

Too much salt

Sodium is the new dietary outlaw—and not just for its role in hypertension



By Lisa Marshall

a diet heavy in sodium can cause puffy eyes, headaches, and a craving for calorie-laden drinks in the short run. Over time, it not only sends blood pressure soaring but may also boost chances of developing stomach problems, osteoporosis, and kidney stones. Yet despite decades of government warnings and reams of fresh research about the myriad health hazards of excess sodium, we now eat up to 50 percent more than we did 30 years ago, feasting on a steady diet of packaged foods and restaurant fare that—unbeknownst to many—delivers a whopping 80 percent of our sodium.

“People have gotten the message about not using the salt shaker, but they don’t realize that’s not where they get all the salt in the first place,” says Stephen Havas, MD, an adjunct professor of preventive medicine at Northwestern University Feinberg School of Medicine. “The problem is salt in processed and restaurant food.”

In April, the Institute of Medicine aired that message loud and clear with a scathing 291-page report calling on the FDA to boldly revoke salt’s status as an ingredient that is “generally recognized as safe” (GRAS) and to start limiting how much manufacturers may add to food. In the meantime, New York City Mayor Michael Bloomberg recently launched his own campaign, inviting restaurants and food manufacturers nationwide to voluntarily slash sodium 25 percent by 2014 (Subway, Starbucks, Heinz, Kraft, and several other companies have signed on). And physicians—spurred by new research suggesting excess salt kills 92,000 people annually via heart disease, heart attack, and stroke—have started talking to patients with greater urgency about sodium.

“We have paid a lot of attention to fats and cholesterol,” notes University of California, San Francisco, epidemiologist Kirsten Bibbins-Domingo, PhD, MD. “The time is now to start thinking about salt.” Here’s why. ➤

BY THE NUMBERS

2,300 mg sodium Recommended *maximum* daily intake for people under 40 (about 1 teaspoon salt)

1,500 mg sodium Recommended *maximum* daily intake for people over 40, African Americans, or those with hypertension (about $\frac{3}{4}$ teaspoon salt)

3,400 mg sodium Average daily consumption among Americans (almost 2 teaspoons salt)

High blood pressure

Don't have hypertension yet? Just wait. Most people are well aware that those with, or at risk of, high blood pressure should go easy on the salt. What they don't realize is that means most of us.

"A little more than 90 percent of the population in this country ultimately develops high blood pressure," says Havas, noting that one-third of adults already have hypertension, and blood pressure slowly creeps up after about age 40 (due largely to the cumulative effects of excessive salt intake), leading to a host of cardiovascular problems.

Here's what happens: Sodium draws in water, leading to increased blood volume. Like a hose on full blast, that boosted pressure strains at the heart and increases atherosclerosis in the arteries. And if an artery becomes sufficiently narrowed, it can lead to a heart attack or stroke.

The good news: According to one study, cutting salt intake from 9.7 to 6.5 grams per day can reduce average blood pressure significantly within six weeks. If we all cut our sodium intake by a modest 3 grams per day, or roughly one-half teaspoon, it still wouldn't get us to recommended levels, but

it would be a good start with extensive impacts. New heart disease cases would drop by as many as 120,000 cases annually, stroke incidence would decline by up to 66,000 cases annually, and deaths from heart disease, heart attack, and stroke would decline drastically, according to a landmark study earlier this year, published by Bibbins-Domingo in the *New England Journal of Medicine*.

Stomach and kidney problems

Recent animal and human studies suggest that excess sodium can also interfere with the production of protective gastric mucus (leaving the stomach vulnerable to pathogens and carcinogens) and breed a virulent strain of the bacterium *H. pylori*, the leading cause of stomach ulcers.

In fact, countries with high salt intake, such as Japan and the United States, tend to have higher rates of gastric ulcers. One study of 40,000 Japanese people found that men who ate the most salt had twice the rate of stomach cancer than those who ate the least. And a sweeping 2009 research review concluded that "limitation on salt ►

How to reduce sodium intake

1 Recognize hidden salt mines, such as lunch meats, many breads and baked goods (pita, corn tortillas), soba and Chinese noodles, many cheeses (cottage, American), tomato juice and spaghetti sauce, instant oatmeal, and cocoa mixes.

2 Be a savvy label reader. "Reduced" sodium means 25 percent less than normal; "light" means 50 percent less; "low" means no more than 140 mg per serving; "very low" means 35 mg or less; and "sodium free" means less than 5 mg. When checking the Nutrition Facts panel, look for no more than 5 percent of the Daily Value of sodium per serving, or 115 mg for adults.

3 Seek out low-sodium versions. Choose unsalted butter and reduced-sodium tamari or soy sauce, soups, ketchup, salad dressings, and other packaged foods.

4 Eat more potassium. Orange-colored fruits and vegetables (from apricots to acorn squash), bananas, artichokes, bok choy, spinach, Swiss chard, potatoes with skins on, and other potassium-rich foods can help counteract the adverse effects of sodium.

5 Order smart. Ask the waiter if your meal can be made with less salt, or get sauces on the side. Choose grilled meat rather than fried or breaded. Go easy on sodium-heavy condiments for your burger. Ditto with salad dressing, and skip the croutons. When cooking at home, use lemon juice, garlic, and fresh herbs to flavor your meals.

wellness

and salted food consumption is a practical strategy for preventing gastric cancer.”

Although research is young, some studies suggest a high-salt diet can also prompt the kidneys to excrete more calcium, wreaking havoc on bone strength. One study of Australian women ages 45 to 75 found that those consuming a lower-sodium diet (2,400 mg daily or less) excreted far less calcium in their urine than those on a high-carb, low-fat diet with unrestricted sodium intake.

And scientists have long known that chronic exposure to excess salt in the bloodstream is hard on the kidneys themselves, potentially leading to kidney stones and, in some cases, renal failure.

Fatigue and obesity

Even in the short run, a sodium-loaded meal has consequences. Ever feel tired or have a headache after eating a bag of chips? “That could be dehydration,” says John Hibbs, ND, a professor at Bastyr Center for Natural Health in Seattle. “You eat a lot of salt and it goes into your bloodstream where it pulls fluid away from the organs, making you tired.”

Salt also makes you thirsty (often for sugary, calorie-laden drinks), which has many health officials worried that salt could be contributing to the growing childhood obesity epidemic. Cutting salt consumption in half would help kids skip about 2.3 sweet drinks each week, avoiding 61 grams of sugar and 250 empty calories, according to British researchers.

“When we create an entire generation of kids whose taste buds have been trained to crave lots of salt, we create a generation that will have a host of adverse health problems in young and middle-aged adulthood,” says Bibbins-Domingo.

The first step is to take a good look at what you eat during a typical week. If pepperoni pizza, french fries, canned soup, grilled cheese, crackers, or mac-and-cheese frequent the list, it’s time to cut back in creative ways. Research shows that after 8 to 12 weeks of cutting sodium intake, your taste buds will begin to prefer less salt. ■



Get the salt out—without sacrificing flavor. For ten of our favorite low-sodium recipes, go to deliciousliving.com/sept10.