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[American Chemical Society](#)

Green Tea May Fight Allergies

Allergy sufferers may want to add green tea to their sniffle-fighting arsenal. New evidence suggests that drinking the popular brew may provide some relief.

Researchers in Japan identified a compound in green tea that, in laboratory tests, blocks a key cell receptor involved in producing an allergic response. The compound, methylated epigallocatechin gallate (EGCG), may have a similar effect in humans, they say. Their study will be described in the Oct. 9 print issue of the *Journal of Agricultural and Food Chemistry*, a peer-reviewed publication of the American Chemical Society, the world's largest scientific society.

Although similar compounds in green tea have previously been shown to be anti-allergenic, this particular compound appears to be the most potent, the researchers say.

"Green tea appears to be a promising source for effective anti-allergenic agents," says Hirofumi Tachibana, the study's chief investigator and an associate professor of chemistry at Kyushu University in Fukuoka, Japan. "If you have allergies, you should consider drinking it."

For years, people have been drinking tea to fight the sneezing, coughing and watery eyes that are characteristic of colds and allergies. The new study adds to a small but growing body of scientific evidence from both cell and animal studies that it may actually work, particularly green tea.

No one has proven, however, that anti-allergenic compounds found thus far have an actual therapeutic effect in humans who ingest green tea. If it works, the brew may be useful against a wide range of allergens, including pollen, dust, pet dander and certain chemicals, Tachibana says. Further studies are needed.

EGCG is one of the most abundant and biologically active antioxidants found in tea. It is believed to be responsible for tea's beneficial health effects. The compound is found in higher concentrations in green tea, the least processed of teas, than in black and oolong varieties.

Previous studies have shown that EGCG fights allergic reactions in rodents that were given the compound orally, but researchers are just beginning to understand how it might work.

It now appears that the compound works by blocking the production of histamine and immunoglobulin E (IgE), two compounds in the body that are chiefly involved in triggering and sustaining allergic reactions, Tachibana says.

The current study shows, for the first time, that a methylated form of EGCG can block the IgE receptor, which is a key receptor involved in an allergic response. The effect was demonstrated using human basophils, which are blood cells that release histamine.

Methylated EGCG appears to elicit a stronger anti-allergenic response than normal EGCG, making it the strongest anti-allergen compound found in tea, the researchers say.

Although promising against allergies, no one knows how much green tea is needed to have a therapeutic effect, or which green tea varieties work best, the researchers add. They are currently looking for additional anti-allergenic compounds in the tea.

Green tea has been called the second-most consumed beverage in the world, behind water. It is very popular in Japan, and has a growing following in the United States, where black tea is favored. Tachibana's study adds to an expanding list of the potential health benefits offered by green tea. In addition to allergies, it is reported to fight cancer, cardiovascular disease, arthritis and tooth decay.

Approximately 50 million people in this country suffer from some type of allergy. Until studies are done to determine whether green tea is actually beneficial to humans with allergies, experts urge consumers to see their doctor for the best advise on treatment options. Among those options: minimizing or avoiding suspected allergens (i.e. dust, pollen, certain foods). Exercise and proper diets are also thought to alleviate the effect of allergies.

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Dr. Tachibana's associates in this study were Yoshinori Fujimura and Koji Yamada of Kyushu University, Mari Maeda-Yamamoto of the National Research Institute of Vegetables and Tea Sciences, and Toshio Miyase and Mitsuaki Sano of the University of Shizuoka.

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— Mark T. Sampson

The online version of the research paper cited above was initially published Aug. 30 on the journal's Web site. Journalists can arrange access to this site by sending an e-mail to newsroom@acs.org or calling the contact person for this release.

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