

# Study results in dietary guideline of bioactive food compound

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An apple a day can keep the doctor away, according to an international study spearheaded by a University of Alabama faculty member.

Dr. Kristi Crowe-White, associate professor and chair of the department of human nutrition and hospitality management at UA and registered dietician, led an international workgroup to develop the dietary guideline for a bioactive food compound known as flavan-3-ols. The dietary recommendation is the first for a compound not related to correcting deficiencies but to the promotion of health and wellness.

"Flavan-3-ols, abundantly present in tea, apples, pears, berries, and chocolate or cocoa products, have cardiovascular and metabolic health benefits," said Crowe-White. "Increasing consumption to 400 to 600 milligrams of dietary flavan-3-ols per day may help improve blood pressure, cholesterol and blood sugar. Practically speaking, a combination of these foods allows for intake in the recommended range to optimize cardiometabolic health."

Experts from around the world worked together to draft the evidence-based flavan-3-ols guidelines. Crowe-White was joined by UA doctoral student Katelyn Senkus; Dr. Levi Evans, of the U.S. Department of Agriculture; Dr. Gunter Kuhnle, of the University of Reading in Reading, England; Dr. Dragan Milenkovic, of the University of California Davis; Dr. Kim Stote, of the State University of New York; Dr. Taylor Wallace, of Think Healthy Group and George Mason University; and Dr. Deepa Handu, of the Academy of Nutrition and Dietetics.

This guideline is based on data from 157 randomized controlled trials and 15 cohort studies. The data clearly show that consuming enough flavan-3-ols can protect the heart and improve [blood pressure](#), cholesterol and blood sugar, albeit at varying degrees among individuals.

It should be noted that this is a food-based guideline and not a recommendation for flavan-3-ol supplements as flavan-3-ol supplements can cause [liver damage](#) and gastrointestinal distress when taken in high

doses.

Flavan-3-ols are also found in red wine and dark chocolate. Unfortunately, the risk associated with the consumption of alcohol and high fat and sugary foods may outweigh the benefits.

The guidelines have been presented to the nutrition science community at a meeting of the Academy of Nutrition and Dietetics in October. The next stage will be to approach clinicians, public health entities and the [food industry](#) to bring the data to bear on local policies and practices.

Provided by University of Alabama in Tuscaloosa

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