

Brazilian acai berry antioxidants absorbed by human body

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Acai berry juice, shown here, and pulp contain antioxidants that have been found in a study by Texas AgriLife Research scientists to be absorbable in human bodies. Credit: Texas AgriLife Research photo by Kathleen Phillips

A Brazilian palm berry, popular health food though little research has been done on it, now may have its purported benefits better understood. In the first research involving people, the acai (ah-sigh-EE) berry has proven its ability to be absorbed in the human body when consumed both as juice and pulp. That finding, by a team of Texas AgriLife Research scientists, was published in a recent issue of the *Journal of Agricultural and Food Chemistry*.

Showing the berry's absorption in humans is important because it is known to contain numerous antioxidants. The berry is heavily marketed

in the U.S. as a health food.

The study involved 12 healthy volunteers who consumed a single serving of acai juice or pulp. Researchers believe the results point to the need for continued research on the berry which is commonly used in juices, beverages, smoothies, frozen treats and dietary supplements.

"Acai is naturally low in sugar, and the flavor is described as a mixture of red wine and chocolate," said lead investigator Dr. Susanne Talcott, "so what more would you want from a fruit?"

Talcott, who also is assistant professor with the Texas A&M University's nutrition and food science department, said that previous studies have shown the ability of the human body to absorb target antioxidants (from other produce), but "no one had really tested to see if acai antioxidants are absorbed in humans."

Sales of acai products have increased dramatically in the U.S. where it has been touted as a metabolism booster, weight reducer and athletic enhancer. Advertisements use buzzwords such as health, wellness, energy, taste and organic.

About the only buzzword not used with acai is "local." The berries are harvested in the Brazilian rainforest from acai palms that may reach heights in excess of 60 feet - one of the same palms used to harvest edible hearts of palm.

The fruit is about the size of a large blueberry yet only the outermost layers of the fruit, the pulp surrounding a large internal seed, are edible, Talcott noted.

Talcott and her co-researcher and husband Dr. Steve Talcott began studying the palm- berry in 2001. His first scientific report on acai,

apparently the first such study in English, was published in 2004.

Initially, their studies on the berry examined antioxidant and nutritional components in pulp and juice. Later studies showed the berry's activity against cancer cells, Talcott noted.

With that background, the researchers then decided to find out whether those elements were actually being absorbed into the human body or being eliminated unused as waste.

"Like vitamin C, the body can only absorb so much at a time," Steve Talcott explained.

He said the researchers now "need to determine potential disease-fighting health benefits, so we can make intelligent recommendations on how much acai should be consumed.

For the clinical trial, people were given acai pulp and acai juice containing half the concentration of anthocyanins as the pulp and each compared to the control foods: applesauce and a non-antioxidant beverage.

Blood and urine samples at 12 and 24 hours after consumption showed significant increases in antioxidant activity in the blood after both the acai pulp and applesauce consumption, she said. Both acai pulp and acai juice showed significant absorption of antioxidant anthocyanins into the blood and antioxidant effects. The research couple said future studies hopefully will help determine whether the consumption of acai will result in any disease-preventing health benefit and the proper serving sizes for a beneficial dose for people.

"Our concern has been that it is sold as a super food – and it definitely has some good attributes – but it is not a solution to all diseases," she

said. "There are a great number of foods on the market, and this could just be part of a well-balanced diet."

Source: Texas A&M University - Agricultural Communications

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