

Plasma homocysteine concentrations of Indonesian children with inadequate and adequate vitamin B-6 status

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Abstract

The objective of the study was to determine the usefulness of utilizing plasma homocysteine concentrations as an indicator of vitamin B-6 status in subjects with inadequate and adequate status as demonstrated by currently accepted indicators. Plasma homocysteine concentrations of 77 third-grade Indonesian children (aged 8–9 y; boys and girls) were measured. About a quarter of these subjects had inadequate vitamin B-6 status as indicated by their plasma pyridoxal-5'-phosphate concentrations, erythrocyte alanine aminotransferase activity coefficients, and reported dietary vitamin B-6 intakes. No significant differences in plasma homocysteine concentrations were observed between subject groups shown to have inadequate and adequate vitamin B-6 status using currently accepted indicators. Plasma homocysteine concentrations of the subjects were not correlated with values for other vitamin B-6 indices. Plasma homocysteine concentration was not an indicator of vitamin B-6 status in these children, as it did not differentiate between children shown otherwise to have inadequate and adequate status of the vitamin.

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