

Salt substitutes and misrepresentation of WHO recommendations

I read with interest the Comment by Elisa Pineda and Thomas Beaney published in *The Lancet Public Health*¹ and their interpretation of the WHO recommendations regarding the role of lower-sodium salt substitutes in the global strategy to reduce population sodium consumption for the reduction of cardiovascular disease. The WHO guideline does not advocate for a switch from regular salt (sodium chloride) to potassium-enriched salt substitutes (appendix p 2). WHO recommendations say to reduce sodium intake (strong recommendation); then, if there is still a need to use table salt, to replace that with lower-sodium salt substitutes (conditional recommendation). The guideline does not apply to discretionary use of condiments or non-discretionary salt in manufactured foods or food served at out-of-home settings, is intended for adults in the general population, not those with kidney impairments or compromised potassium excretion, and does not apply to children or pregnant women.²

Pineda and Beaney suggest that there is compelling evidence that a policy of substituting table salt with lower-sodium salt substitutes would contribute to a reduction in sodium consumption. However, the little available trial evidence is currently based on studies in groups at high risk (hypertensives² and older people with pre-existing cardiovascular disease³⁻⁴) and in two countries (Peru² and China³⁻⁴), making the results not generalisable to a healthy population, and not to the UK as a preferred policy option. Although the use of lower-sodium salt substitutes shows a reduction in blood pressure² and cardiovascular disease outcomes,³⁻⁴ its use has no effect on reducing sodium intake (appendix p 3). In one study,² an increase in potassium intake was

associated with no change in sodium in a population whose consumption of sodium was 3.95 grams per day. In a trial in China,³ the intervention resulted in potassium increase with only a small change in sodium intake that remained at 3.95 grams per day. The benefits seen on both blood pressure and cardiovascular disease are likely attributable to the independent effect of higher potassium consumption.⁵

Finally, the use of lower-sodium salt substitutes would be expected to reduce sodium consumption by at least a third.⁶ Since the changes in sodium intake were much less than expected when compared with the control group on usual salt, it is reasonable to postulate that participants on lower-sodium salt substitutes might have increased their consumption of sodium from other sources. Therefore, there is no evidence to date to support the statement that lower-sodium salt substitutes reduce sodium consumption.

I was one of the expert reviewers for the final WHO guideline. This Correspondence does not represent the decisions or the stated policy of WHO, and the designations used and the presentation of material do not imply the expression of any opinion on the part of WHO.

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- 2 Bernabe-Ortiz A, Sal Y Rosas VG, Ponce-Lucero V, et al. Effect of salt substitution on community-wide blood pressure and hypertension incidence. *Nat Med* 2020; **26**: 374–78.
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- 4 Ding X, Zhang X, Huang L, et al. Salt substitution and recurrent stroke and death. A randomized clinical trial. *JAMA Cardiol* 2025; **10**: 343–50.
- 5 Aburto NJ, Hanson S, Gutierrez H, Hooper L, Elliott P, Cappuccio FP. Effect of increased potassium intake on cardiovascular risk factors and disease: systematic review and meta-analyses. *BMJ* 2013; **346**: f1378.

- 6 Egan BM, Lackland DT, Sutherland SE, et al. PERSPECTIVE - The Growing Global Benefits of Limiting Salt Intake: an urgent call from the World Hypertension League for more effective policy and public health initiatives. *J Hum Hypertens* 2025; **39**: 241–45.



For the WHO guideline on the use of lower-sodium salt substitutes see <https://www.who.int/publications/i/item/9789240105591>
See Online for appendix