

# don't drink and dive!

you don't drink and drive,

# so why drink and dive?

**HOW DOES ALCOHOL AFFECT  
MY ABILITY TO DIVE SAFELY?**

This leaflet has been produced by DDRC Healthcare, a charity (No. 279652) that promotes medical treatment, training and research associated with the use of hyperbaric oxygen therapy in the treatment of diving diseases and other medical problems.

Find out more about DDRC Healthcare at [www.ddrc.org](http://www.ddrc.org);  
Facebook & Twitter – [DDRC Plymouth](#)

Dive Master Insurance, one of the largest independent providers of recreational dive-related insurance in the world, supported the original concept of this educational leaflet.

Find out more about Dive Master Insurance at [www.divemasterinsurance.com](http://www.divemasterinsurance.com)

Find out more about the effects of alcohol at [www.drinkaware.co.uk](http://www.drinkaware.co.uk)

In dive training, most of the emphasis regarding the effects of alcohol on diving is placed on dehydration, and the theoretical increase in risk of decompression illness (DCI) that this may cause.

Dehydration happens because alcohol is a diuretic that makes you want to urinate more frequently, thus accelerating fluid loss from the body. This in turn leads to side-effects such as muscle cramps, dizziness and fainting.

But this is only part of the story.

In the UK, 33 to 66% of drownings in swimming and boating accidents involve alcohol. Alcohol impairs cardiac function and cognitive ability, affects reaction times and judgment, and increases heat loss. Visual function is also affected.

Hangovers affect cognitive performance in addition to the more obvious signs and symptoms, such as headache and nausea.

Recreational scuba-diving requires information-processing, recall, reasoning, decision-making, attention and the ability to take control of a situation under any number of scenarios – onshore, in the boat, at the water's surface or under water.

In all these situations, areas of behaviour and performance may be affected by inappropriate use of alcohol within a given time-frame prior to diving.

## What are the Government recommendations for alcohol consumption?

### Daily limit:

3-4 units for males,

2-3 units for females

### Weekly limit:

11-21 units for males,

8-14 units for females

At least two days a week should be alcohol-free.

# alcohol: the facts

## What is a unit?

One unit of alcohol is 10ml (1cl) by volume, or 8g by weight, of pure alcohol, which is about equal to:

- Half a pint of ordinary-strength beer, lager or cider (3-4% alcohol by volume)
- A small pub measure (25ml) of spirits (40% alcohol by volume)
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% alcohol by volume).

Many wines and beers contain more alcohol than 'ordinary' strengths.

A more accurate way of calculating units is as follows:

The percentage alcohol by volume (% abv) of a drink equals the number of units in 1 litre of that drink.

For example: Strong beer at 6% abv has six units in one litre. If you drink half a litre (500ml) – just under a pint – you have had 3 units.

Wine at 14% abv has 14 units in one litre. If you drink a quarter of a litre (250ml) – two small glasses – you have had 3.5 units.

## According to a recent survey by DDRC Healthcare (previously the Diving Diseases Research Centre)

Divers' drinking habits were representative of the national drinking population

Older divers were more inclined than younger divers to drink more than the recommended weekly limit

Younger divers were more likely to binge-drink than older divers

More than 18% of divers said they had gone diving when over the drink-driving limit (80mg of alcohol per 100ml of blood is the UK legal content for drivers)

A significant number of that group consumed more than the recommended weekly limit

34% of the divers had consumed alcohol 6 hours to 30 minutes before diving

Nearly 40% of that group said they had dived when they felt unfit to drive a car

23% said they had witnessed a diving incident that they felt might be alcohol-related

Divers felt that their group had a less-responsible attitude to alcohol when away on a diving holiday/weekend.

## Why do the effects vary?

Food and carbonation (fizziness) of the drink affects the rate at which alcohol is absorbed into the bloodstream, after having been absorbed through the lining of the stomach and small intestine.

Carbonated drinks speed up the absorption, while food in the stomach slows down the process.

Women, particularly younger women, have a lower tolerance threshold than men because they have less alcohol dehydrogenase (liver enzyme).

Some medications taken before or during drinking alcohol may prevent the alcohol dehydrogenase from breaking down alcohol, thus speeding up the effects.

All these factors affect the speed at which the liver can process the alcohol consumed. Alcohol that cannot be processed remains in the bloodstream and is then measured as blood alcohol content.

## How does alcohol affect me?

Depending on the amount of alcohol consumed and variables such as age, body weight, health, alcohol tolerance, and social environment:

Alcohol affects your ability to organise, orientate and concentrate.

Your judgment, decision-making, mood and visual accuracy may be impaired.

Dehydration and respiratory depression can be affected.

Alcohol hangover can also affect your cognitive ability (as above).

## What's the damage?

20% of road deaths have alcohol as a factor.

It has been estimated that 400 deaths per year in the home may be attributed to alcohol.

33% of fires are caused by people under the influence of alcohol.

66% of people admitted to hospital for burns have alcohol as a factor.

About 12% of domestic drownings may involve alcohol – falling in ponds, slipping in the bath or falling asleep in the bath, for example.

don't be a  
statistic