

## **Green Tea for Long Life?**

# Japanese Study Shows Link Between Green Tea Drinkers and Lower Death Risk

By Daniel J. DeNoon WebMD Medical News Reviewed by Louise Chang, MD

Sept. 12, 2006 -- People who drink at least a pint of green tea each day have a lower risk of death, a Japanese study shows.

The lower overall death risk among green tea drinkers appears to be due to a lower risk of death from heart disease. And the benefit of green tea is especially pronounced in women, find Shinichi Kuriyama, MD, PhD, Tohoku University School of Public Policy in Sendai, Japan, and colleagues.

Green tea is a very popular drink in Japan. But some people drink more than others do. Women who drink five or more 3.4-ounce cups of green tea every day cut their risk of heart disease by 31% compared with women who drink one or fewer 3.4-ounce cups. Men who drink this much green tea cut their heart disease risk by 22%.

"Green tea may prolong your life through reducing heart disease and stroke," Kuriyama tells WebMD. "Our findings might explain the differences in mortality profile between Japan and the United States. The Japanese age-adjusted rate of mortality due to [heart disease and stroke] is about 30% lower than that of the United States."

The findings appear in the Sept. 13 issue of *The Journal of the American Medical Association*.

### **Green Tea: Might Americans Benefit?**

Kuriyama's study is based on data collected since 1994 among more than 40,000 healthy Japanese people aged 40 to 79. More than 86% of the study participants remained in the study for 11 years. Participants filled out detailed questionnaires about their daily diets and health.

The study was conducted with meticulous care. But Kuriyama is quick to point out that this kind of study can't prove green tea has any beneficial effect. Proof comes only from a clinical trial in which some people get green tea and others do not. The Kuriyama study shows only that there is a link between green tea and lower death risk -- not that green tea causes lower death risk.

Alice H. Lichtenstein, DSc, director of the cardiovascular nutrition research program at Tufts University's Jean Mayer USDA Human Nutrition Research Center on Aging, is underwhelmed by the Kuriyama study.

"This is association, not causation," Lichtenstein tells WebMD. "The Japanese are so different from us in terms of diet and lifestyle. The data -- at this point -- do not support the hypothesis that adding green tea to your diet will significantly reduce your risk of heart disease or stroke. But stay tuned."

Kuriyama points to a Dutch study that suggests Westerners may benefit from green tea. That's also the opinion of green tea researcher Tsung O. Cheng, MD, of George Washington University Medical Center.

"I would think that the effect of green tea is worldwide," Cheng tells WebMD. "There is no reason why it should be beneficial in the Eastern world and not in the West. I hope that Westerners will begin to drink more green tea, too. A person would drink two or more 8-ounce cups per day for maximum benefit."

#### More Benefits for Women?

Why do women seem to get more of a benefit from green tea than men do?

Kuriyama and colleagues note that the men in their study smoked more cigarettes than women did. And smokers, overall, got less of a benefit from green tea than nonsmokers.

But Cheng says it's related to estrogen. Green tea studies consistently show a greater effect for women than for men, he says. He suggests that green tea's active ingredients may interact with the female sex hormone estrogen to boost a heart-protective effect.

#### **Green Tea: No Effect on Cancer**

Kuriyama and colleagues found no evidence that green tea protects against cancer death.

Kuriyama says that was a surprise to him, as "abundant" evidence from animal and test-tube studies suggests that green tea ingredients fight cancer.

But he notes that the current findings are in line with other, smaller studies that find green tea has no effect on several specific kinds of cancer.

### **Green Tea Warnings**

While it's yet to be proved that green tea really will protect you against early death, there's a lot of evidence that green tea is safe -- with two major exceptions.

Cheng warns that green tea contains vitamin K. Vitamin K affects blood clotting. People taking the blood-thinning drug Coumadin, he says, should not start drinking more green tea.

And Kuriyama warns against drinking your green tea piping hot.

"Drinking green tea at high temperature may be associated with increased risk of esophageal cancer," he says. "Therefore, I recommend that green tea should be consumed at moderate or low temperature."

What's the bottom line? For Lichtenstein, the message is to go ahead and drink green tea if you like it. But to prevent heart disease and stroke, what really works is a healthy diet and daily exercise.

Neither Kuriyama nor Cheng would disagree with that. But they both recommend green tea, too.

"I personally drink two to three cups of green tea per day," Kuriyama says. "On the basis of our study results, I would like to recommend the drinking of green tea to my friends and my family because our findings are the best evidence at present."

Cheng says green tea is much better for you than oolong tea or black tea, which lose some healthy properties during fermentation. But that's not why he drinks it.

"I drink two cups a day because I like it," Cheng says.

SOURCES: Kuriyama, S. *The Journal of the American Medical Association*, Sept. 13, 2006; vol 296: pp 1255-1265. Shinichi Kuriyama, MD, PhD, Tohoku University School of Public Policy, Sendai, Japan (interviewed via email). Alice H. Lichtenstein, DSc, professor, nutrition science and policy, Tufts University, Boston; director, Cardiovascular Nutrition Research Program, Jean Mayer USDA Human Nutrition Research Center on Aging, Boston. Tsung O. Cheng, MD, professor of medicine, George Washington University Medical Center, Washington. © 2006 WebMD, Inc. All rights reserved.

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