

Little-Known Spice Helps Control Appetite and Burn Calories

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✓ Fact Checked

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STORY AT-A-GLANCE

- › Cardamom, a popular spice in Indian and Middle Eastern foods, helped maintain lean body mass and reduced fat in an animal study, while the animals in the intervention group ate more than the control group
- › Obesity is at epidemic proportions, fueled in large part by addictive processed foods that destroy your metabolism and override your intrinsic intake regulation
- › Chewing on cardamom seeds has a long history of being used to freshen breath. Research shows a cardamom seed extract is effective against oral bacteria that produce bad breath and oral infections
- › Cardamom is a natural way of boosting your natural killer cells. It is responsible for boosting your immune system to fight against viral infections and has demonstrated antineoplastic properties against triple negative breast cancer and colon cancer

For the better part of three centuries, the U.S. has been a meat and potato nation. This is slowly changing as more people are choosing authentic Middle Eastern, Indian or Thai cuisine. Cardamom is a spice recognized as important in ancient cooking that originated in tropical parts of India, Nepal, South Asia and the Middle East.

Cardamom is known as one of the most expensive spices in the world,¹ costing roughly \$30 a pound, slightly less than vanilla, which can cost \$50, and significantly less than saffron, which can command up to \$5,000 per pound.

Researchers have discovered yet another health benefit from cardamom's antioxidant-packed seed pod – it reduces inflammation, increases appetite and increases calorie burn at the same time.²

Cardamom has a very strong flavor profile that can turn an ordinary dish into something special. There are two broad types of cardamom. Green cardamom has a flavor that goes well with sweet and savory dishes, while black cardamom has a more minty and smokier flavor. Green cardamom is known as true cardamom, and is the common variety found at the grocery store.

The spice is made from the seed pods. In Indian recipes, whole pods are used while preparing a variety of curries and rice, while in Middle Eastern cooking, ground cardamom is used in certain desserts and foods.

While you can get powdered cardamom at the grocery, your food will have more flavor when you start with the pods. Green cardamom can also be used in coffee by simply grinding a few seeds along with coffee beans.

The Relationship: Cardamom, Calories and Weight Loss

The 2023 animal study³ was published in the International Journal of Molecular Science by researchers from Texas A&M who found a range of health benefits from consuming cardamom. The principal investigator, Luis Cisneros-Zevallos, Ph.D., is a horticulture and food science professor from Texas A&M College of Agriculture and Life Sciences.

The study demonstrated that cardamom may help maintain lean body weight while reducing body fat.⁴ The data showed cardamom modulates the neuroendocrine axis which regulates body weight, mitochondrial activity, food intake and energy expenditure.

Intake increased fat breakdown in subcutaneous adipose tissue and fasting fat oxidation, and demonstrated it could modulate appetite leading to an increase in energy expenditure all while lowering body fat mass. Interestingly, the appetite modulation led to an increase in appetite, while the mice maintained body weight and lost body fat.

The dosage was extrapolated to human intake, giving a conversion of 76.9 mg to 308.4 mg of bioactive cardamom for an adult weighing 60 kilograms (132.277 pounds).

"Our team has discovered an amazing opportunity to utilize cardamom as a promoter of overall health," Cisneros-Zevallos said. "Cardamom seeds, with this new functionality, can be used in different industries, including the sports industry, functional foods and dietary supplements to favor the production of healthier foods."⁵

In addition to the health benefits, cardamom is economically important to Guatemalan farmers, of whom there are "more than 350,000 currently practicing sustainable and environmental cardamom shade farming in the tropical forest."⁶

Cisneros-Zevallos believes there's a wide range of potential use in addition to the economic importance in Guatemala. Expanding cardamom use could provide economic stability and help address "the immigration crisis observed in recent years."⁷

Junk Food Increases Hunger and Overeating

Obesity and overweight are at epidemic proportions. When a person's weight is higher than normal weight for a given height, the National Institute of Diabetes and Digestive and Kidney Diseases⁸ describes the condition as being overweight or obese. According to data collected from 2017-2018, 30.7% of all men and women were overweight and 42.4% were obese.

The percentage of women with severe obesity is higher than the percentage of men with severe obesity. A significant risk factor for overweight and obesity is junk food. In the featured study, the mice who ate diets containing cardamom consumed more food but gained less weight than the control group that did not eat cardamom.

The food industry has become notorious for funding anti-obesity programs focusing on physical activity, yet research clearly shows that processed foods, sugary beverages and high carbohydrate diets are a primary concern for weight gain. Inactivity certainly contributes to the problem, but you cannot exercise your way out of a poor diet.

In addition to junk food destroying your metabolism and promoting obesity, studies have also demonstrated that **processed foods are addictive**. Manufacturers have figured out a way to override your intrinsic regulators by engineering processed foods that are hyper-rewarding.

In a 2013 New York Times article,⁹ investigative reporter Michael Moss described this as "the tendency for big, distinct flavors to overwhelm your brain." The greatest successes, whether beverages or foods, owe their "craveability" to complex formulas that pique your taste buds without overwhelming them, thereby overriding your brain's satiety signals.

While cardamom may help your body to burn more fat and retain more lean muscle mass, it is also important to note that the mice in the study were fed a normal diet. In other words, they were not eating higher amounts of junk food while losing fat and retaining muscle.

Chewing Cardamom Helps Teeth, Breath and Smoking Cessation

Cardamom has a long history of medicinal uses, including dental health and smoking cessation. There's evidence of traditional use for dental health that goes back thousands of years. Chewing the seeds is endorsed by a study¹⁰ from India as a breath freshener that also stimulates saliva secretions.

Cardamom is often referred to as the queen of spices because of the pleasant aroma and has been common in the Indian subcontinent as a folk remedy. The researchers wrote:¹¹

"But the most common use of cardamom in India has been as an excellent breath freshener. It is a common sight to see women folk as well as men popping cardamom pods to make their breath not minty fresh but "cardamom fresh"."

Extract from the cardamom seed is also effective against oral bacteria. A dentistry paper¹² on oral bacteria notes "The oil extracted from cardamom seeds is a combination

of terpene, esters, flavonoids and other compounds. Cineole, the major active component of cardamom oil, is a potent antiseptic that is known to kill bacteria producing bad breath and other infections.”

Additionally, research has found that chewing gum may help lessen the symptoms of nicotine withdrawal. One study¹³ tested peppermint, vanilla and baked apple cardamom flavored gums against each other and a control group that did not chew gum.

Those who chewed gum exhibited lower levels of tension and anxiety. Those chewing the vanilla and baked apple cardamom flavored gums had lower levels of negative nicotine withdrawal symptoms than those chewing the peppermint gum. The findings suggest that certain flavors, such as cardamom, could lower challenges with nicotine withdrawal.

Remarkable Ability to Enhance Natural Killer Cells

Natural killer cells are a specific type of white blood cell that's an important component in your innate immune system. They're involved in viral disease and other diseases such as cancer and autoimmune conditions. Natural killer cells can kill cells but are not antigens-specific. In other words, they help contain an infection as your adaptive humoral immune response generates T-cells to clear the infection.

Researchers have made an interesting discovery: With enough natural killer cells in your system, you do not contract influenza.¹⁴ Natural killer cells may help prevent some infections. One way of naturally boosting your natural killer cells is to ingest cardamom.

Cardamom is known for its immune-boosting benefits, including increasing natural killer cell activity.¹⁵ Researchers wrote, “Remarkably, it is evident that black pepper and cardamom extracts significantly enhance the cytotoxic activity of natural killer cells, indicating their potential anti-cancer effects.”¹⁶

A 2007 study¹⁷ found cardamom could inhibit colon cancer by preventing cellular damage caused by the accumulation of toxins and various waste products in the colon.

Researchers also believe that cardamonin could have therapeutic potential against triple negative breast cancer.¹⁸

Cardamonin is a natural compound found in cardamom that demonstrated the ability to target a gene that promotes cancer cell evasion of the immune system. Roughly 10% to 15% of all breast cancers are categorized as triple-negative, which means they lack specific receptors for progesterone and estrogen and do not have excess amounts of HER2 protein.

These characteristics increase the difficulty in treating cancer cells. Patricia Mendonca, Ph.D., assistant professor and research analyst at Florida A&M University in Tallahassee, commented in a press release:¹⁹

“This is the first study to describe cardamonin’s inhibitory effect on the expression of PD-L1, which is relevant for the treatment of triple-negative breast cancer. These findings add support to other research that has shown differences in the tumor microenvironment between African and non-African Americans.”

Other ways you can enhance your natural killer cells are to get regular exercise, quit smoking and add black pepper to your food. Like cardamom, black pepper has been shown to enhance the cytotoxic activity of NK cells and promote healthy immune function.²⁰ You'll find more ways to boost your natural killer cells and support your innate immunity in my article, [“How to Improve Your Immune Function.”](#)

Sources and References

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