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Dietary fibre (DF) intakes in pre-school children aged 1–4 years in Ireland

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Currently, there are limited data available on the dietary habits of pre-school children in Ireland. The National Pre-school Nutrition Survey (NPNS) was therefore carried out to establish a database of habitual food and beverage consumption in a representative sample of pre-school children in the Republic of Ireland. A 4-day weighed food diary was used to collect dietary intake data from 500 pre-school children aged 1–4 years. Analysis of dietary intake data was carried out using WISP[®], which is based on *McCance and Widdowson's The Composition of Foods 6th edition*⁽¹⁾ and the Irish food composition database⁽²⁾. DF intake and sources of DF in the diets of pre-school children are reported.

	All (n = 500)		1 year olds (n = 126)		2 year olds (n = 124)		3 year olds (n = 126)		4 year olds (n = 126)		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Energy (MJ)	4.8	1.1	4.2 ^a	0.9	4.7 ^b	1.2	4.8 ^b	0.9	5.3 ^c	1.0	<0.001
DF (g)	11.5	3.8	10.4 ^a	3.7	11.4 ^b	4.0	11.8 ^{bc}	3.4	12.6 ^c	3.7	<0.001
DF (g/MJ)	2.4	0.7	2.5	0.8	2.5	0.7	2.5	0.7	2.4	0.6	0.753

	All (n = 500)		1 year olds (n = 126)		2 year olds (n = 124)		3 year olds (n = 126)		4 year olds (n = 124)	
	g	%	g	%	g	%	g	%	g	%
Fruit & juices	2.7	22.6	2.4	23.4	2.8	23.6	2.8	22.7	2.7	20.8
<i>Fruit</i>	2.2	18.6	2.0	19.1	2.3	19.4	2.3	18.4	2.3	17.6
<i>Fruit purées & smoothies</i>	0.4	3.5	0.5	4.1	0.5	3.9	0.5	3.5	0.4	2.6
<i>Juices</i>	0.1	0.5	0.0	0.2	0.0	0.3	0.1	0.8	0.1	0.6
Breads	1.8	15.8	1.1	10.4	1.9	16.7	2.1	17.8	2.3	18.2
<i>Brown/wholemeal breads</i>	1.1	8.8	0.6	5.6	1.3	10.3	1.2	9.5	1.3	9.6
<i>White breads</i>	0.6	5.9	0.3	3.9	0.5	5.5	0.7	6.9	0.8	7.3
<i>Other breads</i>	0.1	1.2	0.1	0.9	0.1	0.9	0.2	1.4	0.2	1.4
Breakfast cereals	1.8	15.7	1.7	17.3	1.7	15.3	1.9	15.4	1.9	14.7
<i>Ready-to-eat cereals</i>	1.3	11.5	1.0	10.5	1.2	11.1	1.4	12.1	1.6	12.3
<i>Porridge type cereals</i>	0.4	3.7	0.5	5.4	0.5	3.8	0.4	3.3	0.3	2.3
<i>Infant cereals</i>	0.1	0.5	0.2	1.4	0.1	0.4	0.0	0.0	0.0	0.1
Vegetables & veg. dishes	1.2	10.5	1.2	11.7	1.1	9.5	1.2	9.8	1.4	11.1
<i>Vegetables</i>	1.1	9.6	1.0	10.2	1.0	8.4	1.1	9.2	1.3	10.4
<i>Vegetable dishes</i>	0.1	0.9	0.1	1.5	0.1	1.1	0.1	0.5	0.1	0.7
Potatoes & potato prods.	0.9	8.0	0.7	7.0	0.8	7.9	0.9	8.5	1.0	8.7
Grains/rice/pasta/savouries	0.7	6.1	0.5	5.1	0.7	6.1	0.7	5.8	0.9	7.5
Other foods	2.4	21.2	2.6	25.1	2.4	20.7	2.3	20.0	2.4	19.0
Total	11.5	100	10.4	100	11.4	100	11.8	100	12.6	100

Seventy two percent of pre-school children (68% males, 76% females) met the EFSA DF recommendation⁽³⁾ for children of this age group. The foods which contributed greatest to DF intakes were fruit, breads, ready-to-eat breakfast cereals and vegetables.

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1. Food Standards Agency (2002) *McCance & Widdowson's The Composition of Foods Sixth Edition*. Cambridge: Royal Society of Chemistry.
2. Black LJ, Ireland J, Møller A *et al.* (2011) *J Food Compos Anal* **24**(7): 1017–1023.
3. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA) (2010) *EFSA J* **8**(3): 1462 [77 pp.].