

Sugar, Not Salt, May Be at Fault for Hypertension

Lara C. Pullen, PhD | December 11, 2014

A reduction in the consumption of added sugars and, in particular, processed foods may translate into decreased rates of hypertension as well as decreased cardiometabolic disease. In particular, a new review article suggests that sugar, not salt, appears to contribute to the majority of the hypertension risk associated with processed food.

James J. DiNicolantonio, PharmD, from Saint Luke's Mid America Heart Institute in Kansas City, Missouri, and Sean C. Lucan, MD, MPH, from Albert Einstein College of Medicine in Bronx, New York, published their review of epidemiological and experimental studies in *Open Heart*. The authors conclude that high-sugar diets may make a significant contribution to cardiometabolic risk. They also suggest that future dietary guidelines recommend that highly refined processed foods be replaced by natural whole foods.

"It is a little bit frightening that we have been focusing on salt for so long," Richard Krasuski, MD, from the Cleveland Clinic in Ohio, told *Medscape Medical News*. Dr Krasuski was not affiliated with the research.

Dr Krasuski explained that the review article summarized the results from two types of studies: epidemiological studies and small interventional studies. Although both types of studies have limitations, together they make a rather strong case.

"[W]hen you do these types of epidemiological studies, you are not really controlling for confounding factors." Thus, Dr Krasuski described the epidemiological studies as primarily hypothesis-generating.

In contrast, the small interventional studies test a hypothesis through manipulation of a single factor, intensely, over a short period of time. In this type of study, the limitation is that "we don't know if these acute effects transmit into long-lasting effects," he explained.

The bottom line, Dr Krasuski said, is that although the science is not perfect, it is, in its entirety, good. He cautioned readers, however, to understand the research context when reading the conclusions.

The conclusion that sugar represents a greater danger to the heart than salt, Dr Krasuski said, was an "eye opener." He acknowledged, though, that he should have anticipated it. He and other cardiologists have noticed that the recommendations to increasingly lower salt intake have not resulted in the expected positive cardiovascular outcomes.

The article by Dr DiNicolantonio and Dr Lucan will likely be controversial because it contradicts current assumptions about the relationship between diet and cardiovascular disease. "The controversy here is whether it is the salt or the sugar.... It probably is, at least partially, if not more, related to sugar consumption," Dr Krasuski concluded after reading the paper.

Nevertheless, the bottom line of the article's recommendation should be familiar and comfortable to most physicians: Eat less processed food.

When asked about what he tells his patients, Dr Krasuski stated that his recommendations are consistent with those of the authors of the current article. He recommends a diet that is full of whole grains and fruits and vegetables, and he also recommends that his patients try to avoid processed foods.

Dr Krasuski added that regular exercise, not smoking, and maintaining weight at a level close to target are also all important for cardiovascular health, although these recommendations are beyond the scope of the current review.

Dr DiNicolantano, Dr Lucan, and Dr Krasuski have disclosed no relevant financial relationships.

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