

# ALCOHOL AND INJURY

Recent studies show that injury and death due to trauma are amongst the most important consequences of alcohol use. Examples of incidents include: vehicle, cycling and pedestrian-related accidents; falls; fires; drowning; sports and recreational injuries; alcohol poisoning, overdose, suffocation, and inhalation of vomit; assault and violence; intentional self-harm.

## TYPES OF INJURIES OR DEATH:

- from **accidents**, by the effects of alcohol on such abilities as reaction time, reasoning, co-ordination, care and judgement;
- from **violence**, by the effects of alcohol on factors such as self-control, impulsivity, and the capacity to resolve conflicts in non-violent ways; alcohol appears to be involved in about half of all violent crime and for men already inclined towards domestic violence, alcohol increases the likelihood of violence; and
- from **self-harm**, with heavy drinking as a major risk factor for suicide and suicidal behaviour among both young people and adults. About one third of all self-inflicted injuries and suicides are linked to alcohol. The association between alcohol consumed in a high-risk manner and suicide is particularly strong in teenagers and among Aboriginal and Torres Strait Islander people.

## THE LIKELIHOOD OF INJURY AND DEATH FROM ALCOHOL

About 40% of people aged 14 years or older consume alcohol at a level, at least once in a 12-month period, that puts them at risk of harm in the short-term. Risk of injury or death starts to increase at relatively low levels of alcohol intake and it increases as the level of intake increases (the risk increases greatly after three to four drinks). Additionally, the more often you drink, the greater the risk of eventually experiencing an injury or death related to alcohol. The risk increases more for people whose level of consumption varies significantly from time to time, and the risk is highest for those who occasionally drink much more than their usual amount. Less than four drinks could be risky in young people, those with health issues, the elderly, and those on medication.

- There is a three-fold increase of injury for males and eight-fold increase for females associated with drinking 4 or more drinks on one occasion.
- Alcohol is associated with 44% of fire injuries, 34% of falls and drowning, 30% of car accidents, 47% of assaults, 34% of homicides, 32% of suicides, 16% of child abuse, and 7% of industrial machine accidents.
- Alcohol is the main cause of deaths on Australian roads.
- About one third of male motor vehicle deaths and over 10% of female deaths are due to alcohol.
- For pedestrians, alcohol accounts for around 40% of male and 17% of female deaths - around half of these deaths are in those aged 15–24 years.

- The risk of injury under the influence of alcohol is greatest amongst 18–24 year olds – this is associated with higher risk taking pursuits in this age group.
- Young people have greater vulnerability to alcohol than adults do. As well as usually being physically smaller, they lack experience of drinking and its effects. The loss of inhibitions and decision-making skills place young people at particular risk of violence, accidents, sexual coercion and unprotected sex. One in thirteen deaths in young people are attributable to alcohol at a rate of one per week (and sixty hospitalisations per week).
- In older people, the risk of falling increases with older age, while driving skills may be affected by problems such as visual loss and slowed reaction time. Alcohol can increase the risks in both of these areas.

The risks associated with drinking depend not only on how much a person drinks, but also on the rate of drinking, the environment, the drinker's expectations of the effects of alcohol (e.g. including using alcohol as an excuse for unacceptable behaviour) and what the person is doing during and after drinking. Eating while drinking helps to reduce intoxication and, therefore, the risk of harm. The risk of injury, violence, depression and suicide attempts are all influenced by the setting in which people are drinking.

## COMBINING ALCOHOL WITH OTHER DRUGS

It can be very dangerous, even lethal, to mix alcohol with medications or recreational drugs. Alcohol is a sedative drug that dampens activity in the brain and when combined with other drugs that are classified as sedatives or depressants can lead to stupor, coma and death.

Mixing alcohol with stimulant drugs can lead to highly aroused and prolonged (less likely to get drowsy or fall asleep) states of intoxication with very unpredictable behaviour. A growing trend amongst younger drinkers is to consume caffeinated alcoholic beverages. This can lead to extreme binge drinking because of a reduced perception of intoxication, increasing the risk of adverse outcomes from impulsive risky behaviour. Many will not even recognise caffeine as a stimulant drug.

## RECOMMENDED CONSUMPTION LEVELS FOR LOW-RISK DRINKING

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**.

Drinking **no more than four standard drinks on a single occasion** reduces the risk of alcohol-related **injury** arising from that occasion.

For children and young people under 18 years of age, not drinking alcohol is the safest option.

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

Further reductions in the lifetime risk of alcohol-related disease or injury can be achieved by reducing the number of occasions of drinking across a lifetime, for example through regular alcohol-free days.

Very low levels of alcohol can affect judgement and performance. Therefore, it is recommended that not drinking is the safest option to avoid the risk of endangering the lives of the drinker and/or others in situations where drinking increases the immediate risk of harm, including the supervision of children.

You can find more information on the recommended levels of alcohol consumption in the Guidelines for Alcohol Consumption Fact Sheet.

**Adapted from** Australian Department of Health and Ageing, Australian Alcohol Guidelines Fact Sheets

[www.alcoholguidelines.gov.au](http://www.alcoholguidelines.gov.au)

**Guidelines source:** National Health and Medical Research Council (NHMRC) (2009). *Australian Guidelines to Reduce Health Risks from Drinking Alcohol*, Commonwealth of Australia, Canberra.

**Other sources:** Australian Bureau of Statistics (2006). *Alcohol Consumption in Australia: A snapshot, 2004–05*. Cat 4832.0.55.001 Gmel, G., & Rehm, J. (2003). Harmful alcohol use. *Alcohol Res Health*, 27(1), 52–62.

Australian Institute of Health and Welfare (2011). 2010 National Drug Strategy Household Survey report, *Drug Statistics Series*, No. 25.

Heinz, A., et al (2013). The combined effects of alcohol, caffeine, and expectancies on subjective experience, impulsivity, and risk-taking. *Experimental and Clinical Psychopharmacology*, Vol 21(3), 222-234.

Stockwell T, McLeod R, Stevens M, Phillips M, Webb M and Jelinek G (2002). Alcohol consumption, setting, gender and activity as predictors of injury: a population-based case-control study. *Journal of Studies on Alcohol*, 63 (33): 372–379.

**Alcohol increases the risk of injury or death from accidents, assaults and self-harm**

## YOUR HEALTH AND ALCOHOL