

## 1.0 | Fact sheet 1: Facts about alcohol

### What is alcohol?

Alcohol is an intoxicating substance. The active ingredient in drinks containing alcohol is ethanol. This is produced through the fermentation of grains, vegetables and fruits, which changes sugars into ethanol<sup>[1]</sup>. In its purest form, alcohol is colourless and has no taste. It is only during the manufacturing process (when other ingredients are added to the ethanol) that alcoholic drinks begin to vary in taste, smell and colour.

Often, alcohol is mistaken as a stimulant drug. This is because its consumption may initially cause the drinker to feel relaxed or even excited, depending on the social situation they are in and other environmental factors. For these reasons, alcohol is the most commonly used mood-changing drug in Australia<sup>[1]</sup>. However, alcohol is actually a depressant drug. When consumed, it depresses the actions of the central nervous system, including heart rate and breathing rate. Concentration, coordination, balance and judgement are also adversely impacted.

### How is alcohol absorbed in the body?

Alcohol is absorbed into the bloodstream through the stomach and the small intestine. It is then distributed throughout the body, including to the brain. After initial consumption, it only takes a few minutes for alcohol to reach the brain<sup>[1]</sup>. Eating food before or while drinking will slow the absorption of alcohol, it will not prevent a person from becoming intoxicated. However, the rate at which intoxication occurs may be reduced.

### How is alcohol eliminated from the body?

The elimination of alcohol from the body takes time. Engaging in such behaviours as exercise, drinking coffee, eating greasy foods or vomiting will not speed up this process. While approximately 10% of alcohol will leave the body through urine and sweat, the majority of alcohol is broken down by the liver. It is estimated that the liver can break down one standard drink each hour<sup>[1]</sup>.

### What are the short-term and long-term effects of alcohol consumption?

Alcohol can cause a number of short and long-term health effects to the drinker. Short-term effects include:

- relaxation;
- reduced concentration and coordination;
- increased confidence and a lowering of inhibitions;
- blurred vision and slurred speech;
- mood changes, including aggression or depression;

- headaches, nausea and vomiting;
- sleepiness; and
- coma and even death<sup>[1]</sup>.

In the long-term, adverse effects of alcohol consumption may include:

- eating a poor diet, which causes overweight and obesity, or malnutrition;
- a weakened immune system and skin conditions;
- damage to organs, including the liver, pancreas, stomach, brain and heart;
- sexual impotence and a reduction in fertility;
- reduced concentration and a poor short-term memory;
- mental health conditions such as anxiety and depression;
- social problems, including family issues, reduced work performance and financial problems<sup>[1]</sup>.

### Is it safe to mix alcohol with other drugs?

Consuming alcohol in tandem with other drugs (including illicit drugs, prescription medications or over-the-counter medicines) is not safe. The action of combining drugs is called polydrug use. Combining alcohol with other depressant drugs can make it more difficult for a person to control their actions and react to dangerous situations. Also, the central nervous system is further depressed, which may result in cardiac or respiratory arrest. Combining alcohol with stimulant drugs (including caffeine) can make it more difficult for a person to know when they are intoxicated.



### What is binge drinking and is it dangerous?

Binge drinking occurs when a person drinks a large quantity of alcohol over a short period of time. The health risks associated with binge drinking include: damage to the bowel; depression of the central nervous system; hangovers, which include headaches, nausea, shakiness and vomiting; and an increased risk of harm from dangerous situations, such as drink driving, violence and coercive or unprotected sex<sup>[2]</sup>.

Binge drinking may also result in alcohol poisoning. When a person's blood alcohol concentration rises to a dangerous level, they may have a seizure, lose consciousness and fall into a coma. Death may result<sup>[2]</sup>. Emergency medical assistance should be sought if any of the following signs and symptoms is present:

- the person is unconscious and cannot be awakened by pinching, prodding or shouting;
- the person's skin is cold and clammy, pale or bluish in colour;
- the person is breathing very slowly; and/or
- the person has been vomiting but is not waking up<sup>[2]</sup>.

### What is alcohol dependence?

People who consume alcohol regularly and at high levels may become dependent on the drug. Dependence can range from slight (i.e. finding it hard to stop drinking after only a couple of beverages) to severe (i.e. drinking that results in physical, psychological and social harms). Severe dependence is characterised by the drinker experiencing withdrawal symptoms if alcohol is not consumed<sup>[3]</sup>. Those dependent on alcohol should seek medical assistance.

## References

1. National Drug and Alcohol Research Centre. NDARC fact sheet [alcohol] [Online]. No year [cited 2009 October 16]. Available from URL: [ndarc.med.unsw.edu.au/NDARCWeb.nsf/resources/Alcohol1/\\$file/ALCOHOL.pdf](http://ndarc.med.unsw.edu.au/NDARCWeb.nsf/resources/Alcohol1/$file/ALCOHOL.pdf).
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