Food intake in relation to 88-month survival of elderly Japanese

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Increasing longevity establishes the need for more attention to problems of nutrition and health in the elderly. In 1991, a cross cultural study was undertaken under the auspices of the IUNS project "Food Habits in Later Life" (1). As part of the project, data on food intake and anthropometric measurements of 89 (43 men and 46 women) Japanese aged 70 years and over were recorded at study entry. The first mortality follow-up in 1996 has been reported (2). The death of 18 men and 13 women were confirmed in January 1999 as the 88-month mortality data was followed up. The aim of this observational study was to evaluate the role of diet in survival of elderly Japanese.

Food intakes at study entry in 1991 were compared between the survivors and deceased for both men and women. After adjustment for energy intake, 2500 kcal for men and 2000 kcal for women, it was found that fish intake in men was significantly greater in the survivors. The consumption of nuts and seeds and fungi were significantly higher for women in the "survivors" group.

	Men		Women	
	Survivors (n=25)	Deceased (n=18)	Survivors (n=33)	Deceased (n=13)
Cereals	358 ± 89	318 ± 99	268 ± 68	293 ± 51
Vegetables	414 ± 238	470 ± 308	431 ± 201	360 ± 155
Fruits	140 ± 95	111 ± 110	133 ± 103	162 ± 93
Nuts & seeds	10 ± 32	3 ± 10	4 ± 17	0 ± 0**
Fungi	4 ± 6	4 ± 11	4 ± 6	3 ± 7*
Fish	144 ± 93	91 ± 51*	88 ± 54	75 ± 33
Meat	42 ± 46	53 ± 43	42 ± 31	32 ± 29
Eggs	49 ± 57	44 ± 38	37 ± 26	43 ± 38
Milk	164 ± 187	170 ± 159	156 ± 124	184 ± 135

[1]mean ± SD
Wilcoxon Rank-sum test: *P < 0.05; **P<0.01

In conclusion, the intakes of fish, fungi, nuts and seeds may have beneficial effects on survival of elderly Japanese.

1. Wahlqvist ML, Hsu-Hage BH-H, Kouris-Blazos A, Lukito W, et al. Food Habits in Later Life. A cross-cultural study. United Nations University Press, 1995.
2. Darmadi I, Horie Y, Wahlqvist ML, Kouris-Blazos A, Horie K, Sugase K, Wattanapenpaiboon N. Food and nutrient intakes and overall survival of elderly Japanese. Asia Pacific J Clin Nutr 2000;9(1):7-11.