

## Green tea may protect against colon cancer

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Fri Dec 7, 2007 1:27pm EST

By Megan Rauscher

NEW YORK (Reuters Health) - An extract of green tea wards off colorectal cancer, animal experiments show.

According to research reported at the Sixth International Conference on Frontiers in Cancer Prevention, sponsored by the American Association for Cancer Research, a standardized green tea polyphenol preparation (Polyphenon E) limits the growth of colorectal tumors in rats treated with a substance that causes the cancer.

"Our findings show that rats fed a diet containing Polyphenon E are less than half as likely to develop colon cancer," Dr. Hang Xiao, from the Ernest Mario School of Pharmacy at Rutgers University, Piscataway, New Jersey, noted in a statement.

These results are consistent with previously published results, which showed that green tea consumption was associated with lower colon cancer rates in Shanghai, China, he also noted.

In the study, Xiao and colleagues injected rats with azoxymethane, a chemical known to produce colorectal tumors that share many characteristics with colorectal cancer in humans. Then they fed the animals a high-fat Western-style diet with or without Polyphenon E for 34 weeks. The amount of Polyphenon the animals took in was roughly equal to about four to six cups of green tea per day.

Polyphenon E decreased the total number of tumors per rat and decreased tumor size, compared with control rats that were not given Polyphenon E, Xiao told the conference.

"In the control group," he said, "67 percent of rats developed malignant tumors while in the treated group only 27 percent of rats had malignant tumors. Most important, tea polyphenols decreased the number of malignant tumors per rat by 80 percent compared to the control group."

When the researchers analyzed blood and colon tissue samples, they found a "considerable amount of tea polyphenols in those samples in treated animals, and those levels of tea polyphenols were comparable to the human situation after ingestion of tea leaves or tea beverage," Xiao noted.

The researchers believe these findings will pave the way for clinical trials with green tea polyphenols in humans.

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