



## Tea and Antioxidants

### Antioxidant Capacity of Tea and Common Vegetables

Cao, G., Sofic, E. and Prior, R.L. Journal of Agricultural & Food Chemistry, 44:3426-3431, 1996.

The antioxidant activity of 22 common vegetables, green tea and black tea was measured using a biochemical assay known as oxygen radical absorbance capacity (ORAC).

Investigators found green and black tea were much more effective antioxidants against peroxy radicals (a common free radical found in the body) than all of the vegetables tested, including garlic, broccoli, carrots and Brussels sprouts.

In the presence of the transition metal  $Cu^{2+}$ , green and black teas exhibited prooxidant activity, a property common to all antioxidants including vitamin C and  $\alpha$ -tocopherol. Transition metals are largely sequestered in vivo, suggesting the insignificance of the demonstrated prooxidant activity.

### Bioactive Ingredients: Antioxidants and Polyphenols in Tea

Dreosti, I. Nutrition Reviews, 54 (11):S51-S58, 1996.

This review article summarises the research-to-date on the potential health benefits of tea polyphenols. Green and black tea polyphenols are strong antioxidants in vitro, stronger, in fact, than many well-known antioxidants including vitamin C, tocopherol, glutathione, and mannitol. Several animal and human studies suggest tea polyphenols are at least partly absorbed in the body. While the data for cancer are more equivocal, epidemiological evidence demonstrates a relatively consistent protective association between tea drinking and heart disease.

### The Contribution of Plant Food Antioxidants to Human Health

Ramarathnam, N., et al. Trends in Food Science & Technology, 6: 75-82, 1995.

This article reviews the various antioxidant components found in plant foods, including tea, and provides information about their biological activity, functionality and potential health benefits. A brief summary of findings linking the antioxidant compounds in tea to decreased risk of certain diseases is provided, along with in vitro test results conducted by the authors that showed that green tea possesses strong antioxidant effects. Animal studies using black tea also show it is effective in protecting against oxidative damage caused by free radicals. Additional in vivo research is needed to confirm these findings.

Informação destinada apenas a profissionais de Saúde e Nutrição.

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Para mais informações, contacte o  
Centro de Informação LIPTON CHÁ & SAÚDE  
Lg. Monterroio Mascarenhas, 1  
1070 – 184 Lisboa  
Tel. 800 20 29 96  
Visite-nos em WWW.LIPTON.PT