

SCIENCE alert



Research Shows One Easy Diet Swap Can Reduce Blood Pressure And Heart Attacks

HEALTH 03 February 2024
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(Drbouz/E+/Getty Images)

One in three Australian adults has high blood pressure (hypertension). Excess salt (sodium) increases the risk of high blood pressure so everyone with hypertension is advised to reduce salt in their diet.

But despite decades of strong recommendations we have <u>failed</u> to get Australians to cut their intake. It's hard for people to change the way they cook, season their food differently, pick low-salt foods off the supermarket shelves and accept a less salty taste.

Now there is a simple and effective solution: potassium-enriched salt. It can be used just like regular salt and most people don't notice any important difference in taste.

Switching to potassium-enriched salt is feasible in a way that cutting salt intake is not. Our new research concludes clinical guidelines for hypertension should give patients









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Potassium-enriched salts replace some of the sodium chloride that makes up regular salt with potassium chloride. They're also called low-sodium salt, potassium salt, heart salt, mineral salt, or sodium-reduced salt.

Potassium chloride looks the same as sodium chloride and tastes very similar.

Potassium-enriched salt works to lower blood pressure not only because it reduces sodium intake but also because it <u>increases</u> potassium intake. Insufficient potassium, which mostly comes from fruit and vegetables, is another big cause of high blood pressure.

What is the evidence?

We have strong evidence from a <u>randomized trial</u> of 20,995 people that switching to potassium-enriched salt lowers blood pressure and reduces the risks of stroke, heart attacks and early death. The participants had a history of stroke or were 60 years of age or older and had high blood pressure.

An overview of 21 other studies suggests much of the world's population could benefit from potassium-enriched salt.

The World Health Organization's 2023 global report on hypertension highlighted potassium-enriched salt as an "affordable strategy" to reduce blood pressure and prevent cardiovascular events such as strokes.

What should clinical guidelines say?

We teamed up with researchers from the United States, Australia, Japan, South Africa and India to review 32 clinical guidelines for managing high blood pressure across the world. Our findings are <u>published today</u> in the American Heart Association's journal, Hypertension.

We found current guidelines don't give clear and consistent advice on using potassiumenriched salt.

While many guidelines recommend increasing dietary potassium intake, and all refer to reducing sodium intake, only two guidelines – the Chinese and European – recommend using notassium-enriched salt

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Strong recommendation for patients with hypertension – Potassium-enriched salt with a composition of approximately 75% sodium chloride and 25% potassium chloride should be recommended to all patients with hypertension, unless they have advanced kidney disease, are using a potassium supplement, are using a potassium sparing diuretic or have another contra-indication.

Conditional recommendation for the general population – If you have to add salt to foods, potassium-enriched salt with a composition of approximately 75% sodium chloride and 25% potassium chloride can be recommended for use by the general population in settings where there is a low likelihood that people with advanced kidney disease (stage 4-5) will be undiagnosed by the health system and contraindications to use can be printed on product packaging.

Recommended wording for guidance about the use of potassium-enriched salt in clinical management guidelines.

Why do so few people use it?

Most people are unaware of how much salt they eat or the health issues it can cause. Few people know a simple switch to potassium-enriched salt can help lower blood pressure and reduce the risk of a stroke and heart disease.

Limited availability is another challenge. Several Australian retailers stock potassiumenriched salt but there is usually only one brand available, and it is often on the bottom shelf or in a special food aisle.

Potassium-enriched salts also cost more than regular salt, though it's still low cost compared to most other foods, and not as expensive as many fancy salts now available.

A 2021 review found potassium-enriched salts were marketed in only <u>47 countries</u> and those were mostly high-income countries. Prices ranged from the same as regular salt to almost 15 times greater.

Even though generally more expensive, potassium-enriched salt has the potential to be highly cost effective for disease prevention.

Preventing harm

A frequently raised concern about using potassium-enriched salt is the risk of high blood potassium levels (hyperkalemia) in the approximately 2% of the population with serious kidney disease.

People with serious kidney disease are already advised to avoid regular salt and to avoid foods high in notassium

disease.

Our current priority is to get people being managed for hypertension to use potassiumenriched salt because health-care providers can advise against its use in people at risk of hyperkalemia.

In some countries, potassium-enriched salt is recommended to the entire community because the potential benefits are so large. A modelling study showed almost half a million strokes and heart attacks would be averted every year in China if the population switched to potassium-enriched salt.

What will happen next?

In 2022, the health minister launched the National Hypertension Taskforce, which aims to improve blood pressure control rates from 32% to 70% by 2030 in Australia.

Potassium-enriched salt can play a key role in achieving this. We are working with the taskforce to update Australian hypertension management guidelines, and to promote the new guidelines to health professionals.

In parallel, we need potassium-enriched salt to be more accessible. We are engaging stakeholders to increase the availability of these products nationwide.

The world has already changed its salt supply once: from regular salt to iodized salt. Iodization efforts began in the 1920s and took the best part of 100 years to achieve traction. Salt iodization is a key public health achievement of the last century preventing goitre (a condition where your thyroid gland grows larger) and enhancing educational outcomes for millions of the poorest children in the world, as iodine is essential for normal growth and brain development.

The next switch to iodized and potassium-enriched salt offers at least the same potential for global health gains. But we need to make it happen in a fraction of the time.

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