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Suggestion of Vitamin B6 Upper Level and Permissible Intake Level for Management of Functional Foods

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The soluble vitamin B6 is essential to maintain neuron and immune system in human bodies and overdosage of vitamin B6 may cause neuronal damage, sensory and motor effects. This study was conducted to suggest the tolerable upper level of vitamin B6 through reviewing toxicological data and comparing the approaching methodology selected from USA, EC and England. Also, permissible vitamin B6 intake range of functional food was suggested by calculating daily exposure level through foods and drugs intake and by comparing between tolerable upper level and the calculated daily exposure level. To estimate the total vitamin B6 exposure through foods, RDA of vitamin B6 was considered and the estimated range was between 1.4mg/day and 2.8mg/day. The total vitamin B6 exposure by both foods and drugs was calculated as a person takes one vitamin tablet per a day and the range was from 2.4mg/day to 52.8mg/day. Considering all food and drug intakes, the functional foods may include vitamin B6 in a range between 47.2mg/day and 97.6mg/day (0.79mg/kg/day~1.62mg/kg/day, applying average adult body weight 60kg). These suggested vitamin B6 levels in functional foods may help most individuals to regulate and control vitamin B6 intake from functional foods.

Keyword: vitamin B6, functional foods, permissible intake level