



Alcohol and Cancer

Information for Health Professionals

WHAT YOU NEED TO KNOW

The International Agency for Research in Cancer has recognised alcohol as a **Group 1 Carcinogen** (the highest carcinogen rating) since 1988¹.

The World Cancer Research Fund (WCRF) has concluded that there is *convincing* evidence that alcohol is a cause of cancer of the mouth, pharynx, larynx, oesophagus, colorectum (in men) and breast, and *probable* evidence that alcohol increases the risk of colorectal cancer (in women) and liver cancer².



There is no safe level of alcohol consumption in regard to cancer risk. The more you drink and the more often you drink, the greater the risk.

To lower your risk of alcohol-related disease, including cancer, the National Health and Medical Research Council (NHMRC) recommend that healthy men and women should have **no more than two standard drinks on any day**³.

There is no evidence that alcohol consumption decreases your risk of cancer. Furthermore, there is no difference between types of alcoholic beverage (e.g. wine, beer and spirits).

The National Heart Foundation (NHF) also advises that health professionals should not recommend that people use red wine or any other alcoholic drink for the prevention and treatment of cardiovascular disease.

The NHF also found a lack of consistent evidence to confirm that antioxidants in red wine can either prevent cardiovascular disease or be beneficial after a heart attack⁴.

THE FACTS AND FIGURES

In Australia it is estimated that, 2997 new cases of cancer and 1376 deaths are directly caused by alcohol consumption each year.⁵

In 2008-09, 825 Western Australians were admitted to hospital as a result of alcohol-related cancer, which resulted in 4642 bed days⁶.

Each year in WA alone, more than 100 people die as a result of alcohol-related cancers⁷.

Alcohol-related cancer can develop in many different parts of the body.

Cancer site	Male	Female	Total
Head and neck (oropharynx, oesophagus and larynx)	511	148	659
Liver	225	86	311
Bowel	479	410	889
Female breast	-	245	245
TOTAL	1215	889	2104

Table One: Number of cancer deaths attributable to alcohol in Australia (2006)⁸

HOW DOES ALCOHOL INCREASE THE RISK OF CANCER?

Alcohol consumption contributes to the risk of cancer in a number of ways including:

- Alcohol is thought to have systemic and local effects on the body. The systemic effects are thought to be stronger than the local effects.
- Alcohol may irritate epithelium or increase the penetration of carcinogens across mucosa as it comes into direct contact with the tissue⁹. This could be through increasing the solubility of carcinogens entering the oral mucosa or perhaps an increased permeability of the oral mucosa. A decreased salivary flow in the mouth of heavy drinkers could also lead to a build up of carcinogens⁹.
- Alcoholic drinks contain a number of contaminants including nitrosamines, polycyclic aromatic hydrocarbons and mycotoxins, as well as a variety of other compounds¹⁰.
- Alcohol is thought to have an immunosuppressive effect. However, if this was the case, it is expected that there would be a higher incidence of certain types of cancer where infection is a causal factor^{11,12}.
- Alcohol may increase the risk of breast cancer as high levels of consumption may increase serum estradiol concentrations¹³.
- Ethanol may cause cancer through the formation of acetaldehyde. Acetaldehyde is the primary metabolite of ethanol, which when bound to DNA, has been shown to be mutagenic. Therefore, alcohol can be regarded a co-carcinogen by facilitating tumour growth, rather than being an initiator¹⁴.
- Heavy drinkers frequently have poor dietary habits and harmful alcohol consumption may affect the liver's ability to deal with toxic or potentially carcinogenic compounds⁹.

WHAT IS A STANDARD DRINK?

A standard drink contains 10 grams of alcohol. This is equal to:

285 mL of full strength beer

425 mL of low strength beer

100 mL of wine (red and white)

30 mL of spirits

275 mL bottle of ready-to-drink beverage (5% alcohol content)

For more information on standard drinks, visit alcohol.gov.au¹⁵



AUSTRALIAN GUIDELINES TO REDUCE HEALTH RISKS FROM DRINKING ALCOHOL

In March 2009, the National Health and Medical Research Council released the *Australian Guidelines to Reduce Health Risks from Drinking Alcohol*. The 2009 Guidelines focus on health risks accumulating over a lifetime from alcohol use⁴.

The Guidelines also establish clear advice on how to minimise the harmful health consequences of regular alcohol consumption in both the short-term and the long-term (that is harm that may occur as a result of one drinking occasion and harm that may occur as a result of a longer period of drinking). There is no level of drinking that can be guaranteed to be completely safe⁴.

GUIDELINE 1

For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.

GUIDELINE 2

For healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol related injury arising from that occasion.

GUIDELINE 3A

Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking and that for this age group, not drinking alcohol is especially important.

GUIDELINE 3B

For young people aged 15-17 years, the safest option is to delay the initiation of drinking for as long as possible.

GUIDELINE 4A

For women who are pregnant or planning a pregnancy, not drinking is the safest option.

GUIDELINE 4B

For women who are breastfeeding not drinking is the safest option.

LIFESCRIPTS

Lifescrpts is a national initiative being implemented through local divisions of general practice, promoting risk factor management in general practice and primary health care services.

The Lifescrpts resources aim to make it easier for GPs and their practices to manage lifestyle-related risk factors, including harmful alcohol consumption, by providing a framework for:

- ◆ raising and discussing lifestyle risk factors with patients
- ◆ advice in the form of a written script and associated patient education and referral to other providers to support healthy lifestyle.

For more information, visit www.health.gov.au¹⁶



FOR MORE INFORMATION

Helpful websites:

www.alcoholthinkagain.com.au

www.cancerwa.asn.au

www.nhmrc.gov.au

www.alcohol.gov.au

Helpful phone numbers:

Alcohol and Drug Information Service

(08) 9442 5000

1800 198 024

Cancer Council Helpline

13 11 20

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Government of Western Australia
Drug and Alcohol Office

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