

Journal

Jpn. J. Nutr. Diet., 67(5) 284~290 (2009)

Title

Sex Difference of Blood Levels of Water-soluble Vitamins of Japanese College Students Taking Self-selected Food

Author

Tomiho Fukui¹⁾, Junko Hirose¹⁾, Tsutomu Fukuwatari¹⁾, Naoko Kimura¹⁾, Satoshi Sasaki²⁾, Katsumi Shibata¹⁾

Affiliation

- 1) Department of Food Science and Nutrition, School of Human Cultures, The University of Shiga Prefecture
- 2) School of Public Health, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo

Abstract

The blood levels of water soluble-vitamins were examined to identify a possible difference between male (n=23) and female (n=32) Japanese college students with free intake of food. The following values (mean \pm SD) were obtained. Whole blood vitamin B₁: male, 100 \pm 27 pmol/mL; female, 102 \pm 23 pmol/mL. Whole blood vitamin B₂: male, 137 \pm 45 pmol/mL; female, 137 \pm 39 pmol/mL. Whole blood NAD: male, 30 \pm 5 nmol/mL; female, 32 \pm 5 nmol/mL. Serum vitamin C: male, 42 \pm 16 nmol/mL; female, 52 \pm 14 nmol/mL. Serum folates: male, 15.0 \pm 5.8 pmol/mL; female, 17.7 \pm 5.9 pmol/mL. Serum vitamin B₁₂: male, 0.31 \pm 0.08 pmol/mL; female, 0.38 \pm 0.11 pmol/mL. Serum biotin: male, 9.4 \pm 1.8 pmol/mL; female, 7.4 \pm 1.9 pmol/mL. The only significant difference between sexes was thus found for the vitamin B₁₂ and vitamin C contents.

Key words

water-soluble vitamins, blood, serum, human, Japanese