

# Salt consumption and cardiovascular disease

by Larry Huang

High blood pressure is the major cause of stroke in China and the Asia-Pacific region, and the simplest approach to lower blood pressure (BP) is to reduce the dietary consumption of salt, according to Dr Rachel Huxley, Director of Nutrition and Lifestyle Division at the University of Sydney. This offers a low cost strategy for the prevention of stroke and other cardiovascular diseases.

“There is very good evidence in the past 30 years that the amount of salt we eat correlates very well with blood pressure. The higher the salt we take, the more likely we will develop high blood pressure,” she said.

Although substantial amounts of observational data supporting an association between reduced salt intake and lower BP exist, there is no large randomized trial to show the long-term effects of salt on cardiovascular disease outcomes to reach clear conclusions.

To reduce salt, there remain some obstacles, for example, dietary cations are hard for individuals to modify and there are commercial disincentives to change. She thinks a salt substitute might be appropriate to reduce consumption.

Dr Huxley described a pilot study in China, which demonstrated that among 600 individuals receiving a salt substitute in rural northern China, blood pressure lowering was impressive, with a maximum reduction of blood pressure of 5.4 mmHg at 12 months. The low-sodium, high-potassium salt substitute could reduce blood pressure to about the same extent as single drug therapy.

To further explore the relationship between salt consumption and CVD events, she designed the China Salt Reduction Trial, which plans to have 10,000 participants at high risk of CVD. The intervention will be a reduced-sodium, high-potassium salt substitute. Persons included will be randomized to a salt group and a salt substitute group. Follow-up is expected to be 3.5 years, after which she hopes there will be a substantial reduction in death, heart attack and stroke.

The salt substitute will provide an immediate, short-term CVD benefit in China and elsewhere where discretionary use of salt is high. Moreover, findings will provide definitive evidence that reducing dietary salt intake will substantially reduce CVD morbidity and mortality. ■