# Nutrition and Heath Infor Sheet

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## Some Facts About Catechins

#### What are catechins?

• Catechins are phytochemical compounds found in high concentrations in a variety of plant based foods and beverages including red wine, broad beans, black grapes, apricots, strawberries, apples, blackberries, cherries, pears, raspberries, chocolate and tea (1).

#### Are there beneficial effects associated with consumption of catechins?

• Consumption of catechins has been associated with a reduced risk of cardiovascular disease, and improved bone health (1,2).

There seems to be a lot of media hype around red wine, chocolate, and tea. Are these really "super foods"?

• Red Wine



- Current research has found that consumption of red wine is associated with reduced risk of cardiovascular disease (3) and lung (4) and prostate cancer (5). The research with respect to lung and prostate cancer is limited.
- The American Cancer Society recommends limiting consumption of alcoholic beverages and the American Heart Association does not recommend consumption of alcohol to reduce risk of cardiovascular disease.
- If adults choose to drink alcoholic beverages, the Dietary Guidelines 2005 recommends they do so in moderation.
- Moderation is considered 1 drink (defined as 12 oz. beer, 4 oz. of wine, 1.5 oz. of 80-proof spirits, or 1 oz. of 100-proof spirits) per day for women and 2 drinks per day for men (6).

• Chocolate

- Current research has found that consumption of chocolate is associated with a reduction in risk factors for cardiovascular disease (7).



- The Dietary Guidelines for Americans 2005 recommends that the average person consumes only 267 "discretionary calories" (added fats and sugars) daily (6).
- In light of current chocolate research, it may be beneficial to include a small piece of dark chocolate (equal to 30 kcals) as part of your daily discretionary calorie allotment.

- Tea
  - Current research supports that consumption of tea is associated with decreased risk of cardiovascular disease (8) and improved bone health (2).



 In light of these findings, replacing a daily cup of coffee or caffeinated soda with a cup of unsweetened tea may prove to be beneficial to overall health, but no specific recommendations regarding tea consumption can be made.



#### References:

- 1. Williamson G, and Manach C. Bioavailability and bioefficacy of polyphenols in humans. II. Review of 93 intervention studies. *Am J Clin Nutr*, 2005; 81: 243S-255S.
- 2. Devine A, et al. Tea drinking is associated with benefits on bone density in older women. *Am J Clin Nutr*, 2007; 86: 1243-7.
- 3. Peregrin T. Wine--a drink to your health? J Am Diet Assoc; 2005; 105: 1053-4.
- 4. Ruano-Ravina A, et al. Type of wine and risk of lung cancer: a case-control study in Spain. *Thorax*; 2004; 59: 981-5.
- 5. Schoonen WM, et al. Alcohol consumption and risk of prostate cancer in middle-aged men. *Int J Cancer*, 2005; 113: 133-40.
- 6. United States Department of Health and Human Services. *Dietary Guidelines for Americans*. Washington, D.C.: United States Department of Agriculture, 2005.
- 7. Taubert D, et al. Effects of low habitual cocoa intake on blood pressure and bioactive nitric oxide: a randomized controlled trial. *J Am Med Assoc*; 2007; 298: 49-60.
- 8. Scalbert A, et al. Dietary polyphenols and the prevention of diseases. *Crit Rev Food Sci Nutr*, 2005; 45: 287-306.

### \* Production of this material was supported by a grant from the Vitamin Cases Consumer Settlement Fund, created as a result of an antitrust class action. One of the purposes of the fund is to improve the health and nutrition of California consumers.

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