Heart Foundation

Salt & Heart-healthy eating

Updated 2018

Position statement

This position statement provides recommendations on salt intake to maintain cardiovascular health (CVH) and reduce cardiovascular disease (CVD) risk. This document is supplementary to the Heart Foundation's eating for heart health position statement.

Healthy eating for your heart includes:

1. Plenty of vegetables, fruits and wholegrains.
2. A variety of healthy protein sources including fish and seafood, lean meat and poultry, legumes, nuts and seeds.
3. Reduced fat dairy such as unflavoured milk and yoghurt, and cheese.
4. Healthy fat choices with nuts, seeds, avocados, olives and their oils for cooking.
5. Herbs and spices to flavour foods, instead of adding salt.

*Water as the drink of choice

This style of eating is naturally low in salt and eating this way will improve the heart health of all Australians by reducing CVD risk factors, including high blood pressure. Salt, or sodium chloride, is the chemical compound that has been utilised in food preparation for thousands of years. Sodium is needed to maintain fluid balance, nerve impulses and muscle function and is regulated by the kidneys.[1] Global and Australian intakes of sodium are well above physiological need[2] and scientific evidence shows a direct association between high sodium intakes and hypertension.[3]

Evidence

The Australian nutrient reference value (NRV) for sodium was reviewed in 2017 and replaced the previous value developed in 2006. Sodium was identified as a priority for review given the relationship between sodium intake and blood pressure. The evidence review undertaken ued a methodological framework and was authored by the Australian Department of Health. The NRVs are a joint initiative of the Australian National Health and Medical Research Council (NHMRC), Australian Government Department of Health and Ageing and the New Zealand Ministry of Health.[1] This update abolished the upper limit of 2,400 mg of sodium (6 grams of salt) and revised the suggested dietary target (SDT) for sodium, with the NHMRC concluding that in the Australian food system the previous target of 1,600 mg sodium (4 grams salt) was difficult to attain. The new target was set at 2,000 mg of sodium per day, which equates to 5 grams of salt and aligns with WHO recommendations.

Background

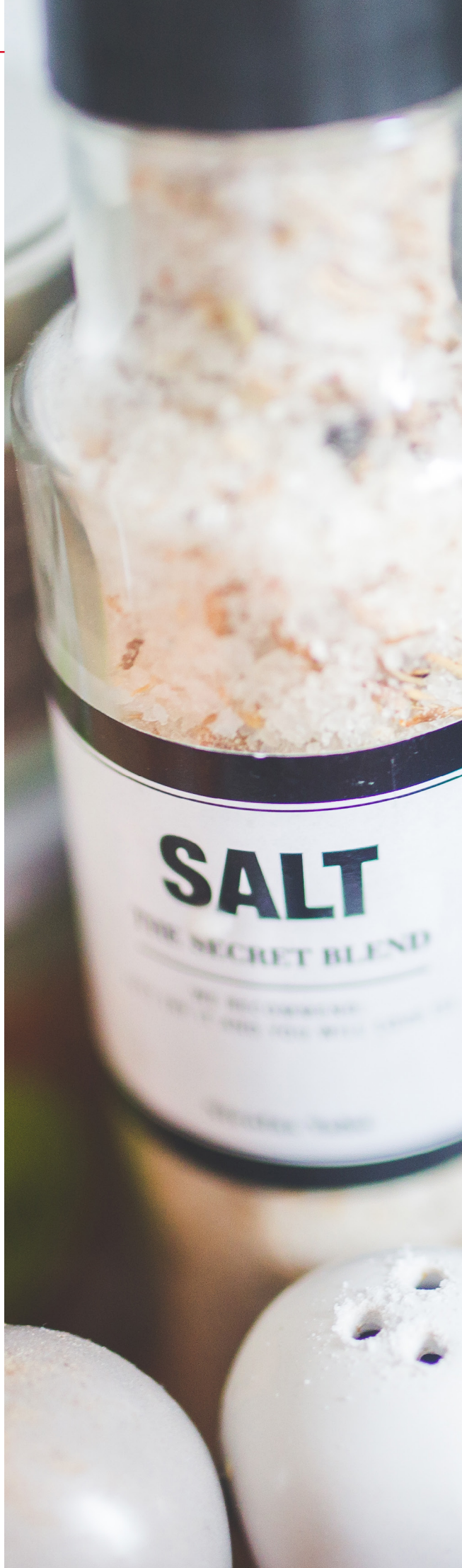
The majority of Australians are consuming more salt than ever before,[4] with habitual intakes higher than the Australian recommended suggested dietary target (SDT) and the World Health Organisation's recommendation of 5 g/day.[1,5] Based on 24-hour urine samples, the preferred method for determining population salt intake, it is estimated that Australian adults are consuming on average 9.0 grams of salt per day, which was higher in males (10.3 g/day) than females (7.8 g/day).[4]

Sodium is found in almost every food we eat, even unprocessed foods, but the amount varies. Foods such as vegetables and fruit have naturally occurring sodium present in very small quantities. Approximately 75-80% of the salt we consume, mainly as sodium chloride, is added to foods during processing[6-8] as a flavouring, a preservative, to reduce water levels and to cure foods.

Discretionary foods such as pizzas, pastries, biscuits and take away foods as a whole, are the leading contributor to intakes of sodium in the Australian diet.[8] The main source of sodium to the diet are cereal-based products and dishes (including pizza and savoury pasta dishes), meat, poultry and their products (including processed meats, hamburgers and sausages) and cereal and cereal products (including breads and breakfast cereals).[4,8,9] Discretionary foods not only contribute large amounts of sodium to the diet but they displace the intake of healthy foods, many of which are naturally low in sodium.

Cardiovascular disease is the leading cause of death worldwide and kills more than 17 million people each year. High blood pressure is a major risk factor for CVD, responsible for 49% of coronary heart disease.[10] High consumption of sodium leads to increases in blood pressure among those with normal blood pressure as well as those whose blood pressure is already raised. Sodium consumption over 2,000 mg a day contributes to high blood pressure and increases the risk of heart disease and stroke.[3]

High blood pressure has been shown to be associated with socioeconomic status, with similar patterns seen in salt intakes. Those with lower education level attainment and in manual jobs had higher salt intakes even after geographical location was taken into account.[11]



Salt reduction

In 2012, the World Health Organisation (WHO) released its Non-Communicable Diseases Global Monitoring Framework with an ambitious target of 30% mean reduction in population salt intake by 2025, which Australia has signed up to achieve.[12] Reducing salt intake in Australia by 30% to achieve the WHO global targets Australia committed to, would save around 3,400 lives a year, with potential savings of millions of dollars in annual health care costs.[13,14] Similarly a modelling study in the US suggested that government collaboration with manufacturers to reduce salt in processed food could gain two million additional quality adjusted life years (QALYs) and annually save over US$32 billion in medical costs.[15]

Lowering population-wide salt intakes is widely considered to be more cost-effective than targeting sub-groups or individuals with diagnosed hypertension only.[16,17] Nation-wide approaches can help lower risk in those individuals who are unaware they have hypertension and sub-groups of the population that do not normally respond to health education messaging.[11,18]

It has been estimated that a universal reduction in dietary intake of sodium by about 1,000 mg of sodium a day, about 3 g of salt, would lead to a 50% reduction in the number of people needing treatment for hypertension. The same decrease would lead to a 22% drop in the number of deaths resulting from strokes and a 16% fall in the number of deaths from coronary heart disease.[19] With 6 million adult Australians (34%) with high blood pressure,[20] it's vital that a public health approach to salt reduction is implemented. An increasing number of countries are implementing salt reduction programs globally and there is growing evidence as to which types of interventions are effective.

Salt reduction policies

Reduction in salt content of foods requires the cooperation of manufacturers and retailers[21] but is one of the most cost effective preventative public health measures.[16] Not only are these preventative measures cost effective, they are becoming more popular and evaluations are demonstrating significant outcomes. Trieu et al, identified 75 countries which have salt reduction programs including; China, Denmark, Finland, France, Iceland, Ireland, Japan, Korea, Lithuania, Slovenia, Turkey, and the UK.[22] In terms of outcomes, the UK salt reduction programme has made significant reductions in salt content in many processed foods since its introduction in 2003-04, and a 15% reduction in 24-hour urinary sodium over 7 years, preventing 9000 premature deaths and saving £1.5 billion every year in health care and other costs.[23]

This reduction was attained through a coordinated, government-led approach which included the setting of progressive, time-bound sodium targets, highlighting that population level sodium reduction is achievable.

The SHAKE Technical Package for salt reduction is another international salt reduction policy and was developed by WHO in collaboration with the WHO Collaborating Centre for Population Salt Reduction at the George Institute for Global Health in Sydney, Australia, with input from a global network of salt reduction experts.[24] The SHAKE Package has been designed to assist Member States with the development, implementation and monitoring of salt reduction strategies to enable them to achieve a reduction in population salt intake.[24]

Australian salt reduction efforts

Healthy eating patterns will generally be lower in salt, but policy actions can further strengthen efforts to minimize salt intake. Given current eating patterns in Australia, reformulation of commonly consumed products presents a unique opportunity to reduce salt intake alongside consumer education campaigns to reduce intake of discretionary foods and high salt processed foods.

In Australia national salt reduction efforts in Australia are led by the Healthy Food Partnership. The Healthy Food Partnership is a Government led initiative which includes food industry and public health members. This initiative, which the Heart Foundation is a member of, is working to encourage voluntary reformulation of sodium among other nutrients. The Healthy Food Partnership replaces the Food & Health Dialogue which the Heart Foundation was actively involved in and which achieved sodium reduction in 17 food types in 8 food categories including breads, ready-to-eat breakfast cereals, simmer sauces, processed meats, soups, potato snacks, cheese and crackers.[25] The Dialogue made significant progress in sodium reduction in the Australian food supply between 2009-2015, with average sodium reductions of 32 per cent in ready-to-eat breakfast cereals; and over 80 per cent of target breads, ham and other cured meats, and ready-to-eat breakfast cereals meeting the agreed sodium targets in 2015.[25]

There are also examples of individual food manufactures and state level salt reduction initiatives such as the Victorian Salt Reduction Partnership (VSRP). The VSRP aims to achieve consensus and commitment on salt reduction action from governments, industry and the general public.

Despite salt reduction efforts to date, Australia is lacking a nationally coordinated nutrition survey in which 24-hour urinary sodium excretion testing (the gold standard when estimating population sodium intakes) is used. Currently, monitoring of dietary salt intake by the Australian Health Survey (AHS) was determined using spot urine tests. Results using spot urine tests need to be interpreted with caution when comparing with data from 24-hour urinary excretion testing.

Heart Foundation position

The Heart Foundation supports existing nutrient targets set by the NHMRC and the WHO and acknowledges the evidence review on sodium undertaken by both organisations. Based on this comprehensive evidence base, the Heart Foundation has endorsed the recommendations set out by the NHMRC and the WHO that all adult Australians should reduce their salt intake to less than 5 grams a day.

The promotion of dietary patterns and food-based messages is required to shift current eating patterns in a direction to reduce sodium intakes and improve cardiovascular health.

Recommendations

- A dietary patterns approach to communicating and promoting healthy eating messages which encompass recommendations for nutrient intakes, including sodium. The Heart Foundation encourages Australians to follow the heart-healthy eating principles which includes:

1. Plenty of vegetables, fruits and wholegrains.
2. A variety of healthy protein sources including fish and seafood, lean meat and poultry, legumes, nuts and seeds.
3. Reduced fat dairy such as unflavoured milk and yoghurt and cheese.
4. Healthy fat choices with nuts, seeds, avocados, olives and their oils for cooking.
5. Herbs and spices to flavour foods, instead of adding salt.

*Water as the drink of choice

- Due to the demonstrated relationship that exists between salt and blood pressure the Heart Foundation recommends that all Australians reduce their salt intake to less than 5 grams a day which can be achieved by adopting the Heart Foundation's heart-healthy eating principles and making healthier choices of commonly consumed processed foods which contain salt.
- The Heart Foundation calls on the Government and food companies to work towards reducing sodium in everyday processed and packaged foods by:
  - Setting progressive, time-bound sodium reduction targets in identified food categories and monitor implementation of progress towards the targets by food companies, (as recommended by the Healthy Food Partnership).
  - Monitoring population salt intakes through regular administration of the Australian Health Survey or a National Nutrition survey which measure food and nutrient intakes, and including 24-hour urinary sodium excretion studies in the biomedical component of the Australian Health Survey.
  - Implementing a mandatory front-of-pack labelling system, which includes salt/sodium, and monitoring compliance.
  - Delivering a consumer education campaign to promote healthy eating.

Related documents

- Heart Foundation (2017) Eating for Heart Health: Position
- Collins C, Burrows T, Rollo M. (2017) Dietary patterns and cardiovascular disease outcomes. University of Newcastle (for the National Heart Foundation of Australia). 2017.
- National Health and Medical Research Committee, Nutrient Reference Values 2017 position on sodium
- Victorian Salt Reduction Partnership position statement, Reducing the pressure on our health and economy: A call to action from the Victorian Salt Reduction Partnership

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