

## Vitamins & Minerals | Volume 6, Issue 4

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### Editor's Note

Vitamins and minerals are micronutrients that are required by human body in small quantities but play an important role in normal functioning of human physiology. These micronutrients are mainly supplied by daily diet. However due to lack of dietary diversity and poor diet consumption the recommended intake levels may not be achieved. Consequently, the prevalence of vitamin and mineral deficiency have become public health concern in many countries. Micronutrient supplementation is an important strategy to help meet daily recommended allowance. Vitamins and Minerals journal encompasses these contemporary issues publishing most recent updates. The current issue deals with vitamin C analogues, folic acid fortification effects, iodine fortification and clinical micronutrient deficiency. Vitamin C, a ubiquitous nutrient, cannot be synthesized by human body and therefore must be obtained externally. Human immune system performance is at maximum when vitamin C level is normal in plasma. Based on non-randomized open study with 6 subjects having below normal vitamin C level, Raghavan [1] have demonstrated that Metadichol® by virtue of its ability to bind with vitamin D receptor, functions as a surrogate for vitamin C when administered orally at a dose of 5 mg per day over a period of 90 days normalizing thyroid stimulating hormone (TSH), blood pressure (BP), fasting glucose, triglycerides, bone mass, sodium level and insulin level. Folic acid deficiency in early pregnancy lead to improper closure of embryonic neural tube leading to anencephaly and spinal bifida. About 400 micrograms of folic acid per day supplementation in women capable of becoming pregnant, is required to prevent such neural tube defects (NTD). Mitsuguchi et al. [2] have shown that administering fermented milk fortified with 200 micrograms of folic acid for four weeks elevated the serum folate levels by 1.5 in Japanese female university students upto cutoff value for prevention of NTDs regardless of methylenetetrahydrofolate reductase (MTHFR) C677T genetic polymorphism. Iodine is a component in thyroid hormones.

Adequate levels of iodine with intake of 200 to 250 micrograms per day in pregnant and lactating women is required for neural development and function. In year 2009, World Health organization has declared Australia as mild to moderately iodine deficient country. In this context, Wegrecki et al. [3], have studied the prevalence of iodine deficiency among pregnant women in Australia and observed that pregnant women are at high risk of mild iodine deficiency before fortification. Even after mandatory fortification, the level still remained below the recommended level. Therefore, public health education in addition to supplementation programs were deemed necessary for iodine adequacy in all pregnant women. Patients following esophagectomy are subject to mal-absorption and micronutrient deficiencies. Boshier et al. [4] have studied the prevalence of specific micronutrients in 44 patients after a median of 26 months following esophagectom. The deficiency in one or more micronutrients was as high as 64% and specifically vitamin D, vitamin B12, ferritin, and zinc were less by 21, 32, 16 and 25%, respectively. Therefore, regular screening and prophylactic supplementation has been proposed.

### References

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