

# Alcohol, Wine, and Risk of Epithelial Ovarian Cancer

Penelope M. Webb<sup>1</sup>,  
David M. Purdie<sup>1</sup>,  
Christopher J. Bain<sup>2</sup> and  
Adèle C. Green<sup>1</sup>

+ Author Affiliations  
2004 13; 592

Cancer Epidemiol Biomarkers Prev April

<sup>1</sup>Queensland Institute of Medical Research, Brisbane, Queensland, Australia and <sup>2</sup>School of Population Health, University of Queensland, Brisbane, Queensland, Australia

Requests for reprints:

Penelope M. Webb, Queensland Institute of Medical Research, PO Royal Brisbane Hospital, Brisbane, Queensland 4029, Australia. Phone: 61-7-3362-0281; Fax: 61-7-3845-3502. E-mail: pennyW@qimr.edu.au

## Abstract

Moderate alcohol intake can influence sex hormone levels and affect ovarian function as well as increasing breast cancer risk. This suggests that alcohol might also influence ovarian cancer risk. We have evaluated this among 696 Australian women with histologically confirmed epithelial ovarian cancer and 786 cancer-free control women, selected at random from the electoral roll. Sociodemographic information and a detailed reproductive history were collected in a face-to-face interview, and information about diet and alcohol consumption was obtained from a food frequency questionnaire. Logistic regression was used to calculate adjusted odds ratios (OR) and 95% confidence intervals (95% CI). **Overall, 59% of women drank <1 standard drink/week and only 5% of cases and 8% of controls drank an average of ?2 standard drinks/day. Compared with nondrinkers, the OR for women who drank an average of ?2 standard drinks/day was 0.49 (95% CI = 0.30–0.81).** This effect did not vary for the different subtypes but was restricted to wine (OR = 0.56, 95% CI = 0.33–0.93 for ?1 glass/day versus nondrinkers) with **no effect for beer (OR = 1.26, 95% CI = 0.65–2.46) or sherry/spirits (OR = 1.07, 95% CI = 0.59–1.95).** Combining our results with the six previous population-based studies gave a pooled OR of 0.72 (95% CI = 0.54–0.97) for the highest alcohol intake group versus nondrinkers. These data suggest that alcohol does not increase risk of ovarian cancer. In this Australian population, the inverse association with alcohol was due solely to wine consumption and so may be a consequence of antioxidants and/or phytoestrogens in wine rather than the alcohol itself.