Cocoa/Chocolate

Health benefits associated with the cocoa bean, the seed of the *Theobroma cacao* tree, Greek for “food of the gods,” have made headlines in recent months, much to the delight of chocolate lovers. Cocoa, the primary component of chocolate, is a rich source of epicatechin, a flavonol believed to be responsible for the health benefits of chocolate. Teas (green and black) and red wine are also noted for their epicatechin content, but cocoa has a higher epicatechin concentration. (1)

Ancient societies valued the cocoa bean for its invigorating and health-promoting qualities. (2) The Kuna Indians provide modern day evidence of this ancient folklore. The Kuna live on the San Blas islands, off the coast of Panama. Their traditional diet is high in sodium yet they show little to no rise in blood pressure with age. (3) Norman Hollenberg, professor of medicine at Harvard Medical School, observed Kuna people who drink up to 40 cups of cocoa per week. Dr. Hollenberg noted that among the Kuna, rates of stroke, heart disease, cancer and diabetes are less than 10 percent of their frequency in mainland Panama. (4) Nutrition expert Daniel Fabricant, vice president of scientific affairs at the Natural Products Association, said: “It may be that these diseases are the result of epicatechin deficiency." According to Hollenberg, epicatechin in cocoa should be considered essential in the diet, and classified as a vitamin. (5)

Dr. Hollenberg is not the first to investigate the health benefits associated with cocoa. A number of clinical trials indicate that cocoa consumption is associated with decreased risk of cardiovascular disease, lower blood pressure and cholesterol levels, reduced clot formation, improved blood vessel function, and lower insulin resistance.

One characteristic of cardiovascular disease is atherosclerosis, or hardening of the arteries. Studies have shown flavonols in cocoa appear to benefit blood vessel function by influencing the production of nitric oxide, a molecule that helps regulate blood vessel tone. Two studies testing dark chocolate and cocoa found significant improvement in overall blood vessel function in healthy volunteers. (6,7)

A recent German study published in the *Journal of Cardiovascular Pharmacology* suggests that drinking cocoa rich in flavonols can reverse impairment in the function of blood vessels, such as that caused by atherosclerosis. (8) The participants (all smokers) were given cocoa drinks made with different levels of flavonols and significant effects on blood flow were seen after two hours. Blood vessel function improved in proportion to flavonol concentration and could be correlated with that of a person with no known cardiovascular risk factors. The improvement was sustained while participants continued to drink the cocoa. However, after a week of not drinking it, their blood vessel performance returned to previous levels.

Consumption of flavonol-rich dark chocolate has also been shown to decrease blood pressure and insulin resistance in healthy subjects, as well as in persons with hypertension. (9,10) Cardiovascular benefits of dark versus white chocolate were evaluated in hypertensive volunteers by Dr. Jeffrey Blumberg, a senior scientist at the Jean Mayer USDA Human Nutrition Research Center on Aging, and colleagues at the University of L’Aquila in Italy. (10) White chocolate was used as the control because it contains all of the ingredients and calories found in dark chocolate, but without the flavonoids. A decrease in both systolic and diastolic blood pressure was observed in the

dark chocolate group after 15 days. Blood pressure did not decrease in the white chocolate group. The dark chocolate group also experienced a reduction in insulin resistance, and levels of LDL or “bad” cholesterol dropped by about 10 percent in the dark chocolate group, but stayed the same in the white chocolate group.

Cocoa and dark chocolate may also favorably affect HDL or “good” cholesterol levels. (11) A combination of flavonol-rich cocoa and low-dose aspirin was shown to enhance the antiplatelet function of aspirin. (12)

Given its healthful properties and great taste, it’s no wonder cocoa has been a popular food since it was first made into a chocolate drink by the Olmec Indians, around 1500 BC. Today, Americans consume an average of about 12 pounds of chocolate per person, per year. While milk chocolate is still the favorite, the health-promoting qualities of flavonols are attributed to the dark variety. **Nature’s Sweet Life Raspberry Cardio Dark Chocolate and Calcium Crunch Dark Chocolate** offer all of the benefits of dark chocolate, and as they are sweetened with low-calorie, low-carb, all-natural xylitol, you can indulge to your heart’s health.

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