

Concerns about the safety of certain 'healthful' plant-based antioxidants

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Scientists are calling for more research on the possibility that some supposedly healthful plant-based antioxidants -- including those renowned for their apparent ability to prevent cancer -- may actually aggravate or even cause cancer in some individuals. Their recommendation follows a study in which two such antioxidants -- quercetin and ferulic acid -- appeared to aggravate kidney cancer in severely diabetic laboratory rats. The study appears in ACS' *Journal of Agricultural and Food Chemistry*.

Kuan-Chou Chen, Robert Peng, and colleagues note that vegetables, fruits, and other plant-based foods are rich in [antioxidants](#) that appear to fight cancer, diabetes, [heart disease](#), and other disorders. Among those antioxidants is quercetin, especially abundant in onions and black tea, and ferulic acid, found in corn, tomatoes, and rice bran.

Both also are ingredients in certain herbal remedies and dietary supplements. But questions remain about the safety and effectiveness of some antioxidants, with research suggesting that quercetin could contribute to the development of cancer, the scientists note.

They found that diabetic laboratory rats fed either quercetin or ferulic acid developed more advanced forms of kidney cancer, and concluded the two antioxidants appear to aggravate or possibly cause kidney cancer. "Some researchers believe that quercetin should not be used by healthy people for prevention until it can be shown that quercetin does not itself cause cancer," the report states. "In this study we report that quercetin

aggravated, at least, if not directly caused, [kidney cancer](#) in rats," it adds, suggesting that health agencies like the U. S. [Food and Drug Administration](#) should reevaluate the safety of plant-based antioxidants.

More information: "Quercetin and Ferulic Acid Aggravate Renal Carcinoma in Long-Term Diabetic Victims", *Journal of Agricultural and Food Chemistry*.

Provided by American Chemical Society

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