

# Why I liberally indulge in high-test chocolate



What the world doesn't need is yet another cheery article about the health benefits of chocolate. Some of what you see out there is the result of an aggressive marketing push by Big Cocoa, an industry that boasts 101 billion dollars in sales internationally, of which 22.4 billion is in the U.S. alone. Consumption is growing at an annual rate of six percent.

The chocolate industry has fueled demand by underwriting research that shows that chocolate is healthy for you. And there's ample reason for believing this as we'll soon see. But popular bars may be a "Trojan Horse" for added sugar,



poor quality vegetable oils, and cheap emulsifiers. A teentsy Mars bar lists among its ingredients 26 grams of carbohydrates, delivering 166 calories.

A recent study suggests that even milk chocolate might reduce the risk of heart disease and stroke, but its conclusions have been challenged on the basis that chocolate consumption might simply be a marker of affluence that's associated with better health outcomes.

It turns out that milk chocolate may contain as little as 10% of the cocoa flavanols responsible for chocolate's health

benefits; even dark chocolate varies in the potency of its beneficial compounds because processing (“dutching”) degrades polyphenols.

For these reasons, I’ve gotten used to consuming high-test, unrefined 100% chocolate. It’s an acquired taste that takes some getting used to. But, after a while, a few small squares consumed with a hot cup of decaf after a meal takes on the quality of a rich dessert.

So let’s summarize with a full recitation of chocolate’s health benefits:

**Chocolate helps circulation:** Cocoa is a potent inducer of nitric oxide, a chemical messenger that causes blood vessels to relax and expand. Epicatechins in chocolate act as antioxidants, protecting the endothelium, the lining of the arteries. In a 2007 experiment, 22 heart transplant recipients received either 40 grams (1.4 ounces = 4 small squares) or a placebo. There was a rapid improvement in circulation: “Dark chocolate induces coronary vasodilation, improves coronary vascular function, and decreases platelet adhesion 2 hours after consumption. These immediate beneficial effects were paralleled by a significant reduction of serum oxidative stress.” Epidemiological studies confirm that, among dark chocolate consumers, heart attacks and strokes are reduced.

**Chocolate may reduce the risk of atrial fibrillation:** Will your heart go pitter-patter when you consume your favorite chocolate treat? Not according to the latest study. High chocolate consumers (greater than 3 times per week) were found to enjoy 35% reduced risk of developing atrial fibrillation.

**Chocolate combats high blood sugar and insulin resistance:** In a large survey of multiple studies involving 1,139 subjects, consumption of dark chocolate was associated with improvements in numerous cardiometabolic parameters; there were “significant declines in blood glucose and insulin

and triglycerides, as well as another indicator of insulin resistance called HOMA-IR.”

**Chocolate is brain food:** A recent study shows that chocolate consumption was positively associated with a wide range of measurements of cognitive function in subjects ranging in age from 23 to 98.

**Chocolate improves mood and alleviates stress:** A recent Nestle-sponsored study demonstrated that 30 healthy adults who consumed 40 grams of dark chocolate per day had lower levels of stress hormones. Chocolate supports the production of certain “feel-good” neurotransmitters like phenylethanolamine (PEA).

**Chocolate feeds beneficial gut microbes:** The centrality of the microbiome to many aspects of overall health is a hot theme of current research. Thus, it comes as no surprise that the health benefits of chocolate may be due, at least in part, to the supportive effects of cocoa polyphenols on microbial growth in the intestine.

**Chocolate fights wrinkles and skin photo-aging:** At least one small Korean study showed that cocoa flavanols administered to women with moderately photo-aged skin improved skin hydration, wrinkle depth and skin elasticity.

**Chocolate can make you feel sexier(?):** This is where the science gets a little tenuous. While reputed to be an aphrodisiac, chocolate may gratify simply because it stimulates the *nucleus accumbens*, the brain structure associated with pleasure and reward, whether sex or food-related. There’s some possibility chocolate could help erectile dysfunction because of its impact on nitric oxide—the Viagra molecule. A 2006 article in the *Journal of Sexual Medicine* entitled “Chocolate and women’s sexual health: An intriguing correlation” posits that women’s scores on the Female Sexual Distress Scale are lower the more chocolate they

consume. Many magazine articles have cited this as authoritative evidence that chocolate makes you sexier, but the authors of the study are careful to note that correlation is not causation—it may be that these selfsame women eat more Mexican food, read Cosmopolitan, or can afford sexy lingerie!

A handy review of chocolate products with a rating of their flavanol contents can be found here.

Happy chocolate sampling!

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