

DAILY COPPER, ZINC AND IRON INTAKE OF ELDERLY PATIENTS IN A NURSING HOME

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Concern about the nutritional well being of the elderly, especially those being cared for in nursing homes has been shown by various investigators. (Bunker et al. 1982; Bunker et al. 1984; Sempos et al. 1982; and Stiedemann 1978). The decreased energy requirements with increasing age result in an overall decline in food consumption, but trace elements must still be obtained from the diet at a level to prevent deficiency.

Dietary data from a typical nursing home in the Brisbane metropolitan region was collected over a period of three days, chosen at random from a three week rotating menu. Individual food intake was recorded for forty-seven female patients at ages ranging from fifty to eighty years. Food samples were collected and digested in a perchloric/nitric acid mixture and analysed in duplicate for copper, zinc and iron on a Varian AA6 flame atomic absorption spectrophotometer. Average daily intake was calculated on the basis of these analytical results.

The diet as served provided approximately 8400 kJ of energy, which fell within the Recommended Dietary Allowance (R.D.A.) range of 5880 kJ to 9240 kJ for females between the age of fifty-one and seventy-five.

Daily intake of Copper, Zinc and Iron

Element	Average Calculated Intakes mg/day	R.D.A. mg/day
Cu	1	2-3
Zn	8	12-16
Fe	12	10-12

For the three elements tested only iron was present in amounts which met the R.D.A. values. The nutrient densities of the meals eaten, for the three elements, were also lower than the values calculated from the R.D.A.

Patients were, however, eating less than the menu as served, thus this may indicate an inadequate intake of these and possibly other trace metals. Points considered when making such an assumption include extra foods eaten by the patients; supplements given; and the ratio in which these supplements were taken.

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