

Guillermou

We can enhance the activity of cocoa with a resveratrol (RES) supplement and foods rich in flavonols and RES present in berries and grapes rich in polyphenols with known anti-apoptotic, antioxidant and anti-inflammatory effects. In many studies, RES has been found to have many potential health benefits, such as cardioprotective, antihypertensive, neurological, antiplatelet, hypoglycemic, and anticancer. . Recently published literature has shown that RES defend against some neurodegenerative diseases and obesity, in addition to being effective in the treatment of osteoporosis in postmenopausal women and ensuring a low risk against breast cancer, RES replacement therapy has been shown to be potentially effective for stroke, high blood pressure, diabetes mellitus, and heart failure. Additionally, RES has been shown to improve myocardial hypertrophy, mitochondrial dysfunction, fatty acid oxidation, and cardiac dysfunction.

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The antihypertensive effects of RES are mediated by AMP-activated protein kinase (AMPK) and SIRT-1. Activation of SIRT-1 and AMPK increases the expression and activity of endothelial nitric oxide synthase (eNOS), resulting in the production of nitric oxide (NO). NO produced by vascular endothelial cells relaxes vascular smooth muscle and dilates blood vessels, lowering blood pressure. Resveratrol supplementation in hypoglycemic therapy improves glucose control and reduces blood pressure.-----
-----www.ingentaconnect.com/content/ben/cddt/2020/00000017/00000003/art0000.. (2020).---
www.mdpi.com/.../5645 (2020).---- www.mdpi.com/.../5006 (2021).---
www.sciencedirect.com/.../S0753332221009483 (2021).---
www.sciencedirect.com/science/article/abs/pii/S1043661821003091 (2021).---
www.sciencedirect.com/science/article/abs/pii/S1089860322001136 (2022).---
www.hindawi.com/.../9734738 (2022).--
www.sciencedirect.com/science/article/abs/pii/S1744388121001900 (2022).----
www.nature.com/.../s41440-023-01277-z (2023).---
journals.lww.com/cjasn/abstract/2024/02000/effect_of_resveratrol_on_en.. (2024).---

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Yes, thanks Gui for pointing out that studies such as the COSMOS study cited by Dr. Mercola were reporting results from intake of a supplement containing the flavonols that are also in "dark chocolate" (any "chocolate" sold that has at least 70% cocoa content). These results were quite conclusive and convincing of the power of the flavonols in such a supplement to make great improvements in heart health. Other studies mentioned in the references such as the Chinese Mendelian study focused just on intake only of "dark chocolate" and were not as impressive, obviously because the levels of flavonols contained just in the chocolate are not as high as in a flavonol fortified supplement and were shown to certainly improve risk of "essential hypertension" and one other CVD risk, but made no improvement in 10 other known risks to CVD disease.

So yes, it's important to remember that astounding benefits from a supplement cannot all be fully expected from just consuming a daily dose of "dark chocolate". As you point out, the supplements, such as resveratrol and others, are heavily responsible for the benefits shown in the COSMOS study, and we should probably look into these supplements for our own use if we wish to see the health improvements shown in the COSMOS study.

Studies done just with "dark chocolate" that show health improvement are quite impressive though, considering that a 70% concentration of cocoa means that pure cane sugar constitutes the other 30% of the tested chocolate. Eating anything that is 30% refined sugar is questionable, based on the many known adverse effects of sucrose consumption, even if one or two cardiovascular markers may show improvement. It's interesting that in the Chinese Mendelian study Dr. Mercola cited, the table of results actually shows some negative results from the chocolate for 10 different CVD measurements, including Atrial fibrillation and stroke: www.nature.com/.../s41598-023-50351-6

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Very interesting reflections, stoneharbor. Blood pressure is associated with insulin resistance and obesity. The consumption of fruits with a low glycemic index and vegetables rich in polyphenols is recommended for normal blood pressure. This study reported that the intake of flavonoids, hydroxybenzoic acids and flavonols is associated with a lower prevalence of hypertension.

www.tandfonline.com/.../07315724.2021.1977735 (2023).-- A meta-analysis revealed that polyphenols, both in whole food and extract forms, may be effective in reducing cardiometabolic risks.

www.sciencedirect.com/.../S2161831323000029 (2023).---- In this study of an 18-year national cohort study, foods containing polyphenols, particularly vegetables and fruits rich in lignans and stilbenes, were significantly associated with a lower risk of hypertension and different patterns were observed. U-shaped relationships with hypertension were observed for total polyphenols, flavonoids, and phenolic acid, while L-shaped associations were observed for lignans and stilbenes. Furthermore, higher fiber intake strengthened the polyphenol-hypertension association, especially for lignans.

www.sciencedirect.com/science/article/abs/pii/S0002916523488946 (2023).-- According to epidemiological research and related meta-analyses, diets rich in plant polyphenols protect against cancer, cardiovascular diseases (CVD), diabetes, osteoporosis, and neurological diseases in the long term. www.taylorfrancis.com/chapters/edit/10.1201/9781003369813-1/nutritiona.. (2024).---

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stoneharbor

Thanks for a lot more on how so many phytonutrients found in whole (and usually fresh) foods are benefiting human health. If we all only took in more of these nutrients with antioxidant and anti-inflammatory substances I'm sure the average life-span of humans would again begin to go upward, and not downward as is the latest trend. An interesting point that your last link mentions is the fact that these polyphenols are in the plants originally to protect against UV radiation. It's amazing though that they still protect humans in many different ways totally unrelated to radiation.

Posted On 02/15/2024

stoneharbor

For chocolate to be termed "dark chocolate" it must be at least 70% cocoa (and thus as much as 30% refined sugar). But it could also be 90% cocoa and only 10% sugar. Or it can be pure, 100% cocoa. You can almost always find 100% cocoa with the other chocolate mixtures in the baking aisle of a supermarket. Not only that, you can usually find 100% organic cocoa there. Whether this would tend to have less heavy metals, I have no idea, but if you use 100% cocoa, you are getting 42% more flavonols, than you get when using "dark chocolate" that is only 70% cocoa, because refined sugar has no flavonols that I know of. So, if for about the same cost of 70% cocoa bars or powder you can get 42% more flavonols then why not do it?

Well, there's the taste. The reason they add sugar in such large amounts is 1) it gives them more profit; 2) cocoa has a bitter taste. But I swore off added sweeteners decades ago . No refined sugar for me, thanks. But I still relish cocoa. I love it and don't demand that it taste sweet. If you don't like the bitter taste, you could mix the powdered version of cocoa it with bananas or peanut butter. If you add a little coconut oil to cocoa and peanut butter and put it in the freezer you come out with home made Reese's pieces. Just eat it before it warms too much to keep your fingers less soiled.

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A great reality, stoneharbor. I like to add various medicinal herbs, ginger, raw cocoa and raw honey to my tisane. All ecological.

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stoneharbor

BTW, if your chocolate purchases seem quite a bit more expensive lately, it's because of serious wind damage to West African plantations last year causing cocoa prices to hit all time highs last week in the commodities markets. A recent high of \$5,874/ton in New York, and 4670 pounds / metric ton in London are about 90% higher than the prices of cocoa at the beginning of 2023. These prices are expected to remain high for many months now and may go higher before a drop in price can occur. www.reuters.com/markets/commodities/cocoa-prices-soar-record-highs-tra..

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ICONOCLAST

Try mixing Cacao powder with Tahini, Honey, Ceylon Cinnamon and put on a slice of Spelt loaf spread with Coconut Oil. Mmmmmmmm

Posted On 02/16/2024

brianallen1

EVERYTHING causes cancer in California. That is why I stay away from there.

Posted On 02/15/2024

therealjones

California seems to cause stupidity also.

Posted On 02/15/2024

den7788

I stay away from Colorado where stupidity is the highest.

Posted On 02/15/2024

melaniesnell

@Dr. Mercola ~ I'm in love with your Solspring dark chocolate (especially the one with Himalayan salt!). Have these bars been tested? Would they be considered a safer bet to eat daily?

Posted On 02/15/2024

ktinkler58aol.com

I, too wondered about Dr. Mercola's biodynamic dark chocolate....as I eat it everyday. Surely, he has it tested.

Posted On 02/15/2024

Shasha

Chocolate has Mg which relaxes muscles and helps more than 300 chemical reactions.

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Kirbyhughes

There are so many articles in chocolate with the fat. Why are so little studies using cocoa with powder. I have been consuming 100% cocoa with 0.5 grams listed with no saturated or trans fats for a decade and no side effects. Your articles very informative, but I have seen one of eating chocolate without the fat. Why? Kirby Hughes, old guy

Posted On 02/15/2024

goodbody2

I recently saw a rundown on various chocolate companies around the world. It is rather shocking what some of them do. But the fascinating point was made that the chocolate inside the shell has relatively no lead. The processing contaminates the chocolate from the shell after it is opened. And also because the chocolate is left out by the road to transport, third world countries still using leaded gasoline smother it with exhaust.

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Ronald_H

Exactly! The membrane surrounding the chocolate bean has an amazing affinity for heavy metals. Is it a powerful chelation? It should be studied. I know the food processing industry equipment well and it is all stainless steel and doesn't contaminate foods. The Lead and heavy metals is in the soil. Harvested cocoa beans are sorted in contact with the ground and not on tables nor even tarps. The membrane captures the heavy metals. I'm wondering if the uncontaminated cocoa membrane can be stripped and put into capsules as detoxification for us. I use chemical chelation and would prefer natural particularly since it works so well to gather toxins.

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Ronald_H

It bothers me that healthful dark chocolate contains lead and heavy metals toxicity. Can the industry discover the cause and do what it takes to eliminate polluting such an otherwise healthful product with the worst of toxicities? It's like having our mineral rich seaweed contaminated with plutonium ... wait ... they've done that! I bought a lifetime supply two weeks after Fukushima that was in a warehouse before the event! Seaweed concentrates plutonium 6000 times! Now, what can I do about dark chocolate? I have a hundred pounds of "organic" cocoa. Where can I get it tested for heavy metals?

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workoutfreak

Would raw cacao nibs stand on for dark chocolate. I eat a little everyday.

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bchristine

I eat high-quality organic dark chocolate daily and still have high BP. I'm only a few lbs overweight (although most would say not); eat very clean and just started adding beetroot to my diet. I hope it makes a difference because it worries me at 65.

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