

CORRESPONDENCE

Salt Restriction for the Prevention of Cardiovascular Disease

by Prof. Dr. med. Dieter Klaus, Prof. Dr. med. Joachim Hoyer,
Prof. Dr. med. Martin Middeke in volume 26/2010

Dietary Salt Is a Health Political Problem

The article showed clearly the risk for hypertension and other cardiovascular diseases as well as a reduction in blood pressure in hypertensive and normotensive subjects.

These data are supported by two recent studies (1, 2). One used a complex model to simulate the population-wide reduction of dietary salt by 3 g/day (3). The study found that the number of new cases of coronary heart disease (CHD) in the US could be reduced by 60 000 to 100 000 per year; for stroke, myocardial infarction and other causes of death the reductions were of a similar order of magnitude. Additionally, the benefits of reducing dietary salt by using salt substitutes or spices were shown, as was the prevention of the typical rise in blood pressure with increasing age (2). In the short term, after 4 months of reducing dietary salt, hypertensive subjects showed a 11.2/7.5 mm Hg fall in blood pressure, which was further increased to 16.1/9.9 mm Hg by reducing calorie intake (3).

Only few European countries have thus far used legislation to reduce the burden of disease by reducing dietary salt. Typical for this situation is a recent press release according to which Germany's bakers were able to stand their ground against EU bodies, meaning that they are allowed to keep the salt content in bread at a level that is double the permitted amount, making bread the main source of daily dietary salt intake in Germany.

Attempts should be made to follow the recommended amount of 6.8 g/day for people aged up to 40 and of below 3.7 g/d for people with hypertension. In spite of substantial data, health political pressures are not likely to affect the power of lobbyists in Brussels and Berlin. Another sign of this is the likely failure of the planned traffic light marking system for foods, which would award a "red" mark to foods with a high salt content.

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In Reply:

We thank Professor Heitkamp for his valuable comments and for mentioning recent studies into reducing dietary salt intake. These support the benefit of such a measure for reducing cardiovascular diseases. His prediction of a rejection of the traffic light marking system for foods has turned out to be correct, as a result of a decision by the European Parliament in June 2010. We wish to point out that a whole range of packaged foods includes guideline daily amounts (GDAs), which show purchasers what proportion of the daily upper limit of 6 g dietary salt or 2.3 sodium they are ingesting in a portion of the respective food. However, the salt content is mostly reported as grams of sodium, which may easily lead to misinterpretation because the sodium content has to be multiplied by 2.5 in order to calculate the amount of dietary salt in grams. Clarification and standardization are required.

With regard to the recommended upper limits of daily dietary salt intake, Western countries should strive to set standard values. The current upper limits, as stipulated by the specialist societies and the World Health Organization, are between 3.8 g and 6 g of dietary salt per day. The American Heart Association demands a reduction in the daily intake of dietary salt to 5.8 g for adults, adolescents, and pregnant women, and to 3.8 g for persons older than 55, those with hypertension or renal disorders, and diabetes patients (1). The National Institute for Health and Clinical Excellence in London is targeting a reduction to 3 g/d by 2025, a target that is likely to be missed in practice and may even entail risks (2).

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Conflict of interest statement

The authors of both contributions declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.