

Food Antioxidants May Help Hearts, Extend Lives

Diets rich in polyphenols linked to 46% lower heart risk and 30% longer lifespans

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The alleged health benefits of supplemental antioxidant vitamins continue to generate controversy.

But there's much less doubt about the benefits of fruits and vegetables rich in the compounds popularly known as "antioxidants".

Back in 1991, National Cancer Institute developed the national 5 A Day for Better Health Program.

Unfortunately, many Americans still fail to eat the five or more daily servings of fruits and vegetables urged on them by U.S. health agencies.

Foodborne antioxidants and heart health

These are some of the research summaries we've published over the past decade.

These and other articles in the [Foods & Heart Health](#) section of our news archive lend support to the idea that foodborne polyphenol-type antioxidants aid heart and overall health: "[Women's Heart-Attack Risk Axed by Antioxidants](#)" "[Food-Borne Antioxidants](#)"

Scientists estimate that diet accounts for about one-third of the risk for cancer, with fruits and vegetables being protective ... although the results of population studies have been mixed (Baena Ruiz R et al. 2013).

The link between produce-rich diets and reduced heart risk is even clearer ... see our sidebar, “Foodborne antioxidants and heart health”.

As researchers from Boston’s Northeastern University wrote three years ago, “The strongest and most consistent protective associations [between nutrition and risk for coronary heart disease] are seen with fruit and vegetables, fish, and whole grains.” (Bhupathiraju SN et al. 2011).

[Affirmed as Anti-Aging Allies](#)”
“[Cocoa Antioxidants Aid Arteries in Clinical Trial](#)”
“[Extra Virgin Olive Oil Confirmed as Best Cardiac Prevention Choice](#)”
“[Berries May Slash Women’s Heart Risk](#)”.

Now, two separate international studies suggest that foodborne antioxidants aid heart health and extend lives.

It’s perfectly plausible that polyphenols would aid heart health and lengthen life ... they reduce blood pressure, oxidation, and inflammation, and improve artery health and blood fat profiles.

We should note that it’s inaccurate to use the term “antioxidants” in reference to polyphenols and other plant compound, which only exert direct antioxidant effects in test tube experiments.

Instead, their effects in the body are indirect and related to their influence on our genes. For more on that topic, see our sidebar, “The truth about “antioxidants” in plant foods”.

Studies focused on foodborne antioxidants' roles in heart health and longevity

Encouraging news comes from two epidemiological studies ... novel findings that bolster prior indications that plant-rich diets enhance heart health and longevity.

Study #1: Foodborne antioxidants and heart risk

This study employed data collected as part of the international PREDIMED – Prevencion con Dieta Mediterranea – project (Tresserra-Rimbau A et al. 2014).

The truth about “antioxidants” in foods

The polyphenol and carotenoid compounds in whole plant foods are commonly called “antioxidants” because they behave that way in test tube experiments.

But in general, these health allies do not exert direct antioxidant effects in the body... at least not to a very substantial extent.

Instead, polyphenols appear to exert strong indirect effects on oxidation and inflammation via so-called “nutrigenomic” effects on gene switches (e.g., transcription factors) in our cells.

Polyphenols’ nutrigenomic effects tend to moderate inflammation and stimulate the body’s own antioxidant network ... which includes enzymes, lipoic acid, CoQ10,

Surprisingly, no previous studies had analyzed the relationship between intake of foodborne antioxidants and the risk of cardiovascular disease (CVD) in a comprehensive way.

Most foodborne “antioxidants” belong to the polyphenol family. The aim of this study was to compare volunteers’ intakes of all polyphenols – and various subgroups of polyphenols – to the risk of cardiovascular disease (CVD) or its adverse outcomes.

After comparing the health records and self-reported diets of 7,172 participants, *those with the highest intakes of flavanol-type antioxidants were 60 percent less likely to suffer heart attack, stroke, or cardiac-related death.*

In addition, the *volunteers with the highest average intakes of lignans – estrogen-like chemicals that also act as antioxidants – were associated with a 49 percent drop in CVD risk.*

According to the PREDIMED researchers, the results of prior epidemiological studies have relied on the USDA Flavonoid Database, “which captures only a subgroup of polyphenols and do not reflect the wide amount and diversity of polyphenols found in food.”

melatonin, and vitamins C and E.

The richest known food sources of polyphenols include raw (non-alkalized / non-“Dutched”) cocoa, berries, plums, prunes, tea, coffee, extra virgin olive oil, beans, and whole grains.

Extra virgin olive oil is uniquely rich in hydroxytyrosol, oleuropein, oleocanthal, and other “tyrosol esters” ... a particularly potent class of polyphenols with documented vascular and brain benefits.

Study #2: Foodborne antioxidants and longevity

Researchers from the University of Barcelona analyzed urine and health records from 807 men and women aged 65 or over from Tuscany, Italy (Zamora-Ros R et al. 2013).

The goal was to compare the participants’ polyphenol intake to their risk of death over a 12 year period.

Importantly, this was the first time that any any epidemiological or clinical study had measured the amounts of polyphenol metabolites (breakdown products) in urine samples.

And the findings linked the highest polyphenol intakes to a 30 percent reduction in risk of death.

These results affirm prior evidence suggesting that people who eat diets rich in fruit and vegetables are at lower risk of early death or major chronic diseases.

- Sources

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