



For more information please email [Helena.Conibear@aim-digest.com](mailto:Helena.Conibear@aim-digest.com) or [Alison.Rees@aim-digest.com](mailto:Alison.Rees@aim-digest.com)

## 'Policy and Action for Cancer Prevention Food, Nutrition, and Physical Activity: a Global Perspective' report from the World Cancer Research Fund

The World Cancer Research Fund (WCRF)/American Institute for Cancer Research (AICR) has published a Policy Report – 'Policy and Action for Cancer Prevention' – which sets out changes that can be made at all levels of society to reduce the number of cancer cases. The report includes estimates of the proportion of cancer cases that could be prevented through diet, physical activity and weight management.

A chapter is dedicated to alcohol and cancer and finds evidence for increased cancer risk as consumption level increases for some cancers.

The Panel judges that alcoholic drinks are or may be a cause of various cancers, irrespective of the type of alcoholic drink. The causal factor is ethanol. There is no significant evidence that alcohol protects against any cancer. The extent to which alcoholic drinks are a cause of various cancers depends on the amount of alcohol drunk.

The report accepts the polyphenolic content of wines and beers and assesses the calorific contribution of the drinks to diet by percentage.

The relevant chapter can be viewed via: [http://www.dietandcancerreport.org/downloads/chapters/chapter\\_04.pdf](http://www.dietandcancerreport.org/downloads/chapters/chapter_04.pdf)

### Extracts from the report

In general the The Panel decided that the evidence on food, nutrition, and cancer is generally most persuasive for foods rather than for specific nutrients or other food constituents; and that the evidence from epidemiological and experimental studies in this field, usually undertaken to address questions about cancers of specific or related sites, is most usefully synthesised in terms of foods and drinks. 'The result is not perfect. There is no single, ideal way of categorising the evidence on food and nutrition. But an approach emphasising foods and drinks is consistent with the generally accepted view that food-based dietary guidelines and recommendations are particularly valuable as a foundation for policies designed to improve public health', state the authors.

The pattern that emerges, though different in some important respects, is largely similar to that based on the evidence gathered in the mid-1990s, although the confidence with which various exposures are judged to cause or protect from cancer has sometimes changed.

The Panel judges as follows:

### Beers

There are many varieties of beer, with different compositions. Their alcohol content ranges from around 3 to 7 per cent by volume; beers generally contain a variety of bio available phenolic and polyphenolic compounds, which contribute to the taste and colour, many of which have antioxidant properties.

Beer is also a source of magnesium, potassium, riboflavin, folate, and other B vitamins.

### Wines

The composition of wine depends on the grape varieties used, as well as the growing conditions and the wine-making methods, which may vary between vineyards. The alcohol content ranges from around 9 to 15 per cent by volume. Red wines contain high levels of phenolic and polyphenolic compounds (up to a total of around 800–4000 mg/l), particularly resveratrol, derived from the grape skins. Like those in beer, these phenolic compounds add taste and colour. White wines contain fewer phenolics. Red wine has been shown to have antioxidant activity in laboratory experiments. Wine also contains sugars (mainly glucose and fructose), volatile acids (mainly acetic acid), carboxylic acids, and varying levels of calcium, copper, iron, magnesium, potassium, and vitamins B1, B2, B6, and C.

Worldwide, alcoholic drinks supply an average of 2.3 per cent of total dietary energy. This ranges from around 10 per cent in some northern European countries, to (as recorded) practically zero in Islamic countries. Average consumption is nearly four times higher in high-income compared with low-income countries, and tends to be highest in Europe, North America, and Oceania. Consumption varies within countries: many

people do not consume alcoholic drinks, some drink occasionally and others consume 15–25 per cent or more of their dietary energy as alcohol.

### Colorectal cancer

The report finds ‘There is ample and generally consistent evidence from cohort studies. A dose-response is apparent. There is evidence for plausible mechanisms. The evidence that consumption of more than 30 g/day of ethanol from alcoholic drinks is a cause of colorectal cancer in men is convincing, and probably also in women’.

### Breast cancer

‘Most of the 22 case-control studies that reported on all age breast cancer and total alcoholic drinks showed increased risk for the highest intake group when compared to the lowest, which was statistically significant in seven studies. A few studies showed decreased risk, none was statistically significant. Meta-analysis was possible on 10 case-control studies reporting on breast cancer at all ages, giving a summary estimate of 1.05 (95% CI 1.03–1.07) for an increment of five drinks /week. 19 case-control studies investigated alcoholic drinks. Most showed increased risk for the highest intake group when compared to the lowest, which was statistically significant in six.

There is an interaction between folate and alcohol affecting breast cancer risk: increased folate status partially mitigates the risk from increased alcohol consumption.

A dose-response relationship is apparent. There is robust evidence for mechanisms operating in humans.

The evidence that alcoholic drinks are a cause of premenopausal and postmenopausal breast cancer is convincing at higher levels of consumption. No safe threshold was identified’.

### Liver cancer

‘There is generally consistent evidence from both cohort and case-control studies that a dose-response relationship is apparent, ie the more you drink, the higher your risk, with little evidence of increased risk at 1 drink a day. Alcohol is a cause of cirrhosis that predisposes to liver cancer, but the factors that determine why some people are susceptible to cirrhosis are not known. High consumption of alcoholic drinks are a probable cause of liver cancer. No safe threshold was identified’.

### Kidney cancer

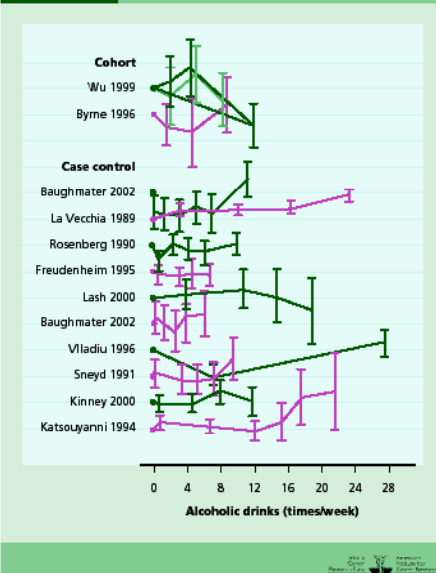
Some evidence of protective effect at moderate levels of consumption.

### Conclusions

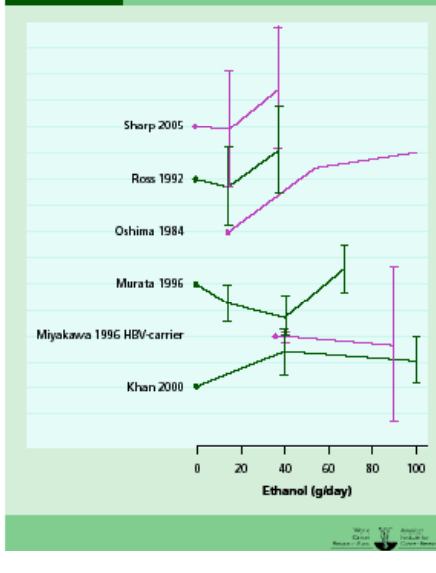
The Panel concludes: ‘Evidence that alcoholic drinks of any type are a cause of various cancers has, on the whole, strengthened. The evidence that alcoholic drinks are a cause of cancers of the mouth, pharynx, and larynx, oesophagus, colorectal (men), and breast is convincing. They are probably a cause of colorectal cancer in women, and of liver cancer. It is unlikely that alcoholic drinks have a substantial adverse effect on the risk of kidney cancer’.

The relevant chapter of this report can be viewed via: [http://www.dietandcancerreport.org/downloads/chapters/chapter\\_04.pdf](http://www.dietandcancerreport.org/downloads/chapters/chapter_04.pdf)

**Figure 4.8.14** Alcoholic drinks and breast cancer; cohort and case-control studies: dose response



**Figure 4.8.21** Ethanol and liver cancer; cohort studies: dose response



**Figure 4.8.11** Ethanol and colon cancer incidence; cohort studies: dose response

