



Could CHOCOLATE Rival Penicillin & Anesthesia In Terms of Importance to Public Health?

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That's what [Science Daily](#) reported in 2007: that the health benefits of chocolate could rival penicillin and anesthesia in terms of importance to public health. The health benefits of flavanoid compounds in cacao seeds (*Theobroma cacao*) – from which we get “chocolate,” have been found to have beneficial effects on cardiovascular health, blood pressure, cerebral blood flow and brain power, blood sugar control, and intestinal health. Norman Hollenberg, professor of medicine at Harvard Medical School has gone so far as to state that epicatechin, one of the compounds in cocoa, has such important ramifications for health that it should be considered a vitamin.

Years of study involving volunteers of the Kuna Indians who live in the San Blas islands off the coast of Panama, has demonstrated that four of the five killer chronic diseases of our time – stroke, heart failure, cancer, and diabetes – are reduced to 10% normal averages. The Kuna Indians consume approximately 40 cups of cocoa per week! In those Kuna Indians who have migrated to Panamanian cities and consume approximately 4 cups of cocoa per week, these same diseases are as prevalent as in the general population.

It is suggested that cocoa flavanols positively influence cardiovascular health by inducing the release of endothelial nitric oxide, relaxing the arteries and resulting in decreased blood pressure. Other benefits include increased cerebral blood flow, an important factor when it comes to memory and cognition. Restricted cerebral blood flow is a common problem in the elderly population. How nice to think that the perfect prescription might just be a few cups of hot chocolate every day!

Published in the Journal of Cardiovascular Pharmacology in June, 2006, author David F. Dinges, PhD, states in his paper **“Cocoa Flavanols, Cerebral Blood Flow, Cognition, and Health: Going Forward”**:

“As Hollenberg and Luscher point out, not only does flavanol-rich cocoa-induced nitric oxide production show a dramatic influence on blood vessels in healthy individuals, preliminary information available indicates that the influence on nitric oxide synthesis is evident in patients with advanced atherosclerosis, hypertension, or diabetes mellitus.” One might extrapolate here and mention a possible positive effect on erectile dysfunction, as well, as popular drugs such as Viagra and Cialis function by increasing nitric oxide and promoting vasodilation. Further, when it comes to intimacy, chocolate contains phenylethylamine (PEA), an amphetamine-like chemical created in the brain and released when we are in love. This is why we give chocolates as Valentine's gifts! Cacao also contains some anandamide, a neurotransmitter present in the brain. Anandamide promotes feelings of well-being, but its action is short-lived. Chocolate also contains substances that delay the breakdown of anandamide. Both anandamide and phenylethylamine are associated with being alert and mentally focused.

In March of 2010, the British Journal of Nutrition published a study, "The effect of polyphenol-rich dark chocolate on fasting capillary whole blood glucose, total cholesterol, blood pressure and glucocorticoids in healthy overweight and obese subjects." The authors concluded that "the present study confirms previous reports of improved fasting glucose levels and blood pressure following dark chocolate consumption" and that additional studies are needed "to identify the optimal dose of polyphenols required to improve glucose metabolism and to examine additional parameters that could be influenced by polyphenols."

Interestingly enough, in this particular study, no difference in outcome was seen when the content of polyphenols was 1000 mg vs. 500 mg. Because really dark chocolate is bitter, one goal is to find a therapeutic dose of daily chocolate that still tastes good. Personally, and as a practitioner, however, I say suck it up and eat the really dark stuff. We order 99% Lindt bars online (they're impossible to find in the stores). A good bar 85% or over is probably good, but remember that the lower the concentration of cocoa, the greater the sugar content. Since I don't eat sugar or sweetened foods, I go straight for the high-test. I also make a concentrated, liquid medicinal extract of organic cacao powder. I keep it in my purse and take a few squirts throughout the day as I feel so inclined.

Other benefits of dark chocolate polyphenols include anti-inflammatory mechanisms, positive influence on HDL cholesterol, and even influencing intestinal health by contributing prebiotic flavanols! Cacao is a rich source of sulfur and magnesium. The magnesium content is one reason women may crave chocolate during the premenstrual phase, as some of the unease experienced during this time can be related to estrogen dominance and magnesium deficiency. For more information, check out the links below, but don't wait to enjoy all of the health benefits of this delicious "food of the gods!" If you don't already, start eating your daily dose of chocolate TODAY!
