

# Peppers may increase energy expenditure in people trying to lose weight

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Imagine your delight while enjoying your favorite Mexican food - perhaps a fully loaded bean burrito topped with an ample supply of thinly sliced jalepeno peppers. What happens when you bite into a few more peppers than you bargained for? Does this thought conjure up the thought of a little heat? Perhaps even a bit of sweat on the brow?

Indeed, food scientists can tell you that [hot peppers](#) contain a substance called capsaicin that not only adds spice to our foods but can actually cause your body to heat up. They hypothesize that plants evolved to contain capsaicin because it protected them from being eaten by insects and other pesky predators. On the contrary, cuisines worldwide rely on capsaicin-packing peppers to add pungency and zing to many traditional foods, and "pepperheads" often choose their meal to purposefully turn up the heat.

But scientists are learning there is more than meets the eye (or should we say taste buds) when it comes to peppers. In fact, there is growing evidence that the body-heat-generating power of peppers might even lend a hand in our quest to lose those extra inches accumulating around our collective national [waistline](#). And fortunately for those of us who don't appreciate the "burn" of hot peppers, there are plants that make a non-burning version of capsaicin called dihydrocapsiate (DCT) that could have the benefits of peppers without the pungency.

In a study designed to test the weight-loss potential of this DCT containing, non-spicy cousin of hot peppers, researchers at the UCLA

Center for Human Nutrition set out to document its ability to increase heat production in human subjects consuming a weight-loss diet. Under the direction of David Heber (Professor of Medicine and Public Health), they recruited 34 men and women who were willing to consume a very low-calorie liquid meal replacement product for 28 days. The researchers then randomized the subjects to take either placebo pills or supplements containing the non-burning DCT pepper analog. Two dosage levels of DCT were tested. At the beginning and end of the study, body weight and body fat were assessed, and the researchers determined energy expenditure (heat production) in each subject after he or she consumed one serving of the test meal. On Tuesday April 27, Heber and his research team will present their results at the Experimental Biology 2010 meeting in Anaheim, CA. This presentation is part of the scientific program of the American Society for Nutrition, home to the world's leading nutrition researchers.

Their data provided convincing evidence that, at least for several hours after the test meal was consumed, [energy expenditure](#) was significantly increased in the group consuming the highest amount of DCT. In fact, it was almost double that of the placebo group. This suggests that eating this pepper-derived substance that doesn't burn can have the same potential benefit as hot peppers at least in part by increasing food-induced heat production. They were also able to show that DCT significantly increased fat oxidation, pushing the body to use more fat as fuel. This may help people lose weight when they consume a low-calorie diet by increasing metabolism.

Note, however, that a limitation to this study was that the researchers only tested the effect of DCT on the thermic response to a single meal. Heber and colleagues also point out that there might be a different effect in lean vs. obese subjects. But to their credit, this was the first study ever conducted to examine the potential health benefits of DCT consumed together with a very low calorie diet. The bottom line: don't

be afraid to pile on the peppers.

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