

Tulane awarded \$3.4 million to study cardiovascular benefits of low-salt diets

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Tulane cardiovascular disease epidemiologist Katherine Mills, PhD, is the lead researcher on the grant. (Photo by Paula Burch-Celentano)

Too much salt in your diet increases your risk for high blood pressure, but does it also affect the heart and critical blood vessels throughout the body? According to a Tulane researcher, not enough studies are being done to find out.

The National Institutes of Health has awarded a \$3.4 million grant to Tulane University cardiovascular disease epidemiologist Katherine T. Mills, PhD, to conduct a clinical trial to study the direct impacts of dietary sodium on cardiac and vascular structure and function.

“Americans consume over 50% more salt in their diets than recommended on a daily basis,” said Mills, associate professor of epidemiology at Tulane University School of Public Health and Tropical Medicine. “There's been much research showing that high dietary sodium is related to risk of high blood pressure and resulting cardiovascular disease, but there is increasing evidence that there may be direct negative effects on the heart and vasculature as well.”

The study will recruit 256 African American participants with either elevated blood pressure or hypertension from the greater New Orleans area, Mills said. African Americans are the focus of this study due to a disproportionate burden of cardiovascular disease and underrepresentation in previous clinical studies.

The study will place some participants on a low-salt diet while others continue eating their usual diet. During the trial, Tulane researchers will collect MRIs and ultrasounds from the participants to reveal cardiac and vascular structure and function. Participants in the low-salt diet arm of the trial will learn how to keep track of how much salt they eat, different strategies for eating low-salt meals when they're out with their friends, how to prepare low-salt food at home and how to add flavor to food using spices.

Mills said after one year, she and her team expect the low-salt group to have better cardiac structure and function than the group assigned to their regular diet.

“During the study, we'll compare MRI and ultrasound measurements to examine heart and vasculature structure and function to see if participants eating a low-salt diet have improvements in these areas compared to those eating a regular diet,” Mills said.

“Findings from the trial will allow us to further understand the ways in which dietary sodium impacts the cardiovascular system and can provide more evidence of the importance of reducing how much salt we eat.”