

Muscadine wine shows promise in improving aging skin

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The study finds wine menus with robust descriptions and pairing suggestions fare better than vintages and prices alone. Credit: Pixabay/CC0 Public Domain

Could muscadine wine help perk up sagging skin? According to a new



study, women who drank two glasses of dealcoholized muscadine wine daily showed significant improvements in the elasticity and water retention of their skin compared with those who consumed a placebo.

The study is the first time scientists have studied the impacts of nonalcoholic <u>wine</u> consumption on skin health in a <u>randomized clinical</u> <u>trial</u>. Researchers attribute the beneficial effects to chemical compounds called polyphenols that naturally occur in many plants.

"Muscadine grapes have been found to have a unique polyphenolic profile in comparison to other red wine varieties," said Lindsey Christman, Ph.D., who conducted the research with Liwei Gu, Ph.D., professor of food chemistry and functional food at the University of Florida. "Our study suggests that muscadine wine polyphenols have potential to improve skin conditions, specifically elasticity and transepidermal water loss, in middle aged and older women."

Christman will present the findings at <u>NUTRITION 2023</u>, the flagship meeting of the American Society for Nutrition held July 22–25 in Boston.

Muscadine grapes are native to the Southeastern United States and are commonly used to make wine. Previous clinical trials have suggested that polyphenols found in muscadine wine including anthocyanins, quercetin, and ellagic acid can help to decrease inflammation and oxidative stress.

For the study, researchers recruited 17 women age 40–67 and randomly assigned them to drink either dealcoholized wine or a placebo beverage that looked and tasted similar but did not contain polyphenols. Participants consumed 300 milliliters or about 10 ounces (the equivalent of two glasses of wine) of their assigned beverage daily for six weeks, then took a three-week break before switching to the opposite beverage



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Researchers measured participants' skin conditions and markers of inflammation and oxidative stress at the start of the study and at the end of each six-week period. They found that drinking muscadine wine significantly improved skin elasticity (a loss of elasticity is what causes skin to sag more as we age). In addition, the wine was associated with a decrease in water loss at the skin surface, a measurement that indicates the skin is providing a more effective barrier against damage.

The researchers did not see any significant difference in the amount of wrinkles on the skin. Participants showed improvements in skin smoothness and less evidence of inflammation and oxidative stress compared to baseline, but there was not a significant difference in these factors between dealcoholized muscadine wine and the placebo.

"This cross-over study demonstrated that six weeks of dealcoholized muscadine wine consumption resulted in improvement of certain skin parameters associated with aging, such as elasticity on the forearm and barrier function of the skin on the face, when compared to baseline and placebo," said Christman. "This is likely due to decreases in inflammation and oxidative stress."

Since the trial involved only 17 participants, repeating the study with a larger and more diverse group of people would help to confirm and strengthen the findings. In addition, most commercially-available muscadine wine contains alcohol, and researchers cautioned that drinking wine with alcohol may produce a different result.

"We used dealcoholized muscadine wine because we were interested in the effect of the bioactive compounds in wine, specifically the polyphenols, on skin health," said Christman. "Alcohol would add another variable to the study that may cause the effects to be different.



In addition, the dealcoholization process may alter the chemical composition."

More information: Christman will present this research at 12:45 p.m. EDT on Monday, July 24, during the Aging and Chronic Disease Poster Session in the Hynes Convention Center Hall C (<u>abstract</u>; <u>presentation</u> <u>details</u>).

Provided by American Society for Nutrition

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