

## Dietary intake of whole grain in Irish adults

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Limited data exists on dietary intakes of whole grain in an Irish population. The objective of the present study was to characterise whole grain consumption in a representative sample of Irish adults, using data from the National Adult Nutrition Survey (NANS). NANS collected detailed information on habitual food and beverage consumption, using a 4 day food diary, in 1500 Irish adults from 2008–2010<sup>(1)</sup>. Whole grain foods were identified and information on the grain ingredients was ascribed from food packaging information and by contacting manufacturers<sup>(2)</sup>. After the exclusion of under reporters, dietary intakes of whole grain were characterised and compliance with dietary recommendations assessed<sup>(3)</sup>.

	Total Population			Consumers only			
	<i>n</i>	Mean	SD	<i>n</i>	%	Mean	SD
<b>Total Population</b>	1051	29.4	37.0	838	79.7	36.9	37.9
<b>Sex</b>							
Male	523	33.3 <sup>a</sup>	44.7	411	78.6	42.4 <sup>a</sup>	46.5
Female	528	25.6 <sup>b</sup>	26.6	427	80.9	31.7 <sup>b</sup>	26.2
<b>Age</b>							
18–35 years	377	32.5 <sup>ns</sup>	45.7	300	79.6	40.9 <sup>ns</sup>	47.8
35–50 years	308	29.0	31.1	254	82.5	35.2	31.0
50–65 years	204	26.6	30.1	164	80.4	33.1	30.2
≥65 years	162	26.7	31.5	120	74.1	36.0	31.7
<b>Social Class</b>							
Professional/managerial	484	31.1 <sup>ns</sup>	34.7	403	83.3	37.3 <sup>ns</sup>	34.9
Non-manual	183	29.1	34.5	145	79.2	36.7	35.0
Skilled manual	142	25.3	29.4	110	77.5	32.6	29.5
Semi-skilled/unskilled	205	29.5	48.1	154	75.1	39.3	52.0
<b>BMI Measured</b>							
% Underweight	6	44.8	55.9	4	66.7	67.2	56.5
% Normal weight	387	28.8	38.2	311	80.4	35.8	39.6
% Overweight	359	35.5 <sup>a</sup>	38.6	305	85.0	41.7	38.6
% Obese	153	25.0 <sup>b</sup>	29.8	121	79.1	31.7	30.3
<b>Waist-to-hip ratio</b>							
Increased risk	417	34.1 <sup>a</sup>	42.5	347	41.4	41.0 <sup>a</sup>	43.5
High risk	439	27.2 <sup>b</sup>	29.7	355	42.4	33.6 <sup>b</sup>	29.6

a,b Different uppercase superscript letters indicate mean differences within each factor using Independent *t*-test or One way ANOVA with Bonferroni correction  $P < 0.05$ .

Mean intakes (g/d) were 29.4 rising to 36.9 for consumers only, with 79.7% of the Irish population consumers of whole grain. Breakfast and the home were the main contributing meal and location for whole grain consumption, with mean intakes of 15.8 and 26.7 g/d respectively. ‘Breads and rolls’ was the major contributor to whole grain intakes (40.9%) followed by ‘ready to eat breakfast cereals’ (33%). Wheat was the major grain type consumed (68%), with oats also contributing considerably (19%). Only 21% of the population achieved the recommended intakes of 48 g/d<sup>3</sup>. This study indicates that although whole grains are widely consumed by Irish adults, actual levels of intake and compliance with dietary recommendations are low.

1. National Adult Nutrition Survey Summary Report (2011) Available at: <http://www.iuna.net> (Accessed at 04/03/2013).
2. Devlin NFC, McNulty BA, Gibney MJ *et al.* (2012) *Br J Nutr* **11**, 1–9.
3. USDA (2010) Dietary Guidelines for Americans. [www.dietaryguidelines.gov](http://www.dietaryguidelines.gov). (Accessed at 04/03/2013).