

Consumption of fruit and vegetables among elderly Irish people in long-term institutionalised care: the ELDERMET project

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Fruit and vegetables are an important source of vitamins and minerals such as vitamin C, folate, K and β -carotene⁽¹⁾. High fruit and vegetable consumption may reduce the risk of several chronic diseases, including cancers, CVD, hypertension and stroke⁽²⁾. The benefits of fruit and vegetable consumption continue into old age. In fact, with advancing age the requirements for some antioxidants may be increased⁽³⁾. The Irish food-based dietary guidelines therefore recommends consumption of at least five portions of fruit and vegetables daily. The aim of this study was to establish the frequency of consumption of fruit and vegetables within a sample of institutionalised elderly, Irish subjects (*n* 99; twenty-six men and seventy-three women; aged 66–104 years), who participated in the ELDERMET project.

Dietary data was collected using a validated semi-quantitative, 147-item FFQ. Fruit and vegetables that contributed to the recommended five portions a day included all fresh, frozen and canned fruit and vegetables, pure fruit drinks, dried fruit, vegetable soups, tomato-based pasta sauces, baked beans and other pulses. Potatoes and nuts were excluded. In order to estimate the number of servings of fruit and vegetables consumed on a daily basis, frequency of consumption was converted to a single daily serving. The number of servings of fruit and vegetables was then calculated by adding the daily value for each relevant fruit/vegetable item. Statistical analysis was conducted using PASWTM (version 18.0).

Overall, fruit and vegetable intake was below the recommended 5+ servings (see Table). The most commonly consumed vegetables were carrots, parsnips/turnips and cabbage, while the most commonly consumed fruit items were pure fruit drinks, bananas and apples. A large proportion of subjects (71.7%) did not meet recommendations to consume 5+ servings of fruit and vegetables daily. Almost half (46.5%) of these subjects consumed less than three servings a day. Percentage compliance with recommendations for other food groups was also poor. Over all, one-fifth (21.2%) of subjects consumed dietary supplements (including vitamin and mineral supplements) on a daily basis that may contribute to vitamin and mineral intakes.

	Daily consumption (servings)*	SD
Total fruits	1.3	1.8
Total vegetables	2.4	1.3
Total fruit and vegetables	3.7	2.6

*Median number of servings per day.

In conclusion, fruit and vegetable intakes are low in this elderly cohort compared with current dietary recommendations. As a consequence, a large proportion of this population may be at risk of inadequate intakes of important vitamins and minerals. There is a need to explore the reasons for poor compliance with consumption recommendations and devise strategies to address this.

1. Riediger *et al.* (2008) *J Am Coll Nutr* **27**, 306.
2. Sabzghabae *et al.* (2010) *Int J Prev Med* **1**, 99.
3. Johnson *et al.* (1998) *Age Ageing* **27**, 723.