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Dietary patterns influencing dietary fibre intake in Irish teenagers aged 13–17 years

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Irish teenagers aged 13–17 years have previously been shown to have inadequate dietary fibre (DF) intakes⁽¹⁾. The objective of the present research was to identify the dietary patterns influencing DF intake in Irish teenagers. Data from the National Teens' Food Survey (NTFS) was used for this analysis (<http://www.iuna.net>).

Dietary intake data from the NTFS were analysed using WISP[®] (Tinuviel Software, Llanfechell, Anglesey, UK), which is based on the 6th edition of *McCance and Widdowson's The Composition of Foods*⁽²⁾. In the present analysis, the contribution of food groups (g and %) to mean daily DF intakes by a third of DF intake (stratified for age and gender) are reported in the 13–17-year-old teenagers. The mean daily energy intakes were 6.7 MJ (1598 kcal), 8.3 MJ (1994 kcal) and 9.9 MJ (2347 kcal), in low, medium and high DF consumers, respectively. The food groups that account for the greatest proportion of the difference in intakes between high (the top third) and low (the bottom third) consumers of DF are also reported.

	Low (n 146)		Medium (n 148)		High (n 147)		Difference (high–low)	
	g	%	g	%	g	%	g	%
Bread and rolls	2.4	23	3.1	21	4.9	21	2.5	21
Vegetables and vegetable dishes	0.9	9	1.6	11	3.0	14	2.2	18
Breakfast cereals	0.9	8	1.7	11	3.0	13	2.2	18
Fruit and fruit juices	0.5	5	0.8	6	2.5	10	2.0	17
Potatoes and potato products	2.2	22	3.1	21	2.9	14	0.7	6
Grains, rice, pasta and savouries	1.2	12	1.3	9	1.8	9	0.6	5
Other	2.1	20	2.9	21	3.7	18	1.6	14
Total	10.1	100	14.5	100	21.9	100	11.8	100

Bread and rolls (21%) were the main contributors to the difference in DF intake (11.8 g) between high- and low-DF consumers, with vegetables and vegetable dishes (18%), breakfast cereals (18%) and fruit and fruit juices (17%) also being important contributors. The difference in DF intake is attributable to a difference in the frequency of consumption and a greater intake per eating occasion of each of these four food groups. Although potatoes and potato products contribute 14–22% to the mean daily intake of DF, they only explain 6% of the difference in intakes between high and low consumers.

These findings help to identify dietary strategies for increasing DF intake in teenagers that are useful for the development of food-based dietary guidelines.

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1. Bannon S, Walton J, Hannon EM *et al.* (2008) Dietary fibre (DF) and NSP intake in Irish teenagers aged 13–17 years. *Proc Nutr Soc* 67(OCE7), E272.
2. Food Standards Agency (2002) *McCance and Widdowson's The Composition of Foods*, 6th summary ed. Cambridge: Royal Society of Chemistry.