

Chocolate wonders

Healthy perks in small amounts

Chocolate's popularity is evident when you consider the number of product choices available. In recent years, chocolate's status has been changing due to research indicating compounds found in chocolate may offer some potential health benefits.

Raw cacao beans are a rich source of flavonoids, which are antioxidants found in plants. Flavonoid compounds appear to play a protective role in cardiovascular health. Of these compounds, flavanols are especially concentrated in raw cacao beans.

Know your chocolate

But the chocolate products you're choosing to nibble on or to use in making a cup of hot cocoa are far from raw beans. If you're keeping your health in mind, it pays to know which type of chocolate might offer you more in the way of desirable flavanols.

By nature, raw cacao beans are bitter to the point of being virtually inedible. That bitterness is mostly due to the generous amount of flavanols in raw beans. So in order to make chocolate palatable, chocolate products are processed to varying degrees.

Depending on what the final product is to be, the raw beans are fermented, roasted, ground and separated into the components of pure chocolate — cocoa powder (fat-free cocoa solids) and cocoa butter. Some chocolate manufacturers have developed cocoa-processing techniques aimed at retaining a higher level of flavanol content.

As a general rule, flavanol content mirrors the level of fat-free cocoa solids in a chocolate product — unless the cocoa powder is "dutch." Many cocoa powders go through "dutching," which uses alkali to neutralize the bitter taste.

As a result, dutched cocoa is not only devoid of bitterness, but it also has fewer healthy flavanols — the antioxidant activity of heavily alkalinized cocoa may be less than half that of natural cocoa.

As for white chocolate, it contains no cocoa powder, only cocoa butter, sugar and flavorings.

Milk chocolate with its smooth, creamy texture and mild flavor also scores low on the flavanol scale. That's due to the added dairy ingredient, which basically takes the place of the fat-free cocoa solids. Milk chocolate beats out white chocolate, but not by much.

Cool beans

As a general rule, the best chocolate options for flavanol content are dark chocolate that doesn't list sugar as its first ingredient and unsweetened 100 percent cocoa powder that hasn't been alkalinized (Dutch processed). If a chocolate or cocoa has been dutched, the ingredient list will say that it's been processed with alkali.

Researchers have linked cocoa powder and dark chocolate with a number of cardiovascular benefits. These include improvements in blood pressure, cholesterol levels, blood clotting, blood vessel function, insulin sensitivity, and inflammatory markers associated with the buildup of fats in and on artery walls (atherosclerosis).

If you enjoy a little chocolate now and then, beware of calories. Check serving sizes to determine what a square or two of your favorite dark chocolate — the darker the better — adds to your daily calorie count. □

Percent of fat-free cocoa solids in chocolate products

Unsweetened cocoa powder	82%
Unsweetened baking chocolate	47%
Dark chocolate	23%
Semisweet chocolate chips	17%
Milk chocolate	6%
Chocolate syrup	6%



Source: *Journal of Agricultural and Food Chemistry*

With the exception of chocolate that has been dutched, the percent of fat-free cocoa solids in a chocolate product is a fair indicator of its flavanol content.

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