



THE HEALTH SUPPLEMENTS INFORMATION SERVICE COMMENTS ON MULTIVITAMIN SUPPLEMENTATION IN CHILDREN AND TEENAGERS

2nd February 2009 – A report published in the February issue of US journal *Archives of Pediatrics & Adolescent Medicine* says that approximately 34% of children and adolescents had used vitamins and mineral supplements during the last month.

Commenting on the report, Dr Carrie Ruxton, independent nutritionist and scientific advisor to HSIS notes: “The researchers analysed data from 10,828 American children age 2 to 17 who participated in the 1999-2004 National Health and Nutrition Examination Survey. As part of the study, parents filled out questionnaires and participated in household interviews, and children and teens underwent medical examinations.

“The researchers found that the children and adolescents most likely to use vitamin and mineral supplements were those with healthier diets, more active lifestyles and better health care access. In contrast, children at the highest risk for deficiencies—including those with less healthy patterns of diet and exercise, more obesity, lower income and food security, poorer health and less access to health care— were less likely to use vitamin and mineral supplements.

“This is not a new finding. Intakes of fruit and vegetables, and nutrients from food have been found to be higher in supplement users, including adolescents, in several previous studies.¹²³ In other words, the adolescents most likely to benefit from supplements do not seem to be the ones using them.”

¹ O'Brien MM, Kiely M, Harrington KE, Robson PJ, Strain JJ, Flynn A. The North/South Ireland Food Consumption Survey: vitamin intakes in 18-64-year-old adults. *Public Health Nutr* 2001;4(5A):1069-79.

² Dwyer JT, Garcea AO, Evans M, Li D, Lytle L, Hoelscher D, et al. Do adolescent vitamin-mineral supplement users have better nutrient intakes than nonusers? Observations from the CATCH tracking study. *J Am Diet Assoc* 2001;101(11):1340-6.

Dr Ruxton adds: “The UK National Diet and Nutrition Surveys in children⁴ and adolescents⁵ report that significant numbers of young people have intakes of vitamins and minerals which fail to meet recommended levels. For example, about half of pre-school children, on average, have vitamin A intakes which fell below the recommended level of 400µg/day. Of those under 4 years of age, 95% failed to achieve the recommendation for vitamin D and 84% failed to achieve the recommendation for iron. Among those aged 4 years and over, poor iron intakes were seen in more than half. When blood levels were measured, one in eight of the under 4s were anaemic (defined by haemoglobin concentrations < 110g/l) while one in 12 of all children were anaemic.

“Among 11-14 year olds, 45% of girls had poor intakes of iron, increasing to 50% in 14-18 year olds. Up to a quarter of girls aged over 11 years failed to meet the recommendation for calcium, an important bone health mineral. Poor magnesium intakes were seen in a third of boys and over half of girls aged over 11 years.. More recent surveys of British children have backed up these findings.

In summary, Dr Ruxton notes: “British national surveys have shown that significant numbers of children and adolescents have intakes of vitamins and minerals below recommended intakes. Moreover, **the Food Standards Agency (FSA) recommends vitamin supplementation in children up to the age of 5 years, particularly if the quality of the diet cannot be assured. The FSA also suggests that women with heavy periods (some of whom will be teenagers) will not be able to meet their iron requirement from the diet, suggesting that a supplement will be necessary.**

“As to safety, there is no evidence that using supplements is harmful.”

³ Stang J, Story MT, Harnack L, Neumark-Sztainer D. Relationships between vitamin and mineral supplement use, dietary intake, and dietary adequacy among adolescents. *J Am Diet Assoc* 2000;100(8):905-10.

⁴ Gregory J, Collins D, Davies P, Hughes J, Clarke P. National Diet and Nutrition Survey: children aged 1 ½ to 4 ½ years. Volume 1. Report of the Diet and Nutrition Survey. London: H.M. Stationery Office. . 1995.

⁵ Gregory J, Lowe S, Bates C, Prentice A, Jackson L, Smithers G, et al. National Diet and Nutrition Survey: young people aged 4 to 18 years. Volume 1 Report of the Diet and Nutrition Survey. London: The Stationery Office. . 2000.

**For further information or to arrange an interview with an HSIS spokesperson,
please contact:**

Nicky Smith, Nexus Healthcare

020 7808 9750

Eva Levin, Nexus Healthcare

0207 808 9753

Louise Nathanson, Nexus Healthcare

0207 052 8856