

POTASSIUM

Use of lower-sodium salt substitutes: WHO guideline

A summary for policy makers

PRIORITY PROBLEM:

Eating too much sodium and insufficient potassium are well-established causes of *raised blood pressure*, which is the leading cause of death and disability worldwide.

All World Health Organization (WHO) Member States have committed to a global target of *reducing population sodium intake* by 30% by 2025. Despite efforts made by Member States, global sodium intake remains high – more than double the WHO recommendation of less than 2g/day (equivalent to 5g/day of salt),¹ demanding urgent and accelerated action.²

WHAT ARE LOWER-SODIUM SALT SUBSTITUTES:

Lower-sodium salt substitutes are *alternatives to regular table salt, where a proportion of sodium is replaced with potassium*, helping to reduce sodium intake while increasing potassium consumption. These substitutes can be used by the consumer through a switch during cooking or at the table, and as an ingredient in manufactured foods and meals served in restaurants and other out-of-home settings.

GUIDELINE RECOMMENDATION:

If choosing to use table salt, *WHO suggests replacing regular table salt with lower-sodium salt substitutes that contain potassium.*³

IMPLEMENTATION:

Replacing regular table salt with lower-sodium salt substitutes that contain potassium is a cost-effective strategy for the prevention of cardiovascular diseases and acceptable by consumers. Switching to lower-sodium salt substitutes should be part of a *comprehensive national strategy* to reduce sodium intake.

Implementation of lower-sodium salt substitutes must be *in line with country iodisation programs* and iodisation of lower-sodium salt substitutes should continue in the same way as regular salt.

In addition to developing new strategies to promote the switch to lower-sodium salt substitutes, it can also be incorporated into existing sodium reduction policies, including:

- **Food reformulation*** – lower-sodium salt substitutes can be used to reduce sodium levels in packaged foods to meet the sodium content limits or targets.
- **Food procurement and service policies*** – lower-sodium salt substitutes can be used to achieve the sodium content criteria in food served or sold in public settings and/or procured by government for food programs. Including replacing all table salt in shakers and sachets with lower-sodium salt substitutes.
- **Food and nutrition labelling policies** – list and declare sodium, potassium, and lower-sodium salt substitutes on packaged foods. Lower-sodium salt substitutes can be used to lower sodium content to set criteria for front-of-pack labelling.
- **Behaviour change communication** – activities designed to change behaviours towards reducing sodium consumption should include education about replacing regular table salt with lower-sodium salt substitutes.

*Use within manufactured and out-of-home foods was not within the scope of the guidelines, however, the replacement of regular table salt with lower-sodium salt substitutes containing potassium in these foods would also be beneficial to population health.

1 World Health Organization. (2012). Guideline: sodium intake for adults and children. World Health Organization. <https://iris.who.int/handle/10665/77985>

2 World Health Organization. (2023). WHO global report on sodium intake reduction. World Health Organization. <https://iris.who.int/handle/10665/366393>.

3 World Health Organization 2025. Use of lower-sodium salt substitutes: [WHO guideline](#).



COUNTRY EXAMPLE: SINGAPORE**

The government of Singapore employs a multi-faceted sodium reduction strategy targeting key sources of sodium such as salt, sauces, and seasonings. A key component is promoting the switch from regular salt to lower-sodium, potassium-enriched salt. Clinicians and professional associations advise that such products are considered safe for individuals with early-stage chronic kidney disease, though those with late-stage chronic kidney disease should limit all salt (regular or potassium-enriched) consumption. The government of Singapore also offers grants to manufacturers to develop, reformulate and distribute

lower-sodium foods, improving availability and uptake by food operators. Such strategies are supported by a new Nutri-Grade label and advertising restrictions that are applied to high-sodium products like salt, sauces, seasonings, and instant noodles to further reduce sodium levels. To improve consumer awareness and behaviour, Singapore runs a public education campaign and a food labelling program to encourage the switch to lower-sodium alternatives.

**Annex 8 of the WHO guideline use of lower-sodium salt substitutes includes examples of country-level approaches to promoting the transition to these substitutes.

HEALTH OUTCOMES:

In adults, the use of lower-sodium salt substitutes that contain potassium, compared to regular table salt, has led to *reductions in blood pressure and cardiovascular disease risk*, with no increased risk of hyperkalaemia (a high level of potassium in the blood) amongst the general population.

Risk of hyperkalaemia – There is no evidence from trials among the general population that suggests the use of lower-sodium salt substitutes that contain potassium instead of regular salt causes hyperkalaemia. There is, however, a rationale for increased risk of hyperkalaemia if lower-sodium salt substitutes that contain potassium are consumed in excess among people with chronic kidney disease, using other potassium supplements or potassium-sparing diuretics. While such individuals and healthcare professionals are aware of the need to avoid excess intake of potassium-enriched salt or potassium, the risk can be further mitigated with clear labelling of potassium in foods and lower-sodium salt substitutes that contain potassium, and education.

NOTES:

WHO recommendations can be either strong or conditional determined based on several factors.⁴ The recommendation for use of lower-sodium salt substitutes is conditional, as the overall certainty of the evidence was deemed low according to the GRADE framework. This reflects the cautious approach taken by the review and guideline development teams. Conditional recommendations are common in nutrition-related policies due to the nature of the research. For instance, other WHO guidelines with conditional recommendations include fiscal policies

RESOURCES:

The George Institute for Global Health in collaboration with other global health organisations, is generating evidence and working to scale-up the switch from regular salt to lower-sodium salt substitutes that contain potassium across the global food supply. The goal is to increase their availability, accessibility, awareness and acceptability worldwide.

Existing information and resources are available on the #SwitchTheSalt webpage at <https://www.georgeinstitute.org.au/switchthesalt>, which includes short explainer videos, an evidence library, information for healthcare professionals and consumers, as well as a lower-sodium salt substitute product finder.

For additional information about research, implementation support and future initiatives contact: potassiumsalt@georgeinstitute.org

to promote healthy diets,⁵ and measures to protect children from the harmful effects of food marketing.⁶ Such recommendations often require thorough discussions among national policymakers before they are implemented. As the body of robust research in nutrition policies continues to grow, it is likely that the guideline recommendations will be updated.

4 World Health Organization. (2014). WHO handbook for guideline development, 2nd ed. World Health Organization. <https://iris.who.int/handle/10665/145714>

5 World Health Organization. (2024). Fiscal policies to promote healthy diets: WHO guideline. World Health Organization. <https://iris.who.int/handle/10665/376763>.

6 World Health Organization. (2023). Policies to protect children from the harmful impact of food marketing: WHO guideline. World Health Organization. <https://iris.who.int/handle/10665/370113>