

Acknowledgement

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The team at Drug Education Network hope you find this guide helpful. If you would like to know more about the effects of alcohol and how this changes throughout life – indeed any subject related to drugs – visit our website or contact us directly.

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"Since changing to low-alcohol wine, I am enjoying drinking and life a lot more."

Alcohol and you

Alcohol is a big part of the Australian lifestyle. Many of us drink alcohol when we socialise, to relax, and when we're feeling down. In fact, after caffeine it is the most widely used recreational drug in the country. So there are some things you should know about alcohol.

Most important is the way our relationship with alcohol changes as we age. Our eighteen-year-old body copes with drinking in a very different way to our forty-year-old body. And a seventy-year-old will find there are more complex factors that affect how the body processes alcohol.

To complicate matters, we sometimes take other drugs into our system – cold and flu medication, pain killers, antibiotics, allergy medications, cholesterol medication ... the list goes on. Our body can be a complicated chemical laboratory at times.

Our eighteen-year-old body copes with drinking in a very different way to our forty-year-old body.

There are also the physical risks which increase when we drink. You might think that it's only young people who may be injured after they've been drinking, but increasingly it is the middle-aged and elderly among us who are at risk when they drink alcohol.

The good news is that most people who drink alcohol won't ever need to seek treatment. It is important, however, to know what is safe and what is not, to make educated decisions about how often and how much you drink. We want you to understand how drinking may affect your health, and how you can drink safely for enjoyment.

This guide will help you do that. It has information about the effects of alcohol on your body throughout life and will help you to reduce the impact on your health. When you're finished reading, pass it on to friends and family so they too can make informed choices when it comes to drinking.

Drug Education Network Team

So what's the problem?

Alcohol is second only to tobacco as a preventable cause of drug-related death and hospitalisation in Australia.

Snapshot of alcohol consumption in Australia

- In 2008 the World Health Organisation ranked Australia's consumption of alcohol in the top 30 out of a total of 180 countries.
- Nearly 600 older Australians die every year from alcohol-related injury and disease. Each week in Australia four people under the age of 25 die from alcohol-related injuries.
- In 2010 nearly 25% of serious road casualties on Tasmanian roads were caused by alcohol. Among people under 30 years of age that figure was 43%.
- In 2010 20% of people aged 14 or older reported drinking alcohol at levels that exceed the recommended guidelines for lifetime harm.
- Australians are drinking more frequently as they get older –
 16% of people aged over 60 drink every day. Even drinking a moderate amount can be harmful if we don't give our liver a chance to recover.

Alcohol is a depressant drug that slows the activity of the central nervous system and the speed at which messages travel between the brain and body. It has a tranquillising effect and also acts as a mild anaesthetic.

The alcohol we drink is ethyl alcohol (there are other kinds, all very poisonous). It is made from a mixture of yeast and water fermented with grains, vegetables or fruits. The fermentation process changes natural sugars into alcohol. Beer and whisky are made from grains, wine and brandy from grapes, vodka from potatoes, cider from apples, and rum from sugar, to name just a few of the most popular alcoholic drinks.

When swallowed, alcohol passes from the stomach to the digestive tract, where it enters the bloodstream very quickly. It reaches the brain after only five minutes and blood concentrations peak throughout the body anywhere between 30 to 90 minutes later.

The rate of absorption can vary greatly. Women are at greater risk when consuming alcohol because they tend to weigh less than men, their liver size is smaller and they have less water in their bodies to dilute the alcohol consumed. Therefore, a woman's internal organs are exposed to more alcohol and to more toxic by-products that result when the body breaks down alcohol.

For this reason, women generally become intoxicated faster than men. This can lead to the development of alcohol-related problems more quickly than in men with similar drinking patterns.

Alcohol affects adolescents and the elderly in a similar way as it affects women, because they generally weigh less than a healthy adult man.

There are a number of factors that influence the impact of any drug, including alcohol, which vary from person to person.





What are the risks for me?

When we drink, our balance becomes worse, we are less alert, our reaction times are slower and our vision is blurred. Our senses are far less acute than when we're sober, and so we are far more likely to hurt ourselves (or someone else).

If you drink even a moderate amount of alcohol regularly, you risk damaging your body's organs. Regular drinking increases the risk of diseases such as liver cirrhosis, diabetes, and cancers of the mouth and throat.

But there are also other risks

- Memory problems or lapses
- Poor sleep
- Digestive upsets, including stomach inflammation
- Poor libido
- Sexual dysfunction
- Increased urination
- Mood changes

For people who have been drinking regularly over a long period of time it can be difficult to recognise some of the symptoms of poorer health that could be linked with too much alcohol.

"I enjoy a couple of glasses of red every night – it's good for my heart!"

You may have heard the debate about the health benefits of moderate drinking, for example that it is good for preventing heart disease and stroke. The World Health Organisation says the evidence is controversial. Regular exercise and a diet high in fruit and vegetables and low in saturated fat are far more important in reducing your risk of heart disease. The Mediterranean Diet recommends no more than one standard drink daily, and two alcohol-free days per week. Bear in mind that Australian wines generally contain a higher percentage of alcohol than their European counterparts.

"I believed that alcohol helps me sleep, but then I found that because of its dehydrating effect it can upset my sleep patterns. I also realised it increases my anxiety and stress, makes me snore, causes sleep apnoea and restless legs."

Women, alcohol and menopause

Alcohol reduces the body's ability to absorb calcium, which is necessary for maintaining good bone density and preventing osteoporosis. Because it is high in calories and has no nutritional value, alcohol can contribute to weight gain in menopausal women.

During menopause there is an increased risk of heart disease, high blood pressure, stroke and breast cancer. Emerging evidence suggests that drinking excessively can increase these risks even further, though why this is so is still being investigated.

As a cautionary approach during menopause ...

Enjoy
one or two
alcoholic drinks per
week. Consider this an
opportunity to adopt a
'quality over quantity'
approach.

Drink
plenty of water
before and between drinks.
This will help to counteract
the dehydrating effect of
alcohol for women who are
experiencing dry skin
from hormonal
changes.

Young people and alcohol

"I let my kids have a drink now and then, so they get used to the taste of alcohol and drink more responsibly."

In fact there is no safe level of alcohol consumption for people under the age of 18.

We used to think that letting young people have a sip of alcohol was okay. We now have information that until the age of 25 the human brain is still developing and is highly susceptible to the effects of alcohol. Consuming alcohol younger than that is linked to brain damage. We also know an early introduction to alcohol is more likely to lead to problems with alcohol later in life.

The good news is that young people in Australia are increasingly saying no to alcohol and other drugs. Now the majority of young people under 16 have not tried alcohol.

Young people respond very well to adult role models. It is up to the adults to influence the attitudes and behaviour of our young people towards drinking alcohol.

Older people and alcohol

"Surely it's the young people who are on the booze all the time?"

In 2010 the highest proportion of daily drinkers in Australia were men over the age of 70.

As we age we literally dry out; the water content of our body decreases. That means that there is less water to dilute the alcohol we drink, which results in a higher body alcohol concentration.

In short, changes in metabolism result in alcohol having a bigger impact.

The risk of injuring ourselves or of causing an accident when we drink increases with age. Two-thirds of alcohol-related hospital admissions in those over 84 years are a consequence of falls.

Getting older can mean that we take more prescription and over-the-counter medications. Our liver mass and liver blood flow both decrease. So, the overall capacity of the liver to convert some drugs to their inactive byproducts decreases.

There is one unintended consequence for some older people. They are getting caught drink driving even though they have followed the recommended drinking guidelines.

What you can do ...

- Discuss with your doctor or pharmacist the safe level of drinking for you.
- Consider drinking less than the levels set in the national guidelines (see the section on recommended drinking guidelines later in this booklet).
- If you are taking medication, reduce or stop drinking altogether in order to avoid harmful interactions.
- Drink plenty of water before and between drinks.

Many Tasmanians have a story about an old relative – let's call him Uncle Bert – who smoked and drank heavily and lived to be 98. But the fact is, there aren't too many Uncle Berts out there!

Alcohol and medications

Many people take prescribed or over-the-counter medications. More often people are being prescribed more than one medication, which can increase the chance of unpredictable interactions in the body.

For example, combining alcohol with benzodiazepines, antihistamines, sedatives, muscle relaxants and some prescription pain medications increases the depressant effect of alcohol on the central nervous system.

In Australia we are seeing increased consumption of alcohol combined with more prescriptions of pain-relieving (opioid) medications. In recent times Tasmania has seen a higher than national average rate of accidental opioid drug overdose. The combination of depressant drugs with alcohol (which also has a depressant effect) can increase this risk.

How medications work in our bodies is affected by many things. Taking another medication, including a herbal medicine, mineral or vitamin supplement, can have an effect. Even the food we eat can affect our reaction to a medication.

Alcohol is very likely to interact with a number of medications – less than one drink can affect us. With some medications it is recommended that alcohol be avoided altogether.

It is very important you consult your health practitioner or pharmacist if you are concerned about any possible alcohol-medication interactions.

Make a medicine list

If you regularly take one or more over-the-counter or prescription medications, it is a good idea to keep a list. This will keep you up to date and informed about what you're taking, and also helps your health practitioner to look after you more effectively.

For more information, contact the National Prescribing Service www.nps.org.au

When medicine interacts with alcohol

Type of medication	When used with alcohol may lead to
Antidepressants & antipsychotics (for the management of mental illness and mood disorders)	 Impaired mental skills Worsening of existing symptoms Risk of sedation, which can cause impaired coordination and breathing difficulties Dizziness Accidental overdose Reduced (or even increased) effectiveness of the medication A sudden drop in blood pressure Increased risk of liver damage
Antihistamines (for cold, flu and allergy symptoms)	 Drowsiness Increased sedative effects Dizziness Interactions tend to be more pronounced in older peopl Note that alcohol does not interfere with non-sedating antihistamines.

When medicine interacts with alcohol (continued)

Type of medication	When used with alcohol may lead to
Antibiotics (for prevention and treatment of infection)	 Nausea Vomiting Headache Convulsions Increased risk of liver disease Medication not working effectively Increased intoxicating effects of alcohol
Anti-diabetic medication (for managing the symptoms of diabetes)	 Headache Nausea Medication not working effectively, increasing risk of lower-than-normal blood sugar levels Increased levels of lactic acid in the blood (when taking Metformin)
Benzodiazepine (for anxiety, stress and insomnia)	 Decreased heart and breathing function Decreased motor skills Increased risk of overdose & death
Medicines that contain alcohol (such as cold, allergy and cough medicines, antacids & mouthwash)	Increased consumption of alcohol Drowsiness

Type of medication	When used with alcohol may lead to
Cardiovascular medication (to treat heart and circulatory system)	DizzinessFaintingReduced effectiveness of medication
Anticoagulants (to lessen the risk of blood clotting and stroke)	Increased risk of haemorrhageDecreased effectiveness of medication
Arthritis medications (for treating the symptoms of arthritis)	 Stomach upset including gastro-intestinal bleeding Stomach inflammation Increased risk of liver damage
Opioid-based pain medication (for moderate to severe pain)	 Increased risk of sedation Decreased motor skills Increased risk of overdose & death
Anti-seizure medication	 Decreased effectiveness, therefore reducing protection against seizures Increased side effects

Common over-the-counter medications that interact with alcohol

Type of medication	When used with alcohol
Paracetamol (pain relievers such as Panadol® and Panamax®)	May be dangerous for people who regularly drink alcohol; may increase the risk of an overdose even when the drug is taken at therapeutic doses. Manufacturers recommend that people who consume more than two alcoholic beverages daily consult their healthcare providers before taking this drug.
Aspirin & non-steroidal anti-inflammatory drugs (such as Ibuprofen, Nurofen®, Advil® and Aleve®)	May increase the risk of gastrointestinal bleeding. There is a higher risk for people with a history of stomach problems, liver problems, ulcers or heartburn, so it is recommended not to drink alcohol while taking aspirin.
Antacids	Combining alcohol with these types of medications may contribute to a higher blood-alcohol level, and magnify other effects of alcohol on the body.
Cold, allergy and cough medicine	The effectiveness of these medications may be severely diminished if consumed with alcohol.
Herbal medicines	Herbal medicines can have varying effects including sedating or relaxing effects on the nervous system. This may increase the sedating effect of alcohol. Combining alcohol with herbal medicines may also have unpredictable effects.

Type of medication	When used with alcohol
Weight loss supplements	May cause unpredictable reactions due to the combination of the stimulant effect of the pills and the depressant effect of alcohol. They may also cause liver damage, and increase the risk of easy bleeding.
Laxatives	Alcohol can block the effect of laxatives, increasing dehydration and potentially making symptoms of constipation worse.
Sleeping pills and sleep aids	Excessive alcohol consumption may prolong the sedative effects of these medications. There have been cases of overdose leading to death – avoid sleeping aids and pills at all times.
Vitamins and minerals	Because there are so many different vitamin and mineral formulations available the effects of combining them with alcohol are unpredictable.

Common signs and symptoms that alcohol has reacted with a medication:

- Memory trouble after having a drink
- Loss of coordination
- Changes in sleeping habits
- Unexplained bruises
- Altered sexual function/activity

- Mood swings
- Unexplained pain
- Changes in eating habits
- Trouble finishing sentences
- Trouble concentrating

These symptoms may occur for other reasons. Your health practitioner can help determine if your symptoms are the result of alcohol-medication interactions and what you can do to minimise this.

Recommended drinking guidelines

drink no more
than two standard
drinks on any day to
reduce the lifetime risk of
harm from alcohol-related
disease or injury

drink
no more than
four standard drinks
on a single occasion to reduce
the risk of alcohol-related injury
(drinking more than four
standard drinks is now
considered to be
binge drinking)

Because we are all different, someone who drinks only two standard drinks a few times a week might still suffer ill health as a result of their consumption.

Older people who drink alcohol are advised to

consider drinking
less than the levels
set in the guidelines for
the general population
(two standard drinks
in a session will likely
pose an unacceptable
risk in a frail
elderly person)

further reduce
their drinking or stop
it altogether, if they are
taking medications, in
order to avoid harmful
interactions with
those medications

consider the risk
of alcohol related brain
impairment (ARBI), brain
injury or dementia, as well as
risks of memory loss, reduced
thinking ability and
coordination (binge
drinking may lead
to ARBI)

These
guidelines have
been recommended
to minimise harm – the
less you drink the
healthier you
will be!

"But I only ever have one drink!"

You might be drinking more than you think.

What is a standard drink?

The volume of alcohol in a drink varies based on the percentage of alcohol it contains. Generally speaking, one standard drink is ...

30ml of spirit

100ml of wine

285ml of beer

The alcohol content of each type of alcohol can vary. Light beer has less alcohol than full-strength. That's why most alcohol packaging clearly states how many standard drinks the package contains.

Research shows that men underestimate standard drink sizes by 32% and women underestimate by 16%.

When someone tops up your drink, it is harder to keep track of the number of standard drinks you have.

"I know all the tricks for sobering up: have a coffee or a bacon-and-egg burger. If that doesn't work you can always stick your fingers down your throat! Or have a shower – that'll straighten you out in no time."

In fact, the liver of a healthy adult takes about one hour to remove one standard drink from the body. NOTHING can speed up this process. Older or unhealthy adults need more than an hour to process a standard drink. Australian standard drinks



Mixing diet drinks and alcohol

Mixing alcohol with zero-calorie soft drinks makes you become drunk faster than if you use regular, sugared mixers.

This is because sugar slows down the rate at which alcohol is pushed into your bloodstream. The less sugar, the faster the alcohol absorption. But choosing sugary mixers is hardly a solution as sugar presents its own health problems!

Energy drinks

"If I mix an energy drink with alcohol I don't get so drunk!"

In fact, combining energy drinks with alcohol does not remove or reduce the impact on reaction time or coordination. You are just as intoxicated as someone who does not have the energy drink, and at a higher risk of harm.

Audit – how much do I drink?

This short questionnaire is a useful tool to ponder your use of alcohol.

- How often do you have a drink containing alcohol?
- How many standard drinks do you have on a typical day? How often do you have four or more standard drinks on one occasion?
- How often during the last year have you found you were not able to stop drinking once you started?
- How often during the last year have you failed to do what was normally expected of you because of drinking?
- How often during the last year have you needed a drink in the morning to get yourself going after a heavy drinking session?
- How often during the last year have you had a feeling of guilt or remorse after drinking?
- How often during the last year have you been unable to remember what happened the night before because you had been drinking?
- Have you or someone else been injured because of your drinking?
- Has a relative, friend, health practitioner, or other health care worker been concerned about your drinking or suggested you cut down?

If these questions have raised any concerns, you may find it helpful to discuss these concerns with your health practitioner.

Helpful tips for low-risk drinking

- Know the standard drink measures for the alcohol you are drinking and ensure you pour quantities accurately, for yourself and others.
- Have low-alcohol drinks. This could reduce your alcohol intake by up to 20%.
- Ensure you are well hydrated by keeping up water intake the day before and after drinking to prevent alcohol's dehydrating effects.
- Eat before and while you're drinking to allow better control over how quickly alcohol gets into your bloodstream.
- Have a non-alcoholic drink such as juice, soda or water for every alcoholic drink you consume. This will allow your body more time to process the alcohol and also quenches thirst.
- Increase the number of alcohol-free days per week.
- Avoid alcohol while taking medications prescribed or over-the-counter.
- Drink slowly always put your glass down between sips and don't top up your glass until it is finished.
- Ask your friends not to top up your drinks. Let them know you are aiming to keep track of how much alcohol you are consuming.
- Support your friends when they have chosen to reduce or cease drinking.

Many beers and wines contain preservatives and additives that add a chemical load that your liver needs to process.

Investigate locally-made drinks that contain fewer chemicals and offer a higher-quality drinking experience.

What other steps can I take for my health?



Fill out the Drink Diary for one week, taking note of how many standard drinks you have.



If you have experienced any of the symptoms described in this booklet, fill out the Drink Diary for a week.



Once you know your average level of drinking and any symptoms that may be a problem, schedule an appointment with your health practitioner to discuss what you have noticed.



Talk to your local pharmacist, especially if you are taking any medication. Check with them about warnings on drinking alcohol with prescribed or over-the-counter medications. Your pharmacist can also provide a Consumer Medication Information printout.



If you choose to drink less alcohol, use the Health Diary to record positive changes you notice with your health. For example: increased energy, improved sleep, weight loss or improved concentration.

If you decide that drinking less or no alcohol would be a good idea, perhaps you could invite your friends over for an alcohol-free cocktail party!



Check out the Drug Education Network's website for some delicious alcohol-free mocktail recipes: www.den.org.au



Share this booklet with family, friends and your community, so they can inform themselves and take steps to improve their health and wellbeing.



Join the Community Alcohol Action Network (CAAN), a program of the Australian Drug Foundation (ADF) which encourages people to take action to reduce alcoholrelated problems and harm within their own circles. See more at: www.adf.org.au (follow the links to Policy/ Advocacy, and Community Alcohol Action Network)



To find more information check out www.alcohol.gov.au and www.therightmix.gov.au



Drink Diary

Record the number of standard drinks you have consumed over one week. In the third column, record any unusual or unwelcome symptoms you have noticed after drinking.

Date	Number of standard drinks	Symptom notes

Health Diary

If you choose to drink less or no alcohol, make a record of any changes to your health (mental, emotional and physical).

Date	Notes

