

TAKEN WITH A GRAIN OF SALT

High-sodium products may be poised to become the next target on consumer hit lists

BY CLIONA REEVES

This is unlikely to be the first time you've read that excessive sodium in your diet is not a healthy situation. But you may be surprised to learn that high sodium levels could become the next major consumer food concern, just as trans fat has been.

"High levels of sodium in the diet could be the next major and preventable environmental vector of disease in Canadian society," says Dr. Bill Bettger, associate professor in the University of Guelph's department of Human Health and Nutritional Sciences. "A major problem is that so much sodium is hiding in plain sight. Only about 30 per cent of the sodium we consume we add in cooking or at the table. The other 70 per cent is already in a wide range of processed foods, from meat products, to bakery goods, to soups and stews, and even to artificial sweeteners. Sodium also occurs naturally in fruits and vegetables," he says. "Health Canada's current Daily Value amount for sodium per day is 2,400 mg, where a low-salt diet should not exceed 1,500 mg. But just try doing that. While precise calculations are difficult, it's estimated that most of us routinely consume two, three or more times the recommended limit, and are well into the toxic range."

THE QUIET CRISIS

The connection between high sodium consumption and hypertension (high blood pressure) has long been known, but the issue no longer appears to be as high profile as it once was. However, high sodium levels could now be a risk for not only those with hypertension, but among the general population. "Hypertension is a known risk factor for cardiovascular disease and heart attack, major killers in the Western world," says Bettger. "But there is also a connection between high sodium levels and osteoporosis, possibly due to increased excretion of calcium in the urine. There is also a connection between sodium and cancer, due to damage to gastric mucosa. The connection between sodium and diabetes is due to the way sodium can increase (i.e. worsen) insulin resistance and glucose intolerance, independently of high blood pressure. A newer area of research is the connection between sodium and mood or neurological functioning.

It has not been linked with depression, but does seem to have a harmful effect on learning ability and development," he says. "However, it cannot be overstressed that everyone responds differently to different stimuli, and much more work is needed to investigate this connection."

These differences in salt sensitivity may begin in the womb. "High levels of sodium consumption during pregnancy seem to result in a higher sensitivity to the effects of sodium, even if the offspring is then restricted to a low-sodium diet for life," says Bettger. "We have a serious issue on our hands and must start dealing with it now, especially in the area of processed foods, where much of the sodium we consume is found."

KEEPING A LOW PROFILE

So why isn't the sodium story as high profile as, say, the low-carb craze or the low-cholesterol stories? "The groundswell of attention is still building, and the consumer has not yet been saturated by media coverage," says Carol Culhane, owner/operator of International Focus Group Ltd., a business development consulting company based in Toronto.

And yet our relationship with salt is long-standing and profound. While all our body fluids contain salt (sodium chloride), we first used salt thousands of years ago as a preservative. "Most consumers have no idea just how much sodium they are consuming, or how much is too much," says Kathryn Cooper, vice-president of the GFTC's Training Services and Strategic Projects. "Sodium levels are hard to gauge. So many of us are eating several times Health Canada's recommended maximum without even knowing it. As consumers become more conscious of sodium levels in products they routinely buy, they will put more and more pressure on the food industry to develop lower-salt alternatives."

FROM CRISIS TO OPPORTUNITY

In some countries, pressure is already on producers to lower the sodium content of their goods. "In the U.K., the government persuaded all sectors of the food processing industry to reformulate to lower sodium levels, and most have done so – all without legislation," says Culhane. "The U.K. goal is to

reduce per capita daily salt consumption from nine grams per day to six grams per day, through product reformulation. Government and industry together are working collaboratively to provide suitable alternatives. We need to start doing the same here before mandated to do so.”

Of course, it's not always so simple to remove the sodium from a product. “Sodium not only provides flavour to products, but also has important functions to perform as a processing aid,” says John Michaelides, the GFTC's director of Technical Services. “Sodium provides texture and structure; it's acted for thousands of years as a preservative. In fermentation, salt is essential in the control of the process. It strengthens the gluten that gives baked goods their structure. It improves the tenderness of meat by improving the binding of water with proteins. It stabilizes emulsions, enhances colour, binds water and enhances other flavours. Sweet products, for instance, contain some salt to enhance the sweetness. This is a long list of functions to have to replace, and the job of replacing sodium is not an easy one.”

There are options, however. Many ingredient suppliers have a range of sodium-substitute products and are eager to explore those options with their clients. Development can be a complicated process, but the payoff in happy, healthy customers and an improvement in the health of the general population is an investment in the future.

“Companies which make the effort to develop low-sodi-

um or reduced-sodium products can also pursue the possibility of putting a nutrient content or health claim on their product label, which can help attract health-conscious consumers,” says Judy Stuart, the GFTC's senior applied research scientist. “There are strict requirements for sodium levels which a product must comply with before the claims can be used, and use of any of them triggers the need for Nutrition Facts panel. But as more and more people become conscious of the amount of salt they consume, both the claims and the Nutrition Facts panels can be excellent marketing tools to differentiate your product from the higher-sodium competition.”

The final responsibility for vigilance, however, rests with the individual consumer, who is often thoroughly confused when keeping track of fat, cholesterol, fibre, vitamin and now sodium levels in the foods they purchase. Even a product marketed as healthy, due to its lower fat content, may contain more sodium than the regular product. The more food processors can consider all the angles, and produce products that are healthful from multiple perspectives, the more likely consumers will remain loyal purchasers of those products. “The crisis is coming,” says Bettger. “It's just a question of when, and whether we have the foresight to take action now.” [FC]

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