



NANOCEUTICALS™ TODAY

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Chocolate is More Than a Craving!

RBC chooses chocolate in formulating its weight control product, **Slim Shake**, because it's not only delicious, but it has been shown to promote better health. Each serving of **Slim Shake** provides 2.66 grams of chocolate which is an extract of the cocoa bean. RBC uses a **nanotechnology** process to turn cocoa into **CocoaClusters™** to further enhance the chocolate flavor.

A Human Study Shows Consumption of Cocoa Has Significant Heart Health Benefits

The National Nutrition and Health Center in the Netherlands conducted a 15-year follow up study in 470 elderly men. Cocoa intake was estimated from the consumption of cocoa-containing foods. The amount of cocoa consumed was about 2.11 grams per day. Those men that drank cocoa consistently were then compared to the group that did not. Blood pressure was monitored throughout the study. The evaluation over the 15-year period showed that cocoa consumption resulted in highly statistically significant results in supporting the maintenance of optimal blood pressure and important parameters indicating support for improved heart health.*

Buijsse B, Feskens EJ, Kok FJ, Kromhout D. Cocoa intake, blood pressure and cardiovascular mortality: the Zutphen Elderly Study. *Arch Intern Med* 2006;166;4:411-7.

Biochemists Discover Compounds in Chocolate Bind to Pleasure Receptors in Brain Cells

In looking for compounds that could help alleviate mild pain or mild depression in their Neuroscience Departments, scientists discovered and identified a unique compound in chocolate. It was named anandamide from the Sanskrit word "ananda" meaning bliss. The compound binds to and activates receptors, and mimics the effects of certain plant-derived drugs. "The discovery of anandamide in chocolate is totally unexpected and may be relevant to the well-known 'chocolate craving' ", commented Dr. Mechoulam, professor of medicinal chemistry.

Results of further studies demonstrate that cocoa powder and chocolate contain three compounds that could act either directly (by activating the receptors) or indirectly (by increasing anandamide levels). Studies show that brains cells use anandamide as a nerve messenger. Further studies are underway to observe if

the effects of these compounds on the brain promote a sense of well-being by decreasing anxiety and stress levels.*

Brain cannabinoids in chocolate. August 22,. 1996, Vol. 382. *Nature*.
Chocolate may mimic marijuana in brain. Sept.,1996. *Chemical and Engineering News*.

Formation and Inactivation of endogenous cannabinoid anandamide in central neurons. Di Marzo V, Fontana A, Cadas H et al. December 1994, Vol 372, *Nature*.

Cocoa Has Higher Antioxidant Capacity Than Teas or Red Wine

Black tea, green tea, red wine, and cocoa are high in phenolic phytochemicals. Cocoa was found to contain much higher levels of total phenolics and flavonoids per serving than black tea, green tea or red wine. The antioxidant capacity measured by the ABTS and DPPH radical scavenging assays was correlated with the phenolic antioxidant content. The results suggest that cocoa is more beneficial to health than teas or red wine in terms of its higher antioxidant capacity.

Cocoa has more phenolic phytochemicals and a higher antioxidant capacity than teas and red wine. Lee KW, Kim YJ, Lee HJ, Lee CY. *Journal of Agriculture and Food Chemistry* 2003;51;25;7292-5.

Chocolate Flavonoids Improved Lining of Blood Vessels

Cocoa flavonoids have been shown to keep the blood vessels smooth and support the flow of blood. A randomized, double blind, placebo controlled study in 21 adults that consumed high flavonoid chocolate showed improved parameters of blood flow. The mechanisms for supporting blood flow are because of its antioxidant properties and its activation of endothelial nitric oxide. Nitric oxide is an antioxidant produced on the cells lining the blood vessels (endothelium) that gives the vessels strength and helps protect them from free radical damage that can chemically nick the vessel lining, eventually complicating optimal blood flow.*

Flavonoid-rich dark chocolate improves endothelial function and increases plasma epicatechin concentrations in healthy adults. Engler MB, Engler MM, Chen CY, Malloy MJ et al., *Journal of American College of Nutrition* 2004;3;197-204.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.