

**Major Food Sources for Zinc and Phytate and Molar Ratio of Phytate:Zinc in South Koreans**

In-Sook Kwun\* and Chong-Suk Kwon. Dept. of Food and Nutrition, Andong National University

Major food sources for zinc and phytate and molar ratios of phytate:Zn and phytate  $\times$  Ca:Zn were evaluated for zinc nutriture in South Koreans. Intake of zinc, calcium and phytate were estimated for the calculation of molar ratios of phytate:Zn and phytate  $\times$  Ca:Zn. Food consumption data from '95 National Nutrition Survey ('95NNS) in South Korea were used. Two day food records were used for calculation of nutrient intake. Two thousands households from civilian, non-institutionalized population participated in the '95NNS in South Korea. Sampling of the subjects was representative of the national population. Daily intake of Zn and Ca per capita were 10.1 mg/day and 426.5 mg/day in nationwide, respectively. The estimated daily phytate intake per capita was 1676.6 mg/day. The molar ratio of phytate:Zn, the millimolar ratio of phytate  $\times$  Ca:Zn and the phytate  $\times$  Ca:Zn mmol per 4.2 MJ (1000 kcal) were 15.9, 168.9 and 91.8 in nationwide, respectively. The major food groups for zinc intake were the meat, poultry and their products (43%) and cereals and grain products (18%). Sixty two percentages of zinc was from animal food sources. Cereal and grain products supplied most of the phytate intake (46%) followed by fruits (13%) and legumes and their products (11%), etc. The major food sources for phytate were rice (39%) and soybean products (16%). The results of the present study concern about the relatively high suboptimal zinc nutriture in Koreans, based on the low zinc intake and high phytate intake in South Korea, comparing to the Western diet.