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Caffeine intake in a representative sample of Irish adults aged 18–64 years

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Caffeine occurs naturally in foods such as tea, coffee and chocolate and is also added to some foods and beverages. In recent years there has been concern regarding the possible adverse health effects of high caffeine intakes⁽¹⁾. According to the European Food Safety Authority (EFSA) single doses of caffeine up to 200 mg and habitual caffeine consumption of up to 400 mg/d do not give rise to safety concerns for non-pregnant adults⁽¹⁾. The objective of this analysis was to estimate caffeine intake in the Irish adult population, based on nationally representative data collected in the National Adult Nutrition Survey (NANS) (2008–2010) (www.iuna.net)⁽²⁾. A 4 day semi-weighed food record was used to collect food and beverage intake data. Caffeine containing foods such as tea, coffee, chocolate and carbonated beverages were assigned a caffeine value using data provided by EFSA⁽³⁾. Brand level data were used to assign caffeine values to additional beverages e.g. energy drinks. For these analyses, caffeine in nutritional supplements has not been accounted for. Almost all (97 %) of NANS participants aged 18–64 years consumed food/beverages containing caffeine during the recording period. The mean daily intake (MDI) of caffeine in the total population (n = 1274) was 102 mg/d. Among consumers, the MDI of caffeine was 104 mg/d (108 mg/d men; 101 mg/d women) and intakes were highest in adults aged 36–50 years (127 mg/d). The P₉₅ intake of caffeine did not approach 400 mg/d for any group.

Mean daily intake of caffeine and intake of caffeine per consumption occasion in Irish adult caffeine consumers aged 18–64 years

Group	No of subjects	Mean daily intake (mg/d)		No of occasions	Intake per occasion (mg)	
		Mean	P ₉₅		Mean	P ₉₅
All	1242	104	280	13347	39	108
Male	610	108	297	6291	42	117
Female	632	101	258	7056	36	104
18–35y	510	79	242	4368	37	108
36–50y	429	127	332	5211	42	113
51–64y	303	115	287	3768	37	104

There were over 13,000 caffeine consumption occasions during the course of the survey and the mean caffeine intake per occasion was 39 mg. The P₉₅ intake of caffeine per consumption occasion did not approach 200 mg for any group. Among caffeine consumers, coffee (53.5 mg) and teas (41.6 mg) were the main contributors to caffeine intake, with carbonated beverages (5.3 mg), chocolate (2.0 mg) and energy drinks (1.9 mg) contributing lower amounts. These analyses indicate that, even among high consumers, levels of habitual caffeine consumption and intakes of caffeine as a single dose in Irish adults do not give rise to safety concerns.

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1. European Food Safety Authority (EFSA) (2015) Scientific Opinion on the safety of caffeine.
2. Walton J (ED) 2011 National Adult Nutrition Survey- Summary Report Available online at <http://www.iuna.net>.
3. European Food Safety Authority (EFSA) (2014) Gathering consumption data on specific consumer groups of energy drinks.

