

Appendix 1 - Statement on the effects of lead on maternal health

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Lead exposure from food in women of childbearing age

Table 1. Estimated exposure (in µg/kg bw/day) to lead from foods consumed by women of childbearing age (16-49 years) using data from the total diet study food groups (Bates *et al.*, 2014, 2016; Roberts *et al.*, 2018).

Food Groups	Mean Exposure to lead LB to UB (µg/kg bw/day)*	97.5th Percentile Exposure to lead LB to UB (µg/kg bw/day) *
Bread	0.0061	0.015

Miscellaneous Cereals	0.0080	0.023
Carcase meat	0-0.0014	0-0.0065
Offal	0.00057	0.011
Meat products	0.0022	0.010
Poultry	0.0015	0.0055
Fish and seafood	0.0015	0.0071
Fats and oils	0-0.00034	0-0.0010
Eggs	0-0.00052	0-0.0025
Sugars and confectionaries	0.0020	0.0081
Green vegetables	0.0088	0.034
Potatoes	0-0.0045	0-0.013
Other vegetables	0.0063	0.019
Canned vegetables	0.0027	0.013
Fresh fruit	0-0.0047	0- 0.018
Fruit products	0.0041	0.024

Non-alcoholic beverages	0-0.039	0-0.091
Milk	0-0.0037	0-0.014
Dairy products	0.0023	0.0087
Nuts and seeds	0-0.00013	0-0.0011
Alcoholic drinks	0.0053	0.037
Meat substitutes	0.00020	0.0027
Snacks	0.00055	0.0025
Desserts	0.00062	0.0039
Condiments	0.0045	0.016
Tap water	0-0.0048	0-0.021
Bottled water	0-0.0013	0-0.0093
Total	0.057-0.12	0.12-0.23

*Values have been rounded to two significant figures. LB=lower bound; UB=upper bound. "Total" is sum of the values for individual items.

Lead exposures from water in women of childbearing age

Table 2. Concentration of lead in tap water sampled in the nations of the United Kingdom in 2019 (µg/l).

Region	N	LB mean	LB SD	UB mean	UB SD
England and Wales*	10967	0.38	0.38	2.15	1.9
Scotland	436	0.34	1.2	0.48	1.2
Northern Ireland	122	0.24	0.79	1.1	0.75

*99th percentile concentration.

LB = lower bound: values below the limit of detection assumed to be zero.

UB = upper bound: values below the limit of detection assumed to be the same as the limit of detection.

References

Bates, B.; Lennox, A.; Prentice, A.; Bates, C.; Page, P.; Nicholson, S.; Swan, G. (2014) National Diet and Nutrition Survey Results from Years 1, 2, 3 and 4 (combined) of the Rolling Programme (2008/2009 – 2011/2012) Available at: [Main heading \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/264812/nutrition_survey_years_1_2_3_and_4_2008_2009_to_2011_2012.pdf)

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