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ABSTRACT BOOK

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FOOD INTAKE OF ZINC AND CADMIUM IN NORTHERN ITALY POPULATION

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Backgrounds:
Some trace elements are essential for humans; their deficiency may cause abnormal biological functions, whereas excessive intakes may produce adverse health effects. The aim of this study was to estimate the daily intake through diet of zinc (Zn) and cadmium (Cd) in a Northern Italy population and verify the compliance with recommended levels of intake for Italian population recently updated by Italian Society of Human Nutrition (SINU).
Methods:
We investigated dietary intake of Zn, and Cd in 719 residents of five provinces of Emilia Romagna region in Northern Italy, using a validated semi-quantitative food frequency questionnaire designed to capture eating behaviors in Italy, specifically developed as part of the European Prospective Investigation into Cancer and Nutrition study, for the Northern Italy population.
Results: We analyzed the diet of 319 men and 400 women, mean (±SD) aged 59.0 (± 14.0) and 52.3 (±14.1) respectively. The daily average (±SD) intake of Zn and Cd was 11.99 (±4.31) mg/day and 15.06 (±8.41) μg/day in men and 10.83 (±4.06) mg/day and 13.23 (±7.23) μg/day in women. Dietary intake levels of Zn were above the recommended values and well below the upper safe levels set by SINU for healthy adults. Cd intake did not exceed the safety limits established by European Food Safety Authority (EFSA).
Conclusions: Our analysis suggested that dietary intake of the above-mentioned essential and toxic trace elements characterizing this Northern Italy population is within the range defined as safe by SINU and EFSA.