

Dietary Supplements and Adverse Events

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Introduction

Scientific evidence suggests that supplementation food [herbal or complementary nutritional products and micronutrients (vitamins and minerals)], can be beneficial to a small group of persons whose diet is not balanced, and has evidence of deficiency of a particular nutrient in the body. However, it has seen an increase in consumption of these supplements in people involved in physical or athletic activity, and also the adverse effects [1-9].

Geller and colleagues used data from 63 emergency departments because of adverse events related to dietary supplements. A total of 3667 cases, the authors estimated that 23,005 (95% confidence interval [CI], 18,611 to 27,398) emergency department visits per year were attributed to adverse events related to dietary supplements. These visits resulted in 2154 hospitalizations (95% CI, 1342 to 2967) annually. Such visits frequently involved young adults between the ages of 20 and 34 years (28.0% of visits; 95% CI, 25.1 to 30.8) and unsupervised children (21.2% of visits; 95% CI, 18.4 to 24.0). Herbal or complementary nutritional products for weight loss (25.5%; 95% CI, 23.1 to 27.9) and increased energy (10.0%; 95% CI, 8.0 to 11.9) were commonly implicated. Weight-loss or energy products caused 71.8% (95% CI, 67.6 to 76.1) of supplement-related adverse events involving chest pain, palpitations, or tachycardia, and 58.0% (95% CI, 52.2 to 63.7) involved persons 20 to 34 years of age. Among adults 65 years of age or older, choking or pill-induced dysphagia or globus caused 37.6% (95% CI, 29.1 to 46.2) of all emergency department visits for supplement-related adverse events; micronutrients were implicated in 83.1% (95% CI, 73.3 to 92.9) of these visits [10].

Adverse events commonly involve cardiovascular manifestations from weight-loss or energy products among young adults and swallowing problems, often associated with micronutrients, among

older adults. Preventive and educational programs should be implemented to reduce adverse events related to dietary supplements.

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