



EDITORIAL

Salt: A taste of death?

Salt is vital for all life but too much consumption of salt is detrimental for health. This fact has been known for a long time. A correlation has been found between dietary salt intake and blood pressure within populations [1]. High blood pressure is a well-known risk factor for stroke, heart, and kidney diseases and a reduction in salt intake leads to lowered blood pressure and reduced long-term risk of cardiovascular events [2]. In a study on salt restriction among hypertensive patients, sodium restriction for eight weeks resulted in better blood pressure regulation with a systolic and diastolic blood pressure difference of 5/5 mmHg, without any apparent unfavorable side effects [3]. The economic consequence of salt reduction as a population-based intervention has also been evaluated in connection with smoking cessation [4]. With the prevalence of hypertension as high as 20% [5] the importance of reducing salt intake in both primary and secondary prevention is immense [6]. The health benefits of cutting down on the amount of salt has been investigated with meta-analysis of randomized controlled trials and with only minor benefits with regard to the likelihood of dying or experiencing cardiovascular diseases (CVD), presumably due to the small blood pressure reduction achieved [7]. However, another Cochrane systematic review and meta-analysis of randomized trials concluded that a modest reduction in salt intake for four or more weeks would lead to significant and important fall in blood pressure, amongst both hypertensive and normotensive individuals [8]. The authors concluded that to reduce salt intake from 9–12 g/day to 5–6 g/day would have a major effect on blood pressure but a reduction to 3 g/day should be the long term target for population salt intake. High dietary intake of potassium and calcium can attenuate the blood pressure effect of high salt intake and a high ratio of sodium intake to potassium intake is also a potent CVD risk factor [9].

As CVD still accounts for 30% of all deaths and hypertension is estimated to contribute to 49% of all coronary heart disease and 62% of all stroke events, it is time to re-emphasize the importance of battling the high salt intake in our societies. Some campaigns for salt reduction have proved to be very valuable. Thus, in the UK, an operation which

started in 2003 led to a 15% reduction in salt intake during the next eight years and other countries like Finland, Portugal, and Japan have had similar results [10].

American recommendations advise less than 5.8 g/day of salt and even lower for those at higher risk of CVD. The average consumption among US adults is 10.4 g/day for men and 7.3 g/day for women. It has been estimated that a population-wide reduction in dietary salt of up to 3 g/day will significantly reduce the incidence of coronary heart diseases, stroke, and myocardial infarction. Furthermore, the cardiovascular benefits of reduced salt intake could be similar to the health benefits of smoking cessation and equal to the results of a population-wide reduction in obesity and cholesterol levels [11].

In Denmark, men consume on average 7–11 g of salt per day and women 7–8 g/day. The Danish Committee for Health Education has therefore emphasized the importance of reducing the salt intake among the general public and particularly among those with high blood pressure. Additionally, an easy-to-read brochure for the general public has been created (*Spis mad med mindre salt*) [12].

In Sweden, the average salt intake per person per day is between 10 and 12 g/per day despite the fact that the National Food Agency (*livsmedelverket*) recommends below 6 g/day. The Swedish Council on Health Technology Assessment in March 2014 published a summary on the effect of high salt intake on blood pressure [13].

In Iceland, the average salt intake has reduced by 5% between 2002 and 2011. Women consume on average 6.5 g/day of salt and men 9.5 g/day. However, this still is well above the general recommendations given by the Icelandic Directorate of Health, i.e. below 7 g of salt per day for men and 6 g/per day for women.

It is estimated that about 80% of dietary salt comes from processed food and 15–20% from salt added when cooking or during consumption. Thus a diet low in processed food and high in fresh fruits and vegetables should be low in salt. To reduce dietary intake of salt a comprehensive approach is needed, involving health policy-makers by setting regulations on the salt content of foods and labeling processed

food so that consumers are provided with information necessary to allow them to make the right choice. The 20% of the salt intake that is accounted for when cooking and eating home-prepared food should also be the obvious target of the battle against high salt intake. This campaign should start at an early age as a link between salt intake, soft drink consumption, and obesity has been suggested [14].

Many professional societies and the World Health Organization have put an emphasis on the importance of reducing salt consumption. General practitioners can and should play a vital role in arguing for public health initiatives in order to lower the salt in processed food. This can be accomplished by influencing health authorities to pass on legislation on the salt content of foods and moreover by giving the general public the information and support necessary to make dietary changes.

The positive results of campaigns for smoking cessation should be an inspiration to put into action a fight against high dietary salt intake and at the same time incorporating that battle into the action against obesity and alcohol overconsumption.

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