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Grape-enriched diet supports eye health

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New research presented this week at the Association for Research in Vision and Ophthalmology conference in Orlando, Florida suggests that regular grape consumption may play a role in eye health by protecting the retina from deterioration. Specifically, a grape-enriched diet resulted in a protective effect on retinal structure and function.

The retina is the part of the eye that contains the cells that respond to light, known as photoreceptors. There are two types of photoreceptors: rods and cones. Retinal degenerative diseases affect over 5 million people in the U.S., and can cause blindness due to photoreceptor cell death.

The study was conducted by a research team at the University of Miami, Bascom Palmer Eye Institute and investigated whether a diet supplemented with grapes could protect the photoreceptors in mice with retinal degeneration. Mice were either fed a grape-supplemented diet corresponding to 3 servings of grapes per day for humans or one of two control diets.

The results showed that retinal function was significantly protected in the mice consuming the grape-enriched diet. The grape-consuming group had three-fold higher rod and cone photoreceptor responses compared with those on the control diets. They also exhibited thicker retinas. Grape consumption also protected retinal function in an oxidative stress model of macular degeneration. Further analysis revealed that the grape diet resulted in lower levels of inflammatory proteins and higher amounts of protective proteins in the retinas.

"The grape-enriched diet provided substantial protection of retinal function which is very exciting," said Dr. Abigail Hackam, lead investigator of the study. "And it appears that grapes may work in multiple ways to promote eye health from signaling changes at the cellular level to directly countering oxidative stress."

Provided by California Table Grape Commission

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