

index of zinc status in women fed a low-zinc diet.

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Abstract:

The effect of a low-zinc diet on saliva and plasma levels was studied in 12 healthy young women. A diet low in zinc (3.2 mg/day) was fed to the subjects for 22 days. Subjects were determined to be in satisfactory zinc status via analysis of the zinc levels of their diet, hair, plasma, and saliva. During the low-zinc diet, concentrations of zinc in whole mixed saliva remained relatively stable for each individual and related significantly to the percentage sediment in the saliva. However, mixed saliva zinc did not respond to dietary depletion. Plasma zinc levels declined, but not significantly. Zinc levels of salivary sediment, which consisted primarily of epithelial cells, significantly (p less than 0.05) decreased from initial values of 126 ± 28 microgram/g to final levels of 94 ± 14 microgram/g after the low-zinc diet. These results suggest that mixed saliva zinc is not a useful index of zinc status; however, salivary sediment zinc may be a sensitive parameter if contamination can be avoided.