



FACT SHEET

SODIUM

* Sodium occurs naturally in a wide variety of foods. It is mostly consumed as sodium chloride (common salt) but also as other sodium containing compounds added to foods eg monosodium glutamate (MSG), sodium propionate and benzoates (preservatives), sodium bicarbonate (baking powder). About 75% of the sodium in our diet comes from processed food (eg bread, biscuits, butter/margarine, cheese, snack foods, smallgoods), 15% from the addition of salt in cooking and at the table, and the remaining 10% from natural sources.

* Sodium is the major electrolyte in the extracellular fluid. In a 70kg man about 84% is in the extracellular fluid, 8% is in the cells and the rest in the bones. The kidney controls the amount of sodium in the body.

* Sodium has important functions in the body as it:-

- Maintains fluid balance and as a result helps to maintain blood pressure.
- Is important for nerve and muscle function
- Helps keep the pH of the blood within the normal limits of pH 7.35-7.45.
- Is involved in carbohydrate metabolism. The transport of glucose across the intestinal mucosa requires the movement of sodium in the same direction.
- Is involved with hormones regulating blood pressure.

* Excess sodium causes fluid retention and weight gain which strains the heart making it pump harder. High sodium/salt diets are linked to high blood pressure, heart attacks and stroke. The tendency to develop high blood pressure is largely under genetic control, with one of the major triggers being a high sodium/salt diet in susceptible individuals. High sodium/salt diets are also associated with osteoporosis as they increase excretion of calcium.

* The Recommended Dietary Intake (RDI) of sodium for *adults* is 920- 2300mg (40-100mmol) and we are currently consuming about double this amount. *Infants* need much less. The RDI for *infants 0-6 months* is 140-280mg (6-12mmol) and *infants 7-12 months* 320 -580mg (14-25mmol).

* Breast milk contains approximately 138mg sodium (6mmol)/Litre. Infant formula regulations stipulate the range of sodium permitted. Formulas from birth have a sodium content similar to breast milk while Follow On Formulas are slightly higher. The sodium content of Heinz Nurture Gold and Starter formulas is 180mg(7.8mmol) /Litre while Heinz Nurture Gold Follow-on and Follow-on Formula is 210mg(9.1mmol)/Litre.

* Whole cow's milk has about three times the sodium of breast milk and is one reason why it is unsuitable as the main milk drink for infants below 12 months.

* Infants receive enough sodium from breast milk and infant formula without the addition of salt. With the introduction of solids, particularly home prepared and adult processed foods, the intake of sodium can rise considerably. The increase tends to be lower for those fed commercial infant foods. Under the Food Standards Code, infant foods in cans or jars and ready to eat cereals, flour, pasta must not contain more than 100mg sodium/100g; rusks no more than 350mg/100g; biscuits no more than 300mg/100g and ready to eat fruit based foods including juices no more than 100mg/100g. Pure fruits, gels, and juices must not contain added salt. (*Standard 2.9.2*) There are no such constraints on the sodium content of home prepared or adult foods given to infants. Adult wheat biscuit cereals have about 30 times more sodium than Heinz infant cereals.

* Salt should not be added to the infant's diet, and family foods should be low salt or no added salt varieties. Adult foods such as breakfast cereals, processed meats, biscuits, sauces and snack foods can contribute too much sodium to an infant's diet. Infants have a limited ability to excrete excessive sodium which can result in hypernatremia. The liking for salt is a learned taste which is best discouraged. Draft revised Dietary Guidelines for Children and Adolescents from the



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NH&MRC recommend "*Care should be taken to choose foods low in salt*". This guideline is consistent with the Draft revised Australian Dietary Guidelines for adults.

Note : 23 mg of sodium = 1 mmol

References.

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