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# **Health Benefits of Chocolate**

Easter is just around the corner and merchants have stocked their shelves with plenty of chocolate Easter bunnies and eggs to keep chocoholics everywhere satisfied during this seasonal event.

What you may not know are the potential *health* benefits chocolate can deliver. But before you drop a couple of extra chocolate bunnies into your shopping cart, you need to know the *type* of chocolate you eat makes all the difference.

## Choose Your Chocolate Carefully

Of the chocolate available, the kind that provides the biggest therapeutic benefit is dark chocolate. The helpful compounds in chocolate are polyphenols and flavanols - antioxidants that protect the body from damage. In fact, cocoa beans contain higher concentrations of antioxidants than many fruits. Choose dark chocolate with a minimum of 70% cocoa solids to get the most health benefits. With more cocoa solids than milk chocolate, dark chocolate is also often lower in calories, fat and sugar than its sweeter cousin.



#### **High Blood Pressure (Hypertension)**

For people with hypertension, eating dark chocolate can reduce blood pressure. A number of studies support this theory.

Research published in the *Journal* of the American Medical Association revealed eating dark chocolate (approximate 30 calories daily) was linked to blood pressure reductions - and without causing weight gain!<sup>1</sup>

The polyphenols seem to have the magic effect on blood pressure. In a study contrasting dark chocolate versus white chocolate (which had no polyphenols) hypertension patients who consumed dark chocolate daily for 18 weeks saw a -2.9 (1.6) mm Hg reduction in systolic blood pressure and a -1.9 (1.0) mm Hg decrease in diastolic. The patients who ate white chocolate saw no change in their blood pressure levels.<sup>1</sup>

While the blood pressure reductions seem modest, even small declines dramatically cut hypertension health risks. According to researchers, a blood pressure reduction of 3-mm Hg could slash the risk of fatal strokes by 8%.1 Another interesting fact is chocolate does not impact blood pressure in normal range.

#### Exercise of the Week

Balance Single Leg in Table Top Reverse Bridge Position

(Consult your chiropractor before engaging in this or any other exercise.)

#### **Difficulty: High**

Walk out to a table top position. Bring arms out to sides, and feet close together. Extend one leg straight out, keeping the thighs parallel. Hold position for 5-10 counts. Switch sides. Repeat 3-4 times per side.







#### Cholesterol

In research released in February of this year, scientists found that chocolate can raise the body's levels of HDL cholesterol (good cholesterol) and lower LDL (bad cholesterol). Scientists remarked that the polyphenols spur the production of specific proteins. These proteins are abundantly found in HDL cholesterol. At the same time, the polyphenols appear to multiply the development of LDL receptors, which then lower the amount of LDL cholesterol.<sup>2</sup>

#### Stroke

A 2011 review of stroke studies showed that consumption of chocolate may cut the mortality risk of stroke. One study mentioned in the review showed 45,000 people who consumed a serving of chocolate weekly were 22% less likely to die from a stroke than people who did not consume it. <sup>3</sup> A review of a second study revealed 1200 people who ate 50 grams of chocolate a week were 46% less likely to die from a stroke compared to non-chocolate eaters.<sup>3</sup>

Also, in research conducted by Johns Hopkins University, medical researchers found an ingredient in dark chocolate may protect the brain from stroke damage. The amazing substance is called epicatechin. In mice experiments, scientists discovered the rodents who ingested epicatechin before an induced stroke had considerably less brain damage.<sup>4</sup> More human research is needed to determine how much of this substance people would need to consume to obtain the protective advantages.

#### **Other Cardiovascular Benefits**

Last year, researchers at University California San Francisco found high levels of cocoa flavanols enhance the circulation of angiogenic cells, which are important for repairing vascular damage and maintaining blood vessel health.<sup>5</sup> It was also noted that the blood sugar levels remained stable among the study participants, which may make it beneficial for diabetics.

A 2010 Swedish study showed middle aged and elderly women who consumed one to two servings of milk chocolate weekly were 32% less likely to suffer heart failure.<sup>6</sup> However, you should be aware milk chocolate sold in Sweden has nearly double the amount of cocoa solids than North American products.

#### Is Chocolate A Stress-Buster?

The answer is "Yes," according to a study published in the *Journal of Proteome Research*. Participants who rated as emotionally stressed ate an ounce and a half of dark chocolate daily for two weeks. Researchers noted the chocolate influenced the metabolism and subsequently lowered the amount of stress hormones in the participants.<sup>7</sup>

### Before You Take a Bite

Chocolate can be high in sugar, fat and calories, so eating in moderation is vital. If you have health conditions such as diabetes, consult your chiropractor to make sure it is safe for you to consume chocolate.



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### Quote to Inspire

"I have this theory that chocolate slows down the aging process. It may not be true, but do I dare take the chance?"

- Anonymous

#### **References and sources:**

1. Consumption Of Small Amounts Of Dark Chocolate Associated With Reduction In Blood Pressure - JAMA. 2007 298(1):49-60.

2. Cacao Polyphenols Influence the Regulation of Apolipoprotein in HepG2 and Caco2 Cells - *J. Agric. Food Chem., 2011, 59 (4), pp 1470–1476.* 

3. Can Chocolate Lower Your Risk of Stroke? – Press Release; American Academy of Neurology, 62nd Annual Meeting; Toronto, Canada; Feb.11, 2010.

4. The flavanol (-)-epicatechin prevents stroke damage through the Nrf2/HO1 pathway – Journal of Cerebral Blood Flow & Metabolism, 2010; DOI: 10.1038/jcbfm.2010.53.

5. Improvement of Endothelial Function With Dietary Flavonols Is Associated With Mobilization of Circulating Angiogenic Cells in Patients With Coronary Artery Disease - J Am. Coll. Cardiol, July 13, 2010; 56: 218-224.

6. Chocolate Intake and Incidence of Heart Failure: A Population-Based, Prospective Study of Middle Aged and Elderly Women – *Circulation Heart Failure*, 2010; DOI: 10.1161/CIRCHEARTFAILURE. 110.944025.

7. Metabolic Effects of Dark Chocolate Consumption on Energy, Gut Microbiota, and Stress-Related Metabolism in Free-Living Subjects - Journal of Proteome Research, 2009; 091007113151065 DOI: 10.1021/pr900607v

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