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## Dietary mineral intakes for Ukrainian subjects living areas contaminated by the Chernobyl accident

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## Abstract:

Daily intakes of twelve elements in Ukrainian subjects were estimated in relation to the health effects on habitants after the Chernobyl accident. Total diets were collected from one hundred twenty-three locations for children and adult males by a duplicate portion method. Elements were determined by inductively coupled plasma atomic emission spectrometry (ICP-AES) or inductively coupled plasma mass spectrometry (ICP-MS). Geometric mean and median (in parentheses) of daily intake in Ukrainians are as follows: Co 10.3 (9.83)  $\mu$ g; Cu 0.688 (0.701) mg; Zn 5.73 (5.44) mg; Mn 2.26 (2.28) mg; Fe 8.15 (7.25) mg; Rb 2.74 (2.58) mg; Mg 0.210 (0.219) g; Ca 0.584 (0.606) g; P 0.839 (0.815) g; K 2.80 (2.75) g; and Na 3.76 (3.57) g. The intakes of Cu, Mn, and Zn in Ukrainians were lower than those of Japanese and worldwide reported values.

Key words: mineral, dietary intake, Ukrainian, Chernobyl accident, health effects





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