

Study: US-Wide Salt Reduction Could Prevent Deaths

The United States could prevent up to half a million deaths over the next decade if Americans cut their salt intake to within national guidelines, according to a new study.

That finding—which comes the week New York City announced success toward its goals of cutting salt levels by one-quarter by 2014—is based on computer simulations using data from various studies on the effects of extra sodium on blood pressure and heart risks.

The Institute of Medicine recommends most healthy people get 1,500 milligrams (mg) of sodium per day, with an upper limit of 2,300 mg. But the average American eats more like 3,600 mg each day, largely through processed food.

“Reducing sodium intake is important for everyone, not just a small subset of people who are salt sensitive,” said Pamela Coxson, the study’s lead author from the University of California, San Francisco.

Although the health effects of a salt cutback may be small for the average person, she said, the results show they add up when projected across millions of Americans.

Still, one blood pressure researcher not involved in the new study said the models don’t reflect the full picture of health consequences tied to too little or too much salt.

Coxson and her colleagues ran three salt-reduction scenarios through models that predicted how a lower-sodium diet would impact a person’s risk of having high blood pressure or dying of cardiovascular disease.

The most realistic scenario was a gradual decline in

Americans' average sodium intake over ten years to about 2,200 mg per day. That goal would be "optimistic but potentially achievable," the researchers wrote in the journal Hypertension.

Based on their calculations—and taking into account uncertainties about sodium's direct effect on the heart—Coxson and her colleagues calculated 280,000 to 500,000 fewer Americans would die over the next decade as a result of that reduction.

A more dramatic and immediate decline to 1,500 mg of salt per day across the U.S. population could prevent up to 1.2 million deaths, largely from heart disease or stroke, the researchers calculated. But that isn't very realistic, policy-wise.

"The gradual reduction is something that many countries around the world are working on in various ways," Coxson told Reuters Health.

For example, she said, some countries have worked with bakers to cut back on sodium in bread, and others have focused on meat and canned goods.

"The big majority of our intake of sodium is coming from those types of processed foods," Coxson said.

"The individual at home with their salt shaker only controls maybe 20 to 25 percent of their intake."

Too Little Sodium?

Dr. Michael Alderman from the Albert Einstein College of Medicine in Bronx, New York, said the researchers' calculations are missing data on how too little sodium can also raise heart risks, through its effect on blood fats and insulin.

"They begin with the hypothesis that lowering sodium intake, because it will lower blood pressure—and nobody debates

that—will inevitably translate into a reduction in cardiovascular events,” he told Reuters Health.

But in reality, he said, “The net effect of these conflicting consequences of reducing sodium will be the health effect.”

Alderman said there’s no evidence eating less than 2,000 mg of sodium per day is beneficial for the average person. “Like every other essential nutrient that I know of, too little is not good for you, and too much is not good for you,” he said.

For people who do want to cut back on their sodium, Coxson said diet changes are possible despite the influence of the country’s salty, processed food environment.

“The best thing would be if we could all shift our consumption a little more toward fresh fruits and vegetables, and away from processed foods,” she said.