



# Chocolate

## Chocolate's Health Benefits

In the last few years, the myth that chocolate has no nutritional value has been shown to be false. Dark chocolate, when consumed in moderation and within one's recommended daily calorie requirements, actually has many health promoting effects.

- Chocolate is a rich source of magnesium, copper, iron and zinc.
- Chocolate contains polyphenols and flavonoids, which are rich sources of antioxidants—and cocoa flavonoids are more powerful antioxidants than those found in black tea, green tea, red wine or apples!
- The abundance of nutrients and antioxidants in chocolate can help explain why moderate consumption has been linked to heart health, reduced inflammation, increase cognitive function and decreased risk of hypertension.

## Tips for Choosing Chocolate

To reap the health benefits of chocolate make sure to read labels. Presented below are two real-world labels to show not all chocolate is equal. Remember these 3 tips next time you're at the store:

- (1) For the most benefit, choose chocolate that has cocoa mass or cocoa liquor listed as the first ingredient. The first listed ingredient on foods represents the most abundant item. Cocoa mass and cocoa liquor both contain the beneficial antioxidants found in chocolate.
- (2) Look for dark chocolate with 70% or greater cocoa, which studies have shown to have higher health- promoting properties.
- (3) Try to limit chocolate products containing artificial flavors or ingredients. These type of ingredients often indicate less cocoa is included and more processing was required. The more chocolate is processed, the less beneficial health properties remain.

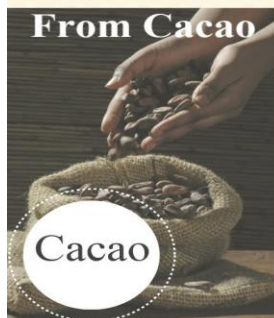


**INGREDIENTS:** COCOA MASS, SUGAR, COCOA POWDER, SOY LECITHIN, COCOA SOLIDS 72% MIN. MADE ON EQUIPMENT SHARED WITH WHEAT, MILK, EGGS, PEANUTS AND TREE NUTS.

VS

Nutrition Facts		Amount/serving	%DV*	Amount/serving	%DV*
Serving Size 1 bar		<b>Total Fat</b> 22 g	<b>34%</b>	<b>Total Carb.</b> 44 g	<b>15%</b>
<b>Calories</b> 370		Sat. Fat 13 g	<b>65%</b>	Dietary Fiber 2 g	<b>8%</b>
Calories from Fat 200		Trans Fat 0 g		Sugars 41 g	
*Percent Daily Values (DV) are based on a 2,000 calorie diet.		<b>Cholest.</b> 20 mg	<b>7%</b>	<b>Protein</b> 6 g	
		<b>Sodium</b> 60 mg	<b>3%</b>		
<small>           INGREDIENTS: MILK CHOCOLATE (SUGAR; MILK; CHOCOLATE; COCOA BUTTER; LACTOSE; MILK FAT; SOY LECITHIN; PGPR, EMULSIFIER; VANILLIN, ARTIFICIAL FLAVOR). © D         </small>					

# Chocolate



Cacao beans are fermented, roasted, and processed into cocoa mass and cocoa liquor

Cocoa mass can be separated into cocoa powder and cocoa butter

Cocoa mass or liquor is added to sugar and extra cocoa butter and sometimes milk to make chocolate



## Types of Chocolate

Dark	Milk	White
Must contain at least 35% cocoa mass	Less cocoa mass than dark chocolate	No cocoa mass
Cocoa butter	Cocoa butter	Cocoa butter
Less sugar than milk and white chocolate	Sugar	Sugar
	Milk	Milk
		Vanilla

## Can Chocolate be Good for My Health?

Flavanols, a plant compound found in cacao, may contribute to heart health



♥ Choose chocolate with greater than or equal to 70% of cacao

♥ Eat chocolate in moderation

### References

<http://exhibits.mannlib.cornell.edu/chocolate/darkmilkwhite.php>

Neela Badrie, Frances Bekele, Elzbieta Sikora & Marek Sikora (2015) Cocoa Agronomy, Quality, Nutritional, and Health Aspects. *Critical Reviews in Food Science and Nutrition*, 55:5, 620-659. DOI:10.1080/10408398.2012.669425

David L. Katz, Kim Doughty, and Ather Ali. (2011) ANTIOXIDANTS & REDOX SIGNALING 15:10, 2779-2809. DOI: 10.1089/ars.2010.3697

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## Cooking with Dark Chocolate

Dark chocolate, particularly artisanal chocolates, are popular with chocolate lovers for their unique flavor profile and decadent taste, but selecting dark chocolate for cooking requires special consideration.

### Helpful baking tips— from cookies to pudding:

1. Avoid using fancy artisanal chocolate. The qualities you love when consumed at room temperature will not survive the oven.
2. Select chocolate with greater than 35% cocoa/cacao.
3. Rule of thumb: more sugar means less cocoa solids. You want more cocoa solids for quality dark chocolate.
4. Select chocolate with less than 50% sugar to avoid “too-sweet” taste.
5. Be mindful of sugar to cocoa solids ratio for puddings. Ratio determines if pudding is “drippy/runny” or “clumpy.” The more sugar, the more “runny.”
6. Chocolates containing milk fat are ideal for truffles and glazes due to lower and wider melting point.

**HAPPY BAKING!**