Malnutrition in elderly nursing home residents - fact or fallacy

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The institutionalised elderly are considered a nutritionally vulnerable group. A high prevalence of malnutrition has been reported in American nursing home residents (1). In Australia, low energy intakes have been reported (2) and the media have described the food served in nursing homes as 'Third World' diets (3). However, despite this there is no data available about the nutritional status of Australian nursing home residents, in particular those consuming texture modified diets.

The aims of this study were to assess the macronutrient status of nursing home residents and to ascertain whether dietary texture may impact on nutritional status. The macronutrient status of 83 nursing home residents (23 males and 60 females) consuming normal, minced and vitamised diets were assessed by measuring weight and knee height, which is an accepted measure of height in the elderly.

	Age (years) 1	Weight (kg) 1	BMI (kg/m ²) 1
Normal Diet			
Males (N=6)	80.7 ± 7.5	75.9 ± 11.3	25.7 ± 4.2
Females (N=13)	83.5 ± 6.7	59.5 ± 7.3	24.3 ± 3.2
Minced Diet			
Males (N=7)	83.9 ± 6.1	68.1 ± 14.2	22.7 ± 5.1
Females (N=15)	84.5 ± 6.2	53.1 ± 13.1	$21.4 \pm 4.5*$
Vitamised Diet			
Males (N=10)	80.7 ± 8.8	55.8 ± 8.3*¶	19.0 ± 2.7
Females (N=32)	85.8 ± 8.8	$44.7 \pm 10.2**9$	$18.0 \pm 3.5**\P$

mean \pm SD, * P<0.05, ** P<0.001 compared to control, ¶ P<0.05 minced compared with vitamised. Differences between groups established using ANOVA followed by Fishers PLSD test where appropriate

Residents' consuming normal and minced diets were not underweight. However, female residents' eating vitamised diets were underweight when compared with those consuming both minced and normal diets.

This study illustrates that nursing home residents consuming texture modified diets are at increased risk of malnutrition and that further research is needed to determine the reasons for this decline in nutritional status and ways of maximising oral intake.

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