

The core food groups - many paths, one way?

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The 'core food groups' concept was developed to provide advice on appropriate food choices and amounts for Australians (1). Its main use was perceived as providing a consistent basis for the development of nutrition education tools to successfully convey complex messages.

The 'core food group' recommendations were formulated after a modelling process. The quantity of five core food groups (i.e. Cereals, Fruit, Vegetable, Meat and alternatives group and Milk group) which provide at least 70% of the Recommended Dietary Intakes (RDIs) of nutrients was determined (except energy which was minimised). Modelling was carried out for different population groups which included children aged over 4 years, adults, and pregnant and lactating women. A single recommendation for consumption from the 5 core food groups resulted for each of six population groups depending on age or status (pregnant/lactating).

A single set of recommended quantities may be attractive to promote a simple dietary message however a much wider range of food group based recommendations is possible and consistent with providing at least 70% of nutrient RDIs. We examined combinations of number of serves from 5 food groups using the same parameters as those used to develop the core food groups model, but allowing energy intake to be up to 5000 kJ (38% to 68% of energy requirements depending on the population group). We found that 124 different combinations meet 70% of nutrient RDIs for each population group (except pregnant or lactating women). These combinations differ substantially in character. Examples are shown in the table compared to the core food group recommendation for adults.

	Number of serves from each food group					Energy
	Cereals	Meat	Fruit	Vegetable	Milk	
NHMRC recommendation	7	~3 (85g)	2	5	4.5	5039
Model 1	2	8	3	3	5	4973
Model 2	3	3	6	5	4	4937
Model 3	8	2	1	4	5	4827
Model 4	1	7	1	8	6	4759

Within each group, the number of combinations of serves meeting the requirements of the model ranged from 6861 (children 4 to 7 years) to 540 (females 19 to 54 years).

The perceived need for a simple set of quantitative food based dietary recommendations has led to the development of an inflexible model of 'the right diet'. Intake which meets recommendations for a minimum amount of a range of nutrients can be achieved by many fundamentally different diets. Wider recognition of this fact is important to maintain the credibility of public health nutrition advice.

1. Cashel K, Jeffreson S. The core food groups: the scientific basis for developing nutrition education tools. NHMRC AGPS Cat No 94 2562 6.