

Some Red Wine Better for You Than Others

French Reds May Provide More Heart-Healthy Benefits

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Feb. 4, 2003 -- Wine snobs unite -- a new study shows there may be a good reason why some French red wines are better than others at providing healthy benefits for your heart.

Although many studies have suggested that moderate consumption of wine can lower your risk of heart disease, relatively little is known about what exactly is behind these benefits or why certain wines might be "healthier" than other types of wine or alcoholic beverages.

But a new study, published in the Feb. 5 issue of the *Journal of the American College of Cardiology*, takes a novel, test tube-like approach in attempting to explain why.

German researchers grew cells in the lab from human umbilical cords and soaked them in solutions of six French red wines, three German red wines, pure alcohol (ethanol -- rubbing alcohol), or nothing at all and analyzed how the cells responded.

They found that some of the wines were able to increase both the amount and activity of an enzyme that helps protect blood vessels from hardening (atherosclerosis), a process that can lead to high blood pressure and heart disease. This enzyme, called endothelial nitric oxide synthase (eNOS), increases levels of nitric oxide, which helps lower blood pressure and slow plaque formation among other benefits.

Some French red wines had as much as quadruple the amount of the enzyme compared to the teetotaler cells, and the German wines had only a modest effect.

"We think it's a number ¼ of ingredients in red wine that do this," says Ulrich Förstermann, MD, PhD, in a news release. He says other compounds, such as polyphenols that are found in grape skins and are found in higher amounts in red wines than whites might also play a role in providing heart-healthy benefits.

Although pouring wine into a test tube with cells bears little resemblance to sipping a well-aged Bordeaux at dinner, researchers say their findings shed light on the results of several studies that have shown that the French have lower rates of heart disease despite their love of high-fat foods.

In an editorial that accompanies the study, Robert A. Vogel, MD, of the University of Maryland Hospital in Baltimore, says the study provides an interesting explanation for the differences in the findings of American versus European studies on the health benefits of wine.

In general, Vogel says European studies have found that certain red wines provide more healthy benefits for the heart than other alcoholic beverages. But American studies have shown little variation in benefits between different types of wine or other alcoholic beverages.

Although it's tempting to latch on to a single process that might explain the complex relationship between wine consumption and heart health, Vogel says it's still too early to draw any conclusions from this simple study.

"The recent sobering experiences with hormone replacement [HRT] and antioxidant vitamin therapy suggest that the red wine story may be as complex as a classic vintage," writes Vogel.