

## Cocoa and Chocolate: Sweet News!

Did you know that cocoa packs a powerful antioxidant punch? Thanks to nutrientrich cocoa beans, this plant-based food contains naturally-occurring antioxidants. The good news is that people benefit from these antioxidants when they eat plant foods such as fruits, vegetables, nuts, beans and whole grains.

### Cocoa Beans are rich in flavanols

Cocoa beans are rich in a specific type of antioxidant called flavanols. Flavanols are found in several plant foods such as apples, berries, beans, nuts, purple grapes, red wine and teas.

An interesting fact is that cocoa beans are not actually beans. They are seeds from the fruit of the *Theobroma cacao* tree. The seeds (cocoa beans) are used to make cocoa and chocolate. Natural cocoa powder is made by pressing most of the cocoa butter out of the cocoa beans. Chocolate is made from the whole cocoa bean with additional cocoa butter. Natural cocoa powder and most chocolates retain flavanols at different levels. Emerging research indicates that the flavanols in cocoa and chocolate may have protective health benefits.

### **Cocoa Has Antioxidant Power**

Eating plenty of plant-based foods helps to reinforce our own body's defenses by offering protection against harmful molecules in the body called free radicals. Chocolate and cocoa are naturally rich in antioxidants. When ranked against other antioxidant-packed foods, chocolate and cocoa can have more than 10 times the antioxidant power as other foods (see chart on page 2). A good rule of thumb for choosing products rich in flavanols is to look for non-alkalized or lightly alkalized cocoas (also called "dutched" cocoa). Natural cocoa is not alkalized. Also look for darker chocolates made with at least 40% cocoa bean content or "cacao."

### Cocoa, Flavanols and Health

Flavanols were originally studied for their aroma and flavor contributions to foods. Today, these compounds are the focus of research related to their possible health benefits. While the initial area of interest was the antioxidant action of flavanols, emerging research suggests that the health benefits go beyond their ability to fight free radicals.

Recent findings suggest that components of cocoa and chocolate may impact the cardiovascular system, kidney function, brain health, immune system, diabetes and blood pressure. So far, researchers have reported that cocoa and chocolate have the following benefits on vascular health:

- Help limit buildup of plaque in arteries by lowering LDL (bad) cholesterol
- Help raise HDL (good) cholesterol

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- Help blood platelets to be less "sticky" which promotes healthy blood flow
- Reduce blood pressure in people with high blood pressure, and
- May also have beneficial effects on maintaining healthy blood sugar levels, increasing blood flow in the brain, and keeping skin healthy.

While these studies help to support the health connection of cocoa and certain types of chocolate, more research is needed to better understand the potential benefits.

# Finding high flavanol cocoas and chocolates

Generally, the more natural cocoa in the product, the higher the flavanols. However, just like overcooking vegetables may decrease the amount of nutrients in food, cocoa bean handling and processing can affect the amount of flavanols in cocoa and chocolate products. Fortunately, cocoa and chocolate manufacturers are working to better understand and preserve the naturally-occurring nutrients found in cocoa beans.



The ORAC score is a scoring method created to estimate the overall antioxidant potential of plant-based foods. The higher the ORAC score, the greater the antioxidant potential.

Chocolate and cocoa products analyzed by Gu et al. (2005). Other foods are from Wu et al. (2004). Serving sizes based on the FDA's Reference Amounts Customarily Consumed.

As a plant-based food and ingredient, chocolate can be part of a healthy diet when used in moderation. Chocolate can add flavor to nutritious foods such as milk that makes the food more appealing. However, keep in mind that chocolate contains fat and added sugar that provide additional calories. Enjoy chocolate-in moderationfor its distinctive flavor as well as for its potential health benefits. And, be sure to include a variety of antioxidant rich foods such as fruits, vegetables and whole grains every day.

# For a referral to a registered dietitian and for additional food and nutrition information visit **WWW.EATRIGHT.ORG**

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