Cadmium in the Maternal Diet - Exposure assessment

In this guide

In this guide

45. The National Diet and Nutrition Survey Rolling Programme (NDNS) and Total Diet Study does not include pregnant or lactating women, therefore the data for women of childbearing age (Bates et al. 2014, 2016; Roberts et al., 2018) were used as a surrogate to estimate cadmium exposure from food. Childbearing age was taken to be 16-49 years of age. Caution must be taken when using these data as they may not be entirely representative of the maternal diet.

46. The mean cadmium exposure from the total diet of women of childbearing age ranged between 0.12 – 0.21 µg/kg bw/day and the 97.5th percentile of 0.21-0.37 µg/kg bw/day. Combining the data obtained for England and Wales for drinking water with the TDS data, the exposure assessment of the TDS on the highest 97.5th percentile for water, had a minimal effect on total exposure derived from all foods in the TDS.

47. The food groups providing the highest cadmium exposures were miscellaneous cereals, potatoes, and bread. As stated above, high intakes of rice can occur, especially in certain groups, but there are no separate concentration data for cadmium in rice in the TDS. Although the TDS data can be used for exposure in specific sub populations (e.g. vegetarian or ethnic origin), the data sets are small and therefore not sufficiently robust to provide separate, statistically reliable exposure estimates in these sub-populations. (Appendix B). It should be noted that pregnant women are advised to eat a variety of different foods to ensure the correct amount of nutrients are being consumed. This includes bread, potatoes, breakfast cereals and rice (NHS, 2020). Therefore, pregnant women may have a different diet in comparison to non-pregnant females considered in the TDS.