

Boardworks High School Science



Alcohol Abuse

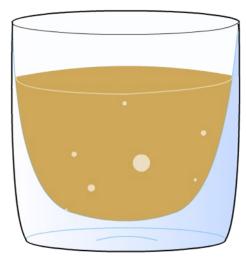


What is alcohol?



Alcohol is a family of related substances, but most commonly refers to **ethanol** – the active ingredient in alcoholic drinks.

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Alcohol is quickly absorbed into the bloodstream, where it starts to have an effect on the central nervous system.

The effects of alcohol vary from person to person and with factors such as:

- rate of consumption
- level of food/water intake
- age and gender
- body weight/body fat.



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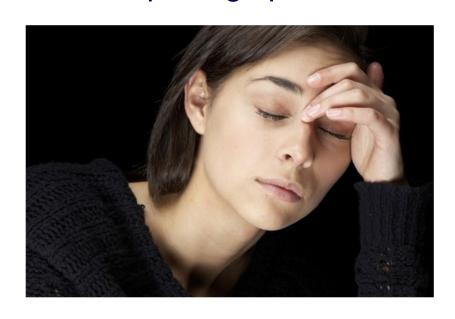
The short-term effects of alcohol



Small amounts of alcohol cause a person to feel relaxed and less inhibited. It can therefore appear to stimulate people.

However, further consumption has a depressant effect, making reactions uncoordinated and impairing speech.

Alcohol is a diuretic, which means it causes more urine to be produced than normal. This can lead to dehydration, which contributes to a hangover!



Alcohol also makes blood vessels dilate, leading to heat loss.





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Does it matter how much you drink?





It is thought that 10-18% of patients who visit the emergency room are there for alcohol-related reasons.

Why does alcohol increase the risk of accident or injury?

Alcohol slows down reaction times, gives a false sense of confidence and affects a person's decision-making ability.

At high levels, alcohol causes vomiting, unconsciousness and can even cause breathing to stop and lead to death.





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Effects of alcohol by dose





What is the order of effects of alcohol on the body?

50mg/100ml

Uncoordinated movement and blurred vision

increasing blood alcohol concentration More self-confident and shorter attention span

Dizziness and heightened emotional state

Failure of CNS and death

Fall in respiration and heart rate

500mg/100ml

Lapses in consciousness and vomiting







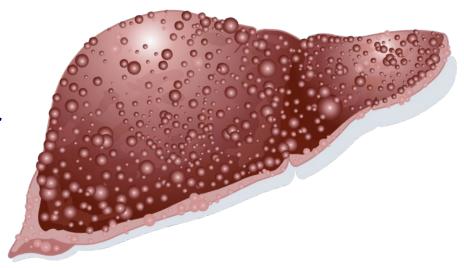


The long-term effects of alcohol



Like all drugs, alcohol is broken down, or **metabolized**, by the liver.

Over time, heavy drinking damages liver cells, causing them to produce fibrous scar tissue which blocks liver function. This is a disease called **cirrhosis**.



Heavy drinkers are also at increased risk of cancer and damage to the brain, kidneys and immune system.



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