

NUTRITION ACTION

HEALTH LETTER™

Still Hazy After All These Years

ANTIOXIDANTS

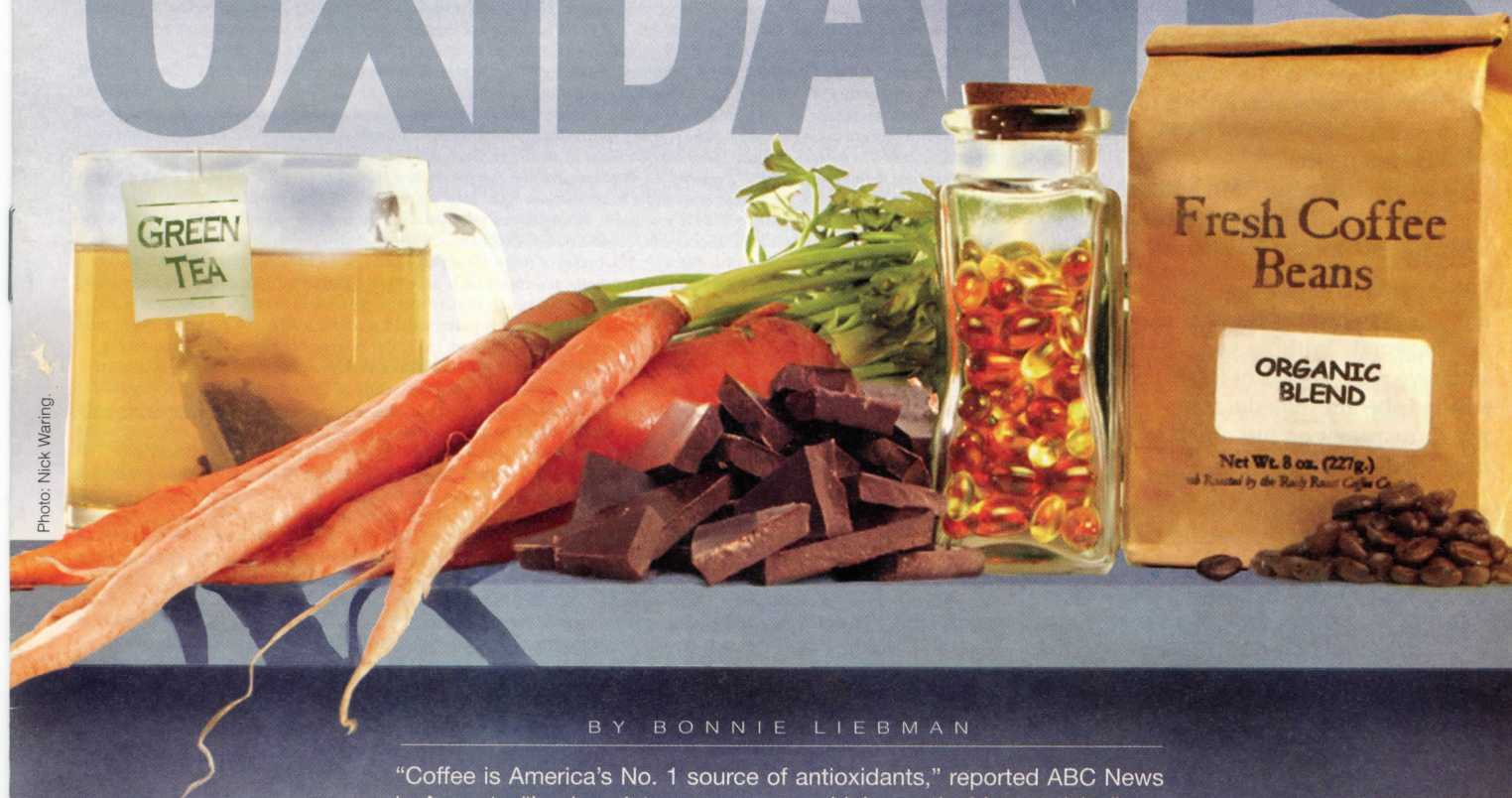


Photo: Nick Waring.

BY BONNIE LIEBMAN

"Coffee is America's No. 1 source of antioxidants," reported ABC News in August. "In chocolate, cocoa means higher antioxidant activity," announced the U.S. Department of Agriculture in April. "Healthy antioxidants!" beckons the label of Bigelow Green Tea.

In recent years, major clinical trials have found that antioxidants like beta-carotene and vitamin E failed to reduce the risk of heart disease and cancer. Yet the buzzword is showing up on more foods than ever.

"People don't like to let go of easy, simple answers," suggests Alice Lichtenstein of the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University in Boston.

And now there's a new wrinkle: antioxidants may help people with certain variations of some genes but not others. Here's the latest on what was supposed to be the cure-all, prevent-all answer to cancer, heart disease, and more.

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COFFEE

Coffee is a newcomer to the antioxidant scene. It leaped to fame with a study that crowned coffee "America's No. 1 source of antioxidants."

"Antioxidants are your army to protect you from the toxic free radicals which come from breathing oxygen and eating sugar, that start chronic diseases," study author Joe Vinson of the University of Scranton in Pennsylvania told ABC News in August. "Antioxidants help stave off cancer, heart disease, diabetes, and stroke."

But coffee leads the pack in Vinson's study in part because we drink so much of it. "If we were eating more fruits and vegetables, they would be our biggest source of antioxidants," explains Lichtenstein.

What's more, it's not clear that Vinson or others know how to measure antioxidants in food, she adds. "They measure something called antioxidant capacity in test tubes, but we don't know what that means."

Researchers have no data to show that antioxidant capacity in the lab translates into how well the body staves off oxidation. For example, Lichtenstein explains, "at high levels, some antioxidants become pro-oxidants"—that is, they promote oxidation.

More importantly, so many people drink so much coffee that studies can pick up any links with disease (whether or not antioxidants are responsible).

Though coffee doesn't seem to protect against heart disease or most cancers, some studies suggest that coffee drinkers have a lower risk of Parkinson's disease¹ and gallstones² and that people who drink four or more cups a day have a lower risk of diabetes.³ And liver cancer is less common in coffee drinkers in Japan (where the disease is more common than in the U.S.).⁴

"It's not as though someone is trying to withhold some incredible findings about coffee," says Lichtenstein.



GREEN TEA

Lipton Green tea "naturally contains protective antioxidants," says the box. "This is important because antioxidants can help the body protect itself against free radicals—molecules that can damage cells."



To look at Lipton's labels, ads, and Web site (www.teaandhealth.com), you'd think that drinking green tea is a slam dunk for anyone who wants to avoid cancer.

Yet in June, the Food and Drug Administration turned down a petition from a small company, Dr. Lee's TeaForHealth, to claim that green tea reduces the risk of cancer. Well, the FDA didn't exactly deny the request. Instead, the agency agreed to allow this not-exactly-glowing claim:

"Two studies do not show that drinking green tea reduces the risk of breast cancer in women, but one weaker, more limited study suggests that drinking green tea may reduce this risk. Based on these studies, FDA concludes that it is highly unlikely that green tea reduces the risk of breast cancer."

Of course, you'll never see that claim on a label (though you'll find a misleading distortion of it on TeaForHealth's Web site). Nor will you see a similar claim that the FDA approved for green tea and prostate cancer. And the agency decided that "there is no credible evidence supporting a relationship between green tea consumption" and colon, lung, stomach, and six other cancers.¹

Even if studies find a lower risk of, say, breast cancer in green tea drinkers, something else about those women may be protecting them. "Green tea may be an indicator of an Asian lifestyle that includes lower body weight, more exercise, lower consumption of meat, and a greater intake of fruits, vegetables, and grains," explains the National Cancer Institute's Regina Ziegler.

And a recent study suggests that green tea may lower the risk of breast cancer only in women with a less-active version of a certain enzyme.²

"Green tea may not help people with the more-active enzyme because the tea doesn't hang around long enough for you to derive the benefit," speculates researcher Anna Wu of the University of Southern California.

Interesting, but way too early to know. 🍵

¹ *Annals of Neurology* 50: 56, 2001.

² *Gastroenterology* 123: 1823, 2002.

³ *Journal of the American Medical Association* 294: 97, 2005.

⁴ *International Journal of Cancer* 116: 150, 2005.

¹ www.cfsan.fda.gov/~dms/qhc-gtea.html.

² *Cancer Research* 63: 7526, 2003.