

## Dietary Sodium Restriction: Still Searching for the Grains of Truth



To the Editor:

We read with great interest the review “Dietary Sodium Restriction: Take It With a Grain of Salt,” by DiNicolantonio et al.<sup>1</sup> The authors point out the paucity of data linking dietary sodium restriction to reductions in cardiovascular events and provide an excellent and broad-based overview of many important studies. However, we want to raise several issues for comment.

The authors conclude that “there is sound evidence that a low sodium diet leads to a worse cardiovascular prognosis in patients with systolic congestive heart failure....” This statement is based on several studies performed by a single Italian research group, in which large loop diuretic doses (100-500 mg/d furosemide equivalent) were continued for months in outpatient participants regardless of clinical status. For reference, the mean furosemide equivalent dose at hospital discharge in large North American and European studies is 50 to 80 mg/d,<sup>2,3</sup> and discharge furosemide doses of  $\geq 240$  mg/d predict higher mortality even in the very ill heart failure population in the Evaluation Study of Congestive Heart Failure and Pulmonary Artery Catheterization Effectiveness study.<sup>4</sup> In this setting, it seems difficult to conclude that low-sodium diets “caused increased mortality and heart failure hospitalizations” rather than the known neurohormonal and renal effects of high-dose diuretics in the setting of volume depletion.

Abundant data from animal models and humans suggest that at least some persons would benefit greatly from dietary

sodium restriction. DiNicolantonio et al<sup>1</sup> correctly characterize sodium consumption as physiologically regulated and challenging to modulate. However, it is not impossible to do so in populations, as evidenced by successful policy-driven sodium intake reductions in Finland and the United Kingdom.<sup>5</sup> We strongly believe that additional research, particularly in special populations such as those with heart failure, is needed before dismissing such efforts as potentially “counterproductive...and risky.”

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