

# Alcohol as a risk factor



Sistema Socio Sanitario



Regione  
Lombardia

ATS Brescia



## Are there “safe” amounts of alcohol?

It is not possible to identify a recommended or “safe” amount of alcohol consumption in terms of health. Health and well-being are however exposed to a risk, even at quantities commonly considered moderate.

Therefore, it is more appropriate to speak of “low risk” quantities, highlighting that the risk exists at any level of consumption and increases progressively with the increase in the quantity of alcoholic beverages consumed.

The World Health Organisation considers a daily quantity of alcohol not exceeding 24 grams (2 alcoholic units) for men, and 12 grams (1 alcoholic unit) for women and people over 65 years of age to be low-risk. It is recommended for those under the age of 18 never to consume alcoholic beverages. It should be noted that in Italy, the sale and administration of alcoholic beverages under the age of 18 is prohibited (Law no. 189 of 8 November 2012).

## What is alcohol?

Alcohol is a toxic substance with a higher addictive capacity than many of the better known illegal substances or drugs.

Alcohol is found in many beverages that are habitually consumed by many people. Its dangers and effects on individual and social health are often underestimated.

Ethyl alcohol is the main cause of about 60 diseases and pathological conditions including cancer. It also reduces attention, leads to the underestimation of risky situations and can cause serious psychological and neurological damage. In addition, there are fines, disqualification from driving and points.

## Alcohol as a risk factor

Alcohol poses a very serious risk to individual and social health. In addition to individual risks, excessive doses of alcohol can create family problems (violence and crime under the influence of alcohol, serious diseases that can even affect newborn babies) and cause numerous road accidents.

People at risk are those who consume alcohol in such a quantity or in such a way as to influence negatively their health.

Alcoholics are those who experience withdrawal symptoms and for whom alcohol is an increasing priority.

## How do you measure alcohol intake?

One unit of alcohol is equivalent to a glass of wine (125 ml), a can/glass of beer (330 ml), a glass of alcoholic aperitif (80 ml) or a glass of spirits (40 ml).

Blood alcohol content is a measure of the amount of alcohol in the blood and is indicated in grams per litre of blood. Blood alcohol content is measured by an instrument called a breathalyser, or by a blood sample.

Approximately, two alcohol units (24 grams of alcohol) are enough for women to reach the legal limit for driving; for a man the legal limit is reached with about 3 standard glasses (36 grams of alcohol).

**Warning! These values are only approximate as there are many factors that can affect blood alcohol content.**

On average it takes 1 hour to get rid of every unit of alcohol ingested.



## When is it recommended not to drink?

There are situations in which it is recommended to abstain completely from the consumption of alcoholic beverages:

- If you are under 18 years of age
- If you are planning to become pregnant
- If you are pregnant or breast-feeding
- If you are taking medication
- If you suffer from an acute or chronic condition
- If you are already being treated for alcohol related illnesses
- If you have or have had other types of addiction
- If you have to go to work or when you are at work
- If you have to drive a vehicle or use a machine
- If you are empty stomach or between meals.

## Interactions between alcohol, medicine and narcotics

Alcohol interferes negatively with the metabolism of medicines. The simultaneous intake of medicines and alcohol often leads to serious side effects, as well as blocking the beneficial action of the medicines themselves. Do not drink alcohol when taking medication, especially if you are taking:

- Psychotropic medicines (tranquilizers, sleeping pills, sedatives, antidepressants, anxiolytics), as alcohol enhances the effects of attention reduction;
- **antiepileptics**, in this case alcohol decreases the effects and increases the risk of seizures;
- **antihistamines**, and can lead to cardiovascular failure if **injected antibiotics** are taken (risk of adverse reaction).

The simultaneous use of different drugs, sometimes accompanied by alcohol and psychotropic medication, is very dangerous as it unpredictably increases the negative effects of each substance and the consequent risks.

## Effects of alcohol consumption on the ability to drive

The harmful effects of alcohol on driving vary according to the blood alcohol content. With a blood alcohol content of 0.2 grams/litre, there is an initial tendency to drive more dangerously, reflexes are slightly impaired but the tendency to act imprudently increases



due to a reduction in risk perception. A blood alcohol content of 0.4 grams/litre slows the capacity of alertness and mental processing; perceptions and movements or manoeuvres are carried out abruptly and with coordination difficulties. With a blood alcohol content of 0.5 grams/litre, the field of vision is reduced primarily due to reduced lateral vision; at the same time, the ability to perceive sound, light and hearing stimuli and the resulting ability to react are reduced by 30-40 %.

When blood alcohol content reaches 0.6 grams/litre, movements and obstacles are perceived with considerable delay and lateral vision is impaired. At a value equal to 0.7 grams/litre, reaction times are severely compromised; normal driving movements are uncoordinated, confused and always lead to serious consequences.

At around 0.9 grams/litre, the ability to adjust to darkness, the ability to assess distances, overall dimensions, vehicle trajectories and simultaneous visual perceptions are compromised (for example, for two vehicles only one is perceived). When blood alcohol content reaches 1 gram/litre, DRUNKENNESS is evident, characterised by euphoria and motor disorders that make balance precarious. The change in attention span is evident and visible, with minimal visual capacity levels and absolutely inadequate reaction times; there is a greater risk of distraction. Driving behaviour is characterised by voluntary drifting of the vehicle or motorcycle, driving in the middle of

the road or in the opposite direction, inability to assess the position of the vehicle in relation to the roadway. High beam lights, intense light perceptions can be the main cause of completely losing control of an already precarious situation, causing temporary blindness followed by a very slow recovery of vision. With blood alcohol content above 1 gram/litre, the state of euphoria is replaced by a state of mental confusion and total loss of lucidity, resulting in very intense sleepiness and drowsiness.

## **Driving safely: the Motorway Code**

The Motorway Code sanctions the behaviour of those who drive after drinking. According to art. 186, blood alcohol content while driving should not exceed 0.5 grams/litre (0.0 grams/litre for new drivers and professional licences). The penalties foreseen are progressive depending on the blood alcohol content detected. The infringement also provides for the assignment of points.

## **What happens if I am found to have an alcohol level of 0,5 gram/litre or higher?**

The law stipulates that motorvehicle drivers may be subject to alcohol testing by the police. A breathalyser is used to determine the

amount of alcohol in the air exhaled by means of two tests conducted 5 minutes apart.

If a driver exceeds the value of 0.5 grams of alcohol per litre of blood, the driver will be considered intoxicated and for this offence their driving license will be revoked. Following the sanction for «drink-driving», the licence can only be renewed once the fitness to drive has been verified.

This procedure takes place through a medical examination at the Medical Commission for Driving Licences, better known as the Local Medical Commission for Driving Licences of the Health Protection Agency.

## **Where to carry out tests, obtain certifications and treatment programmes**

The Alcohol Addiction Service of the Brescia ATS Health Protection Agency and the Integrated Disciplinary Services (SMI) are required to conduct diagnostic assessment for any alcohol-related problems and provide information and awareness on alcohol and driving. The times and methods of these courses are determined by the respective Services.

Access to these Services allows you to obtain the Certification required by the Driving Licence Commission to be produced in order to obtain or confirm fitness to drive, as established by the Commission.

