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A Secondary Analysis of the Diet and Nutrition Survey of Infants and Young Children (2011) to identify factors influencing sodium intake in infants aged 12–18 months

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High sodium intake is one of the main contributors to worldwide hypertension incidence, increasing the risk of cardiovascular events such as stroke (ischaemic and haemorrhagic), myocardial infarction, heart failure, chronic kidney disease, peripheral vascular disease and premature death⁽¹⁾. A new study in adults has shown that it can also reduce endothelium function⁽²⁾. Little has been published but infancy is acknowledged to be a very sensitive time with regards to the effect of dietary sodium intake⁽³⁾. Changing sodium intake habits would lead to long term savings on social and healthcare expenditure as well as saving lives. Previous studies on younger infants have shown that inappropriate complementary feeding has led to excessive sodium intake in infants⁽⁴⁾. The DNSIYC (2011) has found that 12 to 18 month olds were consuming 181 % RNI of sodium. The primary aim of this paper is to investigate factors which contribute to sodium intake in infants aged 1–1^{1/2} years.

Secondary analysis was performed on the Diet and Nutrition Survey of Infants and Young Children (2011) database using the IBM software package SPSS. Data from 1275 infants aged 1 to 1^{1/2} years was analysed using inferential and descriptive statistics. The variables were measured by quartile of sodium intake. Analysis of variance was carried out and significance levels were set at $p < 0.05$.

Quartiles of sodium density (mg/1000Kj)					
	Lowest Q1 Mean SD	Quartile 2 Mean SD	Quartile 3 Mean SD	Highest Q4 Mean SD	P Value
Sodium (mg)	555±178	809±164	1053±209	1289±337	<0.001
Bread (g)	15±14	25±14	32±19	38±24	<0.001
Cheese (g)	5±10	8±9	10±10	7±10	<0.001
Milk (g)	209±227	280±231	373±240	297±211	<0.001
Processed meat (g)	2±6	8±11	14±17	25±25	<0.001
Savoury Sauces (g)	3±8	6±13	7±13	7±11	<0.001

There were statistically significant differences between the low and high group in all of the above categories. These results show that infants in this age group are greatly exceeding their daily sodium requirements. Adding to previous publications⁽⁴⁾ it is clear that unsuitable food choices are being made as the child's diet progresses to eating typical family foods. Parents need more advice about the complementary feeding process, suitable foods and portion sizes for this age group. A campaign focusing on salt targets for young children is required to raise awareness and encourage the formation of healthy sodium habits.

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