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Dietary intakes of children aged between 1–3 years attending a childcare centre in Dublin

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The period between the ages 1–3 years is one of rapid growth and appropriate dietary intake is therefore required to provide the nutrients to support optimum growth and development⁽¹⁾.

The aim of this study was to calculate the nutrient intakes of 40 healthy pre-school children aged 1–3 years and assess whether they met the recommended intakes for energy and key nutrients^(2–5). This was done by identifying individuals meeting the recommended targets^(2–5) to allow for individual feedback to be generated. Parents/guardians provided written consent for their child to take part in the study. Food and beverage intake was recorded by parents/guardians/staff as appropriate, using a 3-day food diary. Questionnaires were also administered to parents/guardians to provide health, lifestyle and attitudinal information. Dietary intake data was analysed using Dietplan 6 (Forestfield Software Ltd, UK)⁽⁶⁾.

(n = 40)	RDA	Mean	SD	% Toddlers (Individual level)	
				Meeting RDA	Not Meeting RDA
Energy and Macronutrients					
Energy (kcal)	1197.5*	1198.0	242.4	43	58
Protein (g)	14.5*	47.3	7.9	100	0
% Energy from Carbohydrate	50*	47.1	6.1	35	65
% Energy from Fat	35*	34.1	5.2	70	30
% Energy from Saturated Fat	11*	15.9	2.8	8	93
Vitamins					
Vitamin A (ug RE)	400†	483.3	171.1	63	38
Vitamin D (ug)	15‡	3.1	3.2	0	100
Thiamin (mg)	0.5†	1.0	0.2	100	0
Vitamin B ₁₂ (ug)	0.7†	6.2	5.7	100	0
Vitamin B ₆ (mg)	0.7†	1.2	0.3	95	5
Riboflavin (mg)	0.8†	1.7	0.4	100	0
Vitamin C (mg)	45†	67.5	34.9	73	28
Minerals					
Calcium (mg)	700‡	860.3	231.6	75	25
Iron (mg)	8†	8.5	3.3	50	50
Sodium (mg)	800	1251.6	337.4	5	95
Zinc (mg)	4†	5.7	1.6	88	13
Iodine (ug)	70†	158.4	57.8	95	5

[^]All sources including dietary supplements. *UK DRV², †Irish RDA³, ‡IOM RDA⁴, UK NHS⁵

Although the majority of parents (84%) reported that their child had a healthy diet, a large proportion of toddlers did not meet their recommended intake for energy or key macro- or micronutrients^(2–5). This study indicates a lack of understanding about healthy eating and the specific nutritional requirements of children aged 1–3 years.

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