

PLASMA ZINC AND SERUM ALBUMIN CONCENTRATIONS OF COMMUNITY
AND INSTITUTIONALISED ELDERLY

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Recent evidence suggests that due to a Western Diet, certain groups may be at risk from suboptimal zinc nutrition, Sandstead, (1973). Most zinc is transported in plasma bound to albumin. Serum albumin concentration itself may change with protein nutritional status. Zinc and protein status and their interrelationship was assessed in a group of community and of institutionalised elderly persons. The community sample was obtained by a two stage cluster technique Flint et al (1978), Flint et al (1979) and the institutionalised were randomly selected from subjects who had been institutionalised for three or more months. Blood was obtained after an overnight fast. The plasma zinc concentration of the community elderly (n=28) was $0.90 \pm 0.02 \mu\text{g/ml}$ and for the institutionalised (n=95) $0.74 \pm 0.01 \mu\text{g/ml}$ ($p < 0.001$). Serum albumin (n=28) concentrations were $42.0 \pm 1.5 \text{ g/l}$ in the community, and in the institutionalised (n=95) $34.4 \pm 0.5 \text{ g/l}$ ($p < 0.001$). There was a correlation between institutionalised albumin and zinc concentrations ($r=0.47$, $n=95$, $p < 0.001$). Thus the zinc and protein status of institutionalised elderly persons is lower than their community counterparts and are apparently related. Food intake by the institutionalised may be responsible for the poor status of these two nutrients.

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