

Comparison of effects of red wine versus white wine on hormones related to breast cancer risk

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Aromatase inhibitors (AIs) prevent the conversion of androgens to estrogens, and could play a role in the development of breast cancer. This study of 36 pre-menopausal women consisted of a cross-over intervention trial to determine if there were differences between red wine and white wine in their effects on AIs. Subjects sequentially consumed eight ounces of red wine, followed by white wine (or vice versa), each beverage for a one-month period. The investigators concluded that red wine, but not white wine, was associated with significant effects on some indices of estrogen metabolism; free testosterone and luteinizing hormone were increased, but no significant differences were noted in estrogen levels.

Forum reviewers considered the results interesting and that they contribute to our understanding of the relation of wine to hormonal levels. On the other hand, they were concerned about methodological problems, including a lack of [baseline data](#) and variations in the timing during the menstrual period of blood sampling (which could affect [estrogen levels](#)). Also, no significant effect of the interventions was seen on blood levels of estradiol.

Further, the Forum thought that it should be pointed out that data are inconsistent on the relation of red [wine consumption](#) to the risk of breast cancer; many studies do not show beverage-specific effects on risk. More research will be needed to determine if the polyphenols in red

wine can play a role in lowering the risk of breast cancer.

More information: Shufelt C, Bairey Merz CN, Yang YC, Kirschner J, Polk D, Stanczyk F, Paul-Labrador M, Braunstein GD. Red versus white wine as a nutritional aromatase inhibitor in premenopausal women. *J Women's Health*, 2011; [DOI: 10.1089/jwh.2011.3001](https://doi.org/10.1089/jwh.2011.3001)

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