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Dietary mineral intakes of Chinese lactating women: Insufficient intake of calcium and potassium while excessive intake of sodium and phosphorus

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Objective: The benefits of minerals are well-recognized by the general public. However, turning this high awareness into action has been proven to be difficult. Objectives of this study were 1) to investigate the mineral intake by Chinese lactating mothers, and 2) to explore the diet sources of minerals.

Methods: A total of 459 lactating mothers in 5-180 days postpartum participated in this study. Food intakes by participants were measured using one cycle of 24-hour dietary recall and nutrients from food were calculated based on the Chinese Food Composition Table 2004.

Results: Chinese lactating women exhibited inappropriate food intake patterns during lactation. There were 84.9% of women daily intake milk was less than 300g/d, while 76.1% of women had salt intake over 6g/d. For mineral intake, the dietary iron met the adequate intake requirement, with 25.8% of iron from animal-based food. However, insufficient intakes of dietary minerals were found for calcium and potassium, and excessive intakes for sodium and phosphorus. The calcium-to-phosphorus ratio was 0.5/1 and the sodium-to-potassium ratio was 3.0/1. Considering the food sources of nutrients, 60% of calcium was plant-based and only 7.3% from nutrient supplement. The majority of dietary phosphorus was in its inorganic form, with the phosphorus-to-protein ratio as 0.014/1.

Conclusion: Chinese lactating women had an inappropriate food intake during lactation. Regarding mineral intakes, insufficient intake of calcium and potassium and excessive intake of sodium and phosphorus were the most serious nutrition problems in China.

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