



## Chocolate is healthy... But!

**Before we replace fruits and vegetables with chocolate bars, let's take a look at what we know about the different types of chocolate:**

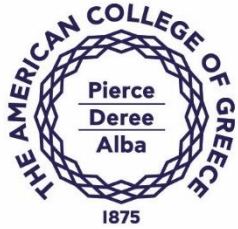
Red wine, tea, strawberries, apples, cranberries, peanuts, and many other fruits and vegetables have been found to contain many antioxidants.

The highest amount of a subclass of polyphenol antioxidants known as flavonoids can be found in the raw cocoa beans of the *Theobroma cacao* tree, specifically the flavanols *catechin* and *epicatechin*.

It is these flavanols that are currently being investigated, and seem to point to striking benefits in the reduction of cardiovascular disease and cancers by reducing inflammation, lowering blood pressure, controlling blood sugar, improving your mood and reducing stress.

Sounds like a new super nutrient but, in reality, the chocolate bars and cocoa powder we find in the supermarket are the end result of adding sugar, fat, and other ingredients to the originally healthy cocoa bean.





## Choosing Healthy Chocolates

Not all chocolates are created equal in terms of their nutritional value. There are a variety of chocolates available in the market place: white chocolate, milk chocolate, semisweet chocolate, bittersweet chocolate and unsweetened chocolate and cocoa powder.

**Cocoa powder** is made up of cocoa bean solids – which hold the flavonoid compounds – and cocoa butter. Most popular cocoa powder mixes contain cocoa treated with alkali (called Dutch cocoa), which allows the powder to mix well with cold liquids, but removes most of the healthful flavonoid compounds. If you can find natural or untreated cocoa mixes, they should have more flavonoids. One to two tablespoons of natural cocoa powder provide about the same amount of flavonoids as half an ounce (1 Tablespoon) of dark chocolate, which is the amount that most studies suggest for health benefits.

To confuse matters further, **dark chocolate** can either be sweet, semi-sweet, bittersweet or unsweetened. Also the labeling regarding the percentage of cocoa solids can be misleading because they may refer to the amount of cocoa powder and cocoa butter. To add insult to injury, the flavanol content varies widely from product to product.

**Sweet dark chocolate** may contain 35-45% cocoa solids, where as semi-sweet chocolate, the classic **dark baking chocolate**, frequently used for cakes, cookies and brownies contains 40-62% cocoa solids. The more cocoa solids the more the health benefit.

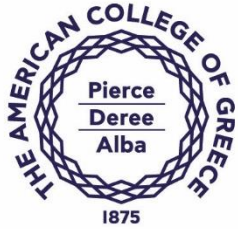
**Bittersweet chocolate** is a dark sweetened chocolate which must contain at least 35% cocoa solids. Good quality bittersweet chocolate usually contains 60%-85% cocoa solids depending on brand.

**Unsweetened chocolate** is a bitter chocolate which is only used for baking and contains almost 100% cocoa solids, about half of it might be fat (cocoa butter).

**Milk chocolate** is sweet and contains 10-20% cocoa solids (which includes cocoa and cocoa butter) and more than 12% milk solids. It is seldom used for baking, except for cookies. Studies show that if we eat dark chocolate, we get a nice spike in the antioxidant power of our bloodstreams within an hour. If we eat milk chocolate, we get nothing. In fact if we eat that same dark chocolate with a cup of milk, the benefit is suppressed.

**White chocolate** contains no cocoa bean solids and therefore is not a source of flavonoids. You may see white chocolate labels stating a percent cocoa content, but this is all present in the form of cocoa butter.

Look for a high percentage of cocoa solids  
and a low sugar & fat content!



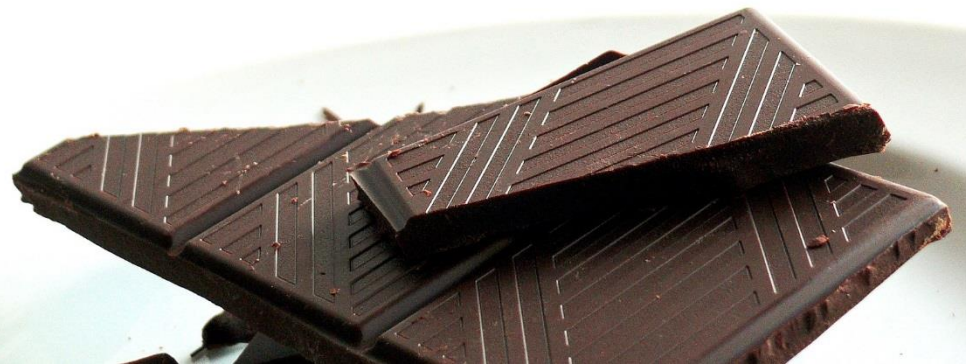
## The Benefits of Dark Chocolate

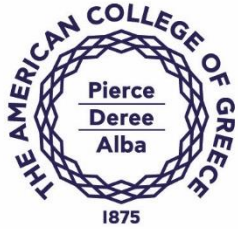
So, for chocolate lovers craving something sweet, dark chocolate may provide a credible excuse. Different studies have shown that eating a small amount of flavanol-rich dark chocolate two or three times a week may offer health benefits. Here's what studies have revealed.

**Good for your heart** by lowering your blood pressure, improving blood flow, and helping prevent the formation of blood clots. The anti-inflammatory compounds in flavanol-rich cocoa help fight chronic vascular inflammation and improve flexibility in blood vessels thereby reducing your blood pressure. Chocolate is misunderstood due to its cocoa butter content, which is high in saturated fat. However, this and other types of saturated fat, such as coconut oil, could actually be *good* for you. One-third of the fat in cocoa butter is stearic acid, which the liver converts to a healthy monounsaturated fat called oleic acid. Oleic acid actually lowers levels of bad (LDL) cholesterol and boosts levels of good (HDL).

**Good for your brain** as it can increase blood flow to the brain as well as to the heart, so it can help improve cognitive function. It may also help reduce your risk of stroke. It also contains caffeine (less than coffee) which is a good stimulant. Magnetic resonance imaging studies have shown that chocolate boosts blood circulation to the brain, which can sharpen your ability to focus and perform tasks.

**Good for your blood sugar** by keeping the blood vessels healthy and the blood circulation functional which help protect against type 2 diabetes. The flavonoids in dark chocolate also help reduce insulin resistance by helping your cells to function normally and regain the ability to use your body's insulin efficiently. It also has a low glycemic index, meaning it won't cause huge spikes in blood sugar levels, provided the mix doesn't have added sugar.





## Know the Facts

## Nutrition & Fitness



# The Benefits of Dark Chocolate

**Good for supplying antioxidants** that free your body from dangerous free radicals, which cause oxidative damage to cells. Free radicals are implicated in the aging process and may be a cause of cancer, so eating antioxidant rich foods like dark chocolate may protect you from many types of cancer and slow the signs of aging.

**Good for your teeth** due to its Theobromine content it hardens tooth enamel. So unlike most other sweets, it lowers your risk of getting cavities if you practice proper dental hygiene.

**Good for weight loss** Chocolate doesn't help you lose weight. It is very calorie dense. That said, if you must have chocolate, researchers from the University of Copenhagen found that dark chocolate is far more filling than other chocolates, and may lessen cravings for other sweet, salty, and fatty foods.

**Good for reducing stress** as it contains several chemical compounds that have a positive effect on your mood. Phenylethylamine (PEA), found in the cocoa bean, stimulates your brain to release endorphins directly associated with the pleasurable feelings you have when you are in love and sexually aroused. It also contains anandamide, which binds to the same receptors in the brain as the active ingredients in marijuana, thus producing feelings of euphoria. Not everyone reacts the same way, however the majority of us do feel happier and less stressed out after a bite of dark chocolate.

**Good for your health** due to its high vitamin and mineral content. Copper and Potassium prevent stroke and cardiovascular ailments. Iron protects against iron deficiency anemia. Magnesium helps prevent type 2 diabetes, high blood pressure and heart disease.



### CHEAT SHEET

#### White Chocolate

no flavonoids = no health benefits

#### Milk Chocolate

some flavonoids = few health benefits

#### Dark Chocolate

higher flavonoids = maximum health benefits  
(still high in calories so, consume in moderation!)