

Green tea shows benefits for elderly with metabolic syndrome

By Stephen Daniells, 22-Aug-2012

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Three cups of green tea per day may help elderly people with metabolic syndrome lose weight and trim their waistlines, suggests a new study from Brazil.

Scientists from the Pontifical Catholic University of Rio Grande do Sul (PUCRS) report that green tea consumption was linked to an average loss of 1.2 kg over a 60 day period and a reduction in waist circumference of about 2 cm.

The potential benefits of green tea may be related to the ability of the polyphenols in the beverage to increase thermogenesis or via an alternate mechanism of appetite suppression, wrote the researchers in *The Journal of Nutrition, Health & Aging*.

Green tea

The study adds to a compelling body of science supporting the potential weight management potential of green tea.

The majority of science on tea has looked at green tea, with benefits reported for reducing the risk of Alzheimer's and certain cancers, improving cardiovascular and oral health.

Green tea contains between 30 and 40 per cent of water-extractable polyphenols, while black tea (green tea that has been oxidized by fermentation) contains between 3 and 10 per cent. Oolong tea is semi-fermented tea and is somewhere between green and black tea. The four primary polyphenols found in fresh tealeaves are epigallocatechin gallate (EGCG), epigallocatechin (EGC), epicatechin gallate (ECG), and epicatechin (EC).

The new study involved elderly people with metabolic syndrome. MetS is refers to a cluster of conditions including high blood pressure, raised blood sugar level, excess body fat around the waist or low HDL (the good cholesterol) and increased blood triglycerides – all of which are known to significantly increase the risk for heart disease, stroke and diabetes.

Study details

Forty-five elderly people with MetS were randomly assigned to one of two groups: The first group was required to consume three cups of green tea per day made from 1.0 g sachets, and the other group was instructed not to make changes to their lifestyle.

After 60 days of intervention, the researchers report that the green tea group displayed "statistically significant weight loss" from an average of 71.5 kg at the start of the study to 70.3 kg at the end. No significant changes were observed in the control group.

In addition, both groups displayed significant decreases in BMI and waist circumference, but the decreases were greater in the green tea group, said the researchers.

"Considering that individuals with MetS are in a chronic state of 'metabolic chaos,' the task of bringing these biochemical parameters back to normal is very complex, because it involves the interaction of hormonal, genetic, and inflammatory factors and the variable age (aging)," they wrote.

"However, to confirm the hypothesis that green tea acts in the suppression of appetite and increase in satiety, further investigations would be necessary."

Source: *The Journal of Nutrition, Health & Aging*

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"Effect of green tea (Camellia sinensis) consumption on the components of metabolic syndrome in elderly"

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