

In the war on salt, not everyone need be a soldier, some experts say

November 22 2011, By Alexia Elejalde-Ruiz

Despite several decades of urging from doctors and government officials to cut back on salt, a culprit in high blood pressure, most Americans aren't paying much attention.

Americans consume, depending on which study you look at, an average of 3,000 to 4,000 milligrams of sodium per day, significantly higher than the 2,300 mg limit the government recommends for a healthy person, and more than double the 1,500 mg target advised for high-risk populations, which include people older than 50, African-Americans, and anyone with high [blood pressure](#), diabetes or chronic kidney disease.

Ninety-nine percent of people advised to consume fewer than 1,500 mg (estimated at 50 to 70 percent of the population) exceed that limit, and nearly 90 percent of everyone else exceeds the 2,300 mg recommendation, the [Centers for Disease Control and Prevention](#) reported in October. Our sodium [consumption levels](#) have been steady for more than a decade.

Lack of concern and awareness are the primary reasons behind the high sodium intake, according to a survey done this year by the nonprofit International Food Information Council. Though 83 percent of Americans believe certain people should be concerned with their sodium intake, just 42 percent are concerned about their own consumption and 62 percent are unaware that sodium guidelines even exist.

We ingest much of our sodium without realizing it. Seventy-seven

percent of our sodium consumption comes from processed and restaurant foods.

The American Public Health Association this month called on the [Food and Drug Administration](#) to start regulating sodium in the food supply within a year, with the goal of reducing it by 75 percent within 10 years. It follows a similar regulatory call to action last year by the Institute of Medicine, an influential medical advisory group that is part of the [National Academy of Sciences](#), which called voluntary efforts at sodium reduction a failure.

Yet some studies question whether that's such a good idea. This month a review of 167 studies published in the American Journal of Hypertension concluded that research does not support cutting sodium has population-wide benefit, as it reduces blood pressure by less than 1 percent in Caucasians with normal blood pressure and actually increases cholesterol, triglycerides and some hormones. One headline this summer in the popular science magazine Scientific American declared: "It's Time to End the War on Salt."

Though some hope blanket recommendations will stem the high sodium tide wrought by processed food and obesity, the public's ambivalence may reflect long-standing controversy on how much sodium is too much, how much it affects blood pressure, and whether it's wise to set guidelines for the entire population when individuals' response to sodium varies.

Sodium, an element we get primarily through salt (a mineral made up of 40 percent sodium and 60 percent chloride), is essential in our bodies for regulating blood volume, promoting nutrients across cell membranes and managing muscle contractions. When healthy people have too much, the excess is filtered out through urination.

Studies have shown reducing sodium can reduce blood pressure - which, when it's too high, raises the risk of coronary heart disease, the leading cause of death in the U.S., and stroke, heart failure and [chronic kidney disease](#).

About 30 percent of Americans have high blood pressure, considered to be at 140 over 90 millimeters of mercury, or mmHg, and above, and another third are pre-high blood pressure, defined as lower than 140 over 90 mmHg but higher than 120 over 80 mmHg, according to the CDC. Because blood pressure rises as we age, some 90 percent of Americans eventually develop high blood pressure.

The FDA, which this month hosted a public meeting on the subject, has not made any final decisions in terms of regulatory action limiting sodium in food, a spokeswoman said.

The American Heart Association advocates that 70 percent of us should be aiming to consume 1,500 mg a day of sodium, which also is the amount the Institute of Medicine says is needed to adequately meet the average active person's salt needs (you need more if you're a competitive athlete or work in a hot environment).

For young, healthy people with normal blood pressure, "the data is not strong" to suggest that consuming a high-sodium diet now leads to higher blood pressure later in life, said Dr. Gordon Tomaselli, president of the American Heart Association and chief of cardiology at Johns Hopkins Medical Center. Still, if eating less sodium leads to modest reductions in blood pressure in people without high blood pressure, it's good for heart health, he said.

"The best blood pressure for anyone is the lowest blood pressure you can get without symptoms," Tomaselli said. If blood pressure gets too low, symptoms could include dizziness, nausea and fatigue.

Some researchers say that reducing sodium doesn't offer a significant enough blood pressure drop to warrant a populationwide guideline, and it doesn't have the same effect in everyone.

Dr. John Laragh, director of the cardiovascular center at New York-Presbyterian Hospital/Weill Cornell Medical Center, said reducing sodium is a worthy treatment tool for specific hypertensive patients, but he believes only 40 percent of high blood pressure is salt-related. The other 60 percent is caused by renin, a hormone secreted by the kidneys that helps regulate blood pressure. So 60 percent of hypertensives won't respond to sodium reduction, and might even respond poorly, as low-sodium can cause renin to spike and, ironically, raise blood pressure.

Laragh worries people might take the anti-sodium message to an extreme and try eliminating all sodium, which is dangerous. When cutting sodium does drop blood pressure, he notes, it's only a few degrees.

"It's true that (Americans' sodium consumption) numbers are high, but it's equally true that (lowering) it usually doesn't mean a thing to anybody," said Laragh, founding president of the American Society of Hypertension. "It's not enough to save you from getting hypertension."

Tomaselli said that though lowering sodium won't normalize blood pressure in hypertensive patients, it can lower the overall population's blood pressure and consequently may reduce the populationwide risk for stroke and heart attack.

In a 1997 meta-analysis of 32 clinical studies, it was estimated that reducing sodium by 2,300 mg per day would reduce blood pressure by 4.8 over 2.5 mmHg in hypertensive people, and by 1.9 over 1.1 in people with normal blood pressure.

A 2002 study in the *Lancet* found that reducing systolic blood pressure

by 10 mmHg or diastolic by 5 mmHg over the long term could reduce the risk of death by stroke by 40 percent, and by coronary heart disease by 30 percent.

Tomaselli emphasizes that sodium reduction is "one of the main components of a healthy diet." Getting three to four servings of fruits and vegetables daily, eating oily fish three times a week and avoiding trans fats and saturated fats also are crucial.

IF YOU CHOOSE TO CUT BACK

While nothing mimics salt, using lemon juice and various herbs and spices in cooking can help add flavor, cut bitterness and improve mouthfeel, said Gary Beauchamp, director of Monell Chemical Senses Center in Philadelphia.

Another option is to use a salt substitute that swaps out sodium for potassium, though potassium chloride can taste "off" to some people, Beauchamp said. Talk of developing salt taste enhancers, which would deliver big taste with minimal [sodium](#), are in preliminary stages.

Researchers are exploring a stealth approach, wherein salt is reduced little by little so people don't notice, Beauchamp said. People probably can't taste an 8 to 10 percent salt reduction, he said, and after a while people adapt to even noticeable salt changes. Subjects in a study that lowered salt intake by 30 to 40 percent actually preferred the less salty diet six to eight weeks later, Beauchamp said.

40 percent of [high blood pressure](#) is related to salt, said Dr. John Laragh, New York-Presbyterian Hospital/Weill Cornell Medical Center cardiovascular center director.

(c)2011 the Chicago Tribune

Distributed by MCT Information Services

Citation: In the war on salt, not everyone need be a soldier, some experts say (2011, November 22) retrieved 26 April 2024 from <https://medicalxpress.com/news/2011-11-war-salt-soldier-experts.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.