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Gender differences in food intake among Irish community-dwelling elderly subjects: The ELDERMET project

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The proportion of citizens older than 65 years of age in Western populations is increasing. It is therefore important to investigate the fundamental role of diet in the prevention of age-associated chronic disease⁽¹⁾. In addition, gender differences in food consumption and nutrient intakes are well recognised⁽²⁾, and need to be further explored and addressed.

The aim of this study was to establish the frequency of consumption of the major food groups within a cohort of elderly, Irish subjects ($n = 210$; 113 male and 97 female 64–93 y), who participated in the ELDERMET project.

Dietary data was collected using a validated semi-quantitative, 147-item food frequency questionnaire (FFQ). Individual food and beverage items were aggregated into 30 (mutually exclusive) food groups. Median daily serving intake was calculated and statistical analysis was conducted using PASW[®] (version 18.0) for two age categories, 64–75 yrs and ≥ 76 yrs.

Females (64–75y) consumed significantly ($P < 0.05$) more unrefined wholegrain cereals, dietary supplements, salad dressings, probiotic yoghurts, fresh soups, fish, hot beverages and fruit than males. Males of the same age range consumed significantly ($P < 0.05$) more processed soups, meat products, soft drinks, alcohol, meat and refined cereals (see table). Cross-gender, food group variance among the more senior group ($n = 102$) was limited to alcohol intake; with males consuming significantly more than females ($P < 0.05$). In addition, females from both age groups showed higher compliance rates with the recently revised Irish dietary guidelines for adults aged > 51 y⁽³⁾.

Food Group ^b	Median Daily Serving [interquartile range]		<i>P</i> ^a
	Male	Female	
Refined cereals	0.00 [0.00, 0.03]	0.00 [0.00, 0.01]	0.038
Unrefined wholegrain cereals	0.65 [0.01, 1.00]	1.00 [0.71, 1.03]	0.002
Breads, Rolls, etc	2.33 [1.65, 4.04]	2.04 [1.15, 2.98]	0.122
Potatoes, boiled, mashed, etc.	0.94 [0.61, 1.03]	1.00 [0.62, 1.04]	0.476
Fruit	2.11 [1.29, 3.31]	2.95 [1.49, 4.54]	0.049
Vegetables	3.07 [1.93, 4.35]	2.90 [2.18, 5.39]	0.171
Salad dressings	0.03 [0.00, 0.28]	0.28 [0.03, 0.30]	0.008
Fresh soups	0.03 [0.03, 0.00]	0.15 [0.01, 0.29]	0.032
Processed soups	0.03 [0.00, 0.17]	0.00 [0.00, 0.03]	0.001
Meat	0.60 [0.45, 0.77]	0.45 [0.21, 0.71]	0.016
Meat products	0.15 [0.03, 0.26]	0.05 [0.01, 0.15]	0.005
Chicken/Poultry	0.14 [0.03, 0.29]	0.14 [0.14, 0.29]	0.085
Fish	0.17 [0.05, 0.29]	0.24 [0.15, 0.44]	0.046
Eggs	0.29 [0.08, 0.71]	0.29 [0.15, 0.30]	0.729
Probiotic yoghurts	0.00 [0.00, 0.61]	0.29 [0.00, 1.00]	0.010
Dietary supplements	0.00 [0.00, 1.00]	1.00 [0.00, 2.00]	0.006
Alcoholic drinks	0.31 [0.01, 1.14]	0.16 [0.01, 0.40]	0.009
Soft drinks/ sweetened drinks	0.02 [0.00, 0.26]	0.00 [0.00, 0.03]	0.009
Hot beverages	4.00 [2.31, 5.75]	4.54 [3.50, 6.03]	0.047

^a*P* is the significance of the gender difference by the Mann Whitney U Test. A *P* value of < 0.05 was considered as statistically significant. ^bOther food groups analysed incl.chips, pasta/rice, fish products, chicken products, butter, spreads, high-fat dairy, low-fat dairy, desserts/sweets, savoury snacks and ready meals for which no significant differences ($P < 0.05$) existed between groups.

In conclusion, gender differences in food intakes were detected among older Irish adults, especially among males aged 64–75 yrs. Identification of causes related to these differences could influence public health interventions to improve diet and health of the older adults.

1. Anderson AL *et al.* (2011) *Journal of the American Dietetic Association* **111**(1): 84.
2. Bates C *et al.* (1999) *European Journal of Clinical Nutrition* **53**(9): 694.
3. Flynn MAT *et al.* (2012) *Public Health Nutrition* **15**(3): 527.