessively low-fat diets and there was no evidence of 'malnutrition'. However the children in the lowest fat group were slightly more likely to have low intakes of zinc and vitamin A and perhaps more surprising, children in the highest fat group were more likely to have low intakes of iron and vitamin C.

Mrs Emmett pointed out that 'the clue to this is in differences between groups in amounts of various foods eaten. The high-fat group ate less fruit and fruit juice, good sources of vitamin C. They also ate more sausages, burgers and meat pies, which have a lower

iron content than plain meat. The low-fat group ate less cheese and milk, which are good sources of vitamin A.

The researchers concluded that most children consumed an adequate diet irrespective of their fat intake. Both higher-fat and lower-fat diets, as eaten, had advantages and disadvantages.

NOTES

1. "Fat content of the diet among pre-school children in Britain; relationship with food and nutrient intakes." Rogers I, Emmett P, ALSPAC Study Team. European Journal of Clinical Nutrition 2002: 56; 252-263

ALSPAC The Avon Longitudinal Study of Parents and Children (also known as Children of the 90s) is a unique ongoing research project based in the University of Bristol. It enrolled 14,000 mothers during pregnancy in 1991-2 and has followed most of the children and parents in minute detail ever since.

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