

研究業績 英文表記

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Title	Quantities of phospholipid molecular classes in Japanese meals and prediction of their sources by multiple regression analysis
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Abstract	Dietary intake of total phospholipids (PLs) accounts for approximately 10% of total dietary lipids. Each PL molecular class has various beneficial effects on health. However, limited information is available regarding the intake of phosphatidylcholine (PC), phosphatidylethanolamine (PE), phosphatidylinositol (PI), phosphatidylserine (PS), lysophosphatidylcholine (LPC) and sphingomyelin (SM) among Japanese people, and the relevant food sources. In this study, we quantified the contents of PC, PE, PI, PS, LPC, and SM in 120 meal samples served in a Japanese company's dormitory and cafeteria. Additionally, we measured the weight of each food group and estimated the contents of nutrients in these meals. Furthermore, we conducted a stepwise multiple regression analysis to identify predictors (food groups) of each PL class intake. The contents of total PL, PC, PE, PI+PS, LPC, and SM (mean value) were 4.44, 2.17, 0.632, 0.123, 0.313, and 0.127 g/d, respectively. These values were considered as daily PL intake in accordance with data (three macronutrients, vitamins, and minerals) from our study and the National Health and Nutrition Survey (NHNS) Japan, 2015. The content of eggs, meat, fish and shellfish, milk, pulses, fruits, mushrooms, cereals, and fats and oils in the meals predicted the PL and PC contents. The content of eggs, pulses, and mushrooms in the meals predicted the PE contents. Our results determined the daily intake of PL molecular classes among Japanese people and the food sources of PC and PE, and suggested that multiple regression analysis is useful for the prediction of food sources of bioactive components.
keyword	phospholipid molecular classes, daily intake, food survey, multiple regression analysis, Japanese people

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