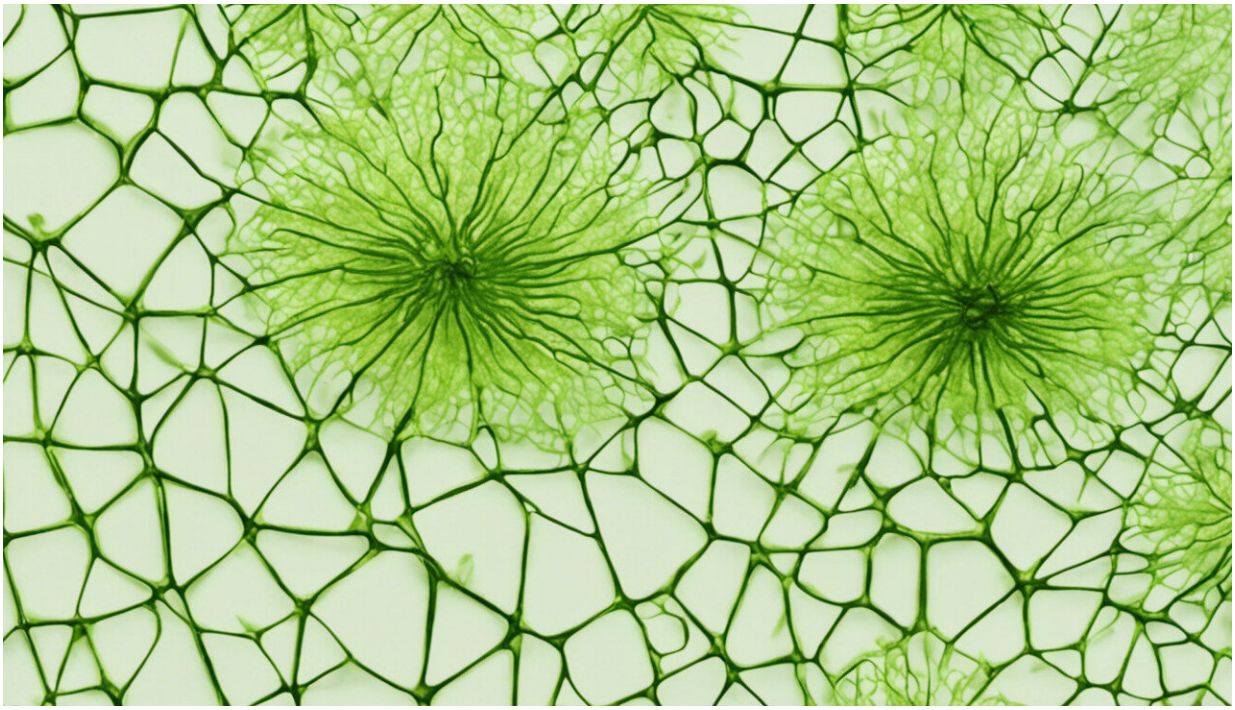
New evidence that green tea may help fight glaucoma and other eye diseases

February 18 2010



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Scientists have confirmed that the healthful substances found in green tea — renowned for their powerful antioxidant and disease-fighting properties — do penetrate into tissues of the eye. Their new report, the first documenting how the lens, retina, and other eye tissues absorb these substances, raises the possibility that green tea may protect against

glaucoma and other common eye diseases. It appears in ACS's *Journal of Agricultural and Food Chemistry*.

Chi Pui Pang and colleagues point out that so-called green tea "catechins" have been among a number of antioxidants thought capable of protecting the eye. Those include vitamin C, vitamin E, lutein, and zeaxanthin. Until now, however, nobody knew if the catechins in green tea actually passed from the stomach and gastrointestinal tract into the tissues of the eye.

Pang and his colleagues resolved that uncertainty in experiments with laboratory rats that drank green tea. Analysis of eye tissues showed beyond a doubt that eye structures absorbed significant amounts of individual catechins. The retina, for example, absorbed the highest levels of gallocatechin, while the aqueous humor tended to absorb epigallocatechin. The effects of green tea catechins in reducing harmful oxidative stress in the eye lasted for up to 20 hours. "Our results indicate that green tea consumption could benefit the eye against oxidative stress," the report concludes.

More information: "Green Tea Catechins and Their Oxidative Protection in the Rat Eye", *Journal of Agricultural and Food Chemistry*.

Provided by American Chemical Society