

White tea -- the solution to the obesity epidemic?

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Possible anti-obesity effects of white tea have been demonstrated in a series of experiments on human fat cells (adipocytes). Researchers writing in BioMed Central's open access journal *Nutrition and Metabolism* have shown that an extract of the herbal brew effectively inhibits the generation of new adipocytes and stimulates fat mobilization from mature fat cells.

Marc Winnefeld led a team of researchers from Beiersdorf AG, Germany, who studied the biological effects of an extract of white tea - the least processed version of the tea plant *Camellia sinensis*. He said, "In the industrialized countries, the rising incidence of obesity-associated disorders including cardiovascular diseases and diabetes constitutes a growing problem. We've shown that white tea may be an ideal natural source of slimming substances".

After treating lab-cultured human pre-adipocytes with the tea extract, the authors found that fat incorporation during the genesis of new adipocytes was reduced. According to Winnefeld, "The extract solution induced a decrease in the expression of genes associated with the growth of new [fat cells](#), while also prompting existing adipocytes to break down the fat they contain".

White tea is made from the buds and first leaves of the plant used to make [green tea](#) and the [black tea](#) most commonly drunk in Western countries. It is less processed than the other teas and contains more of the ingredients thought to be active on human cells, such as

methylxanthines (like caffeine) and epigallocatechin-3-gallate (EGCG) - which the authors believe to be responsible for many of the anti-adipogenic effects demonstrated in their study.

More information: White Tea extract induces lipolytic activity and inhibits adipogenesis in human subcutaneous (pre)-adipocytes, Jörn Söhle, Anja Knott, Ursula Holtzmann, Ralf Siegner, Elke Grönniger, Andreas Schepky, Stefan Gallinat, Horst Wenck, Franz Stäb and Marc Winnefeld, *Nutrition & Metabolism* (in press), www.nutritionandmetabolism.com/

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