

## DIETARY SELENIUM INTAKES OF YOUNG BRISBANE CHILDREN

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Little information exists on the dietary intake or requirement for selenium of Australian adults and children (Dreosti 1986). At present selenium does not appear in the Australian food tables although recommended dietary allowances have now been published. This study was therefore undertaken to provide information on the dietary selenium intake of preschool aged children in Brisbane and to compare this with the recommended intakes.

Survey forms were sent to children attending preschools in the Brisbane metropolitan area. These consisted of a food frequency questionnaire and a 24 hour dietary record, the latter being used for calculating selenium intakes. Foods commonly eaten by this age group were analysed for selenium using several techniques, hydride generation, zeeman graphite absorption spectrophotometry or a spectrofluorometric technique depending on the concentration of selenium in the food.

The selenium levels in total diets, meals and snacks and individual food groups are summarised in the following table.

Food Intake (n=97)	Mean $\pm$ S.D. ( $\mu\text{g Se/day}$ )	Range ( $\mu\text{g Se/day}$ )	% Total
Total	55.9 $\pm$ 18.2	21.0-114.0	100.0
Meals	45.5 $\pm$ 15.3	17.9-96.3	81.2
Snacks	10.5 $\pm$ 10.4	0-63.3	18.8
Dairy products	19.9 $\pm$ 12.1	2.4-67.3	35.8
Meat/fish/poultry	17.3 $\pm$ 11.2	0-50.7	31.2
Cereals	14.0 $\pm$ 6.1	2.9-32.4	25.2
Eggs	2.5 $\pm$ 5.8	0-26.0	4.5
Vegetables	0.9 $\pm$ 1.0	0-2.7	1.6
Fruit	0.6 $\pm$ 0.7	0-4.9	1.1
Condiments, soups flavourings	0.2 $\pm$ 0.3	0-3.6	0.4
Nuts and seeds	0.1 $\pm$ 0.2	0-7.8	0.2
Sugars, jams, honeys	0.01 $\pm$ 0.02	0-0.2	0.0
Fats/confectionery/ snack foods/beverages	0	0	0.0

Ninety-six percent of the children had selenium intakes above the recommended intake of 30  $\mu\text{g/day}$  for this age group and the intake of the remainder was more than 70% of the recommended intake. None of the children in the group had a selenium intake at toxic levels i.e. greater than 120  $\mu\text{g Se/day}$ .

I.E. DREOSTI (1986) J. Food and Nutr. 43: 60.

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