



Alcohol your enemy in a glass



Why this booklet?

According to the World Health Organisation (WHO), Europe is the continent where alcohol is mostly consumed (twice the global average). The highest rates of consumption are observed in Eastern Europe, especially Moldavia, Czech Republic, Hungary, Ukraine, Estonia, Romania, Slovenia, Byelorussia, and Croatia. In Europe, alcohol is the third risk factor for death and disability. **And it is also a major danger for young people's health. As a result of over-consumption, two millions and a half people die every year.** Why? Car accidents, cancer, cardiovascular diseases and cirrhosis of the liver are the main consequences. In this brochure you will discover the hazards for your health that hide behind the abuse or continued use of alcohol, whether this is beer, wine or anything stronger.

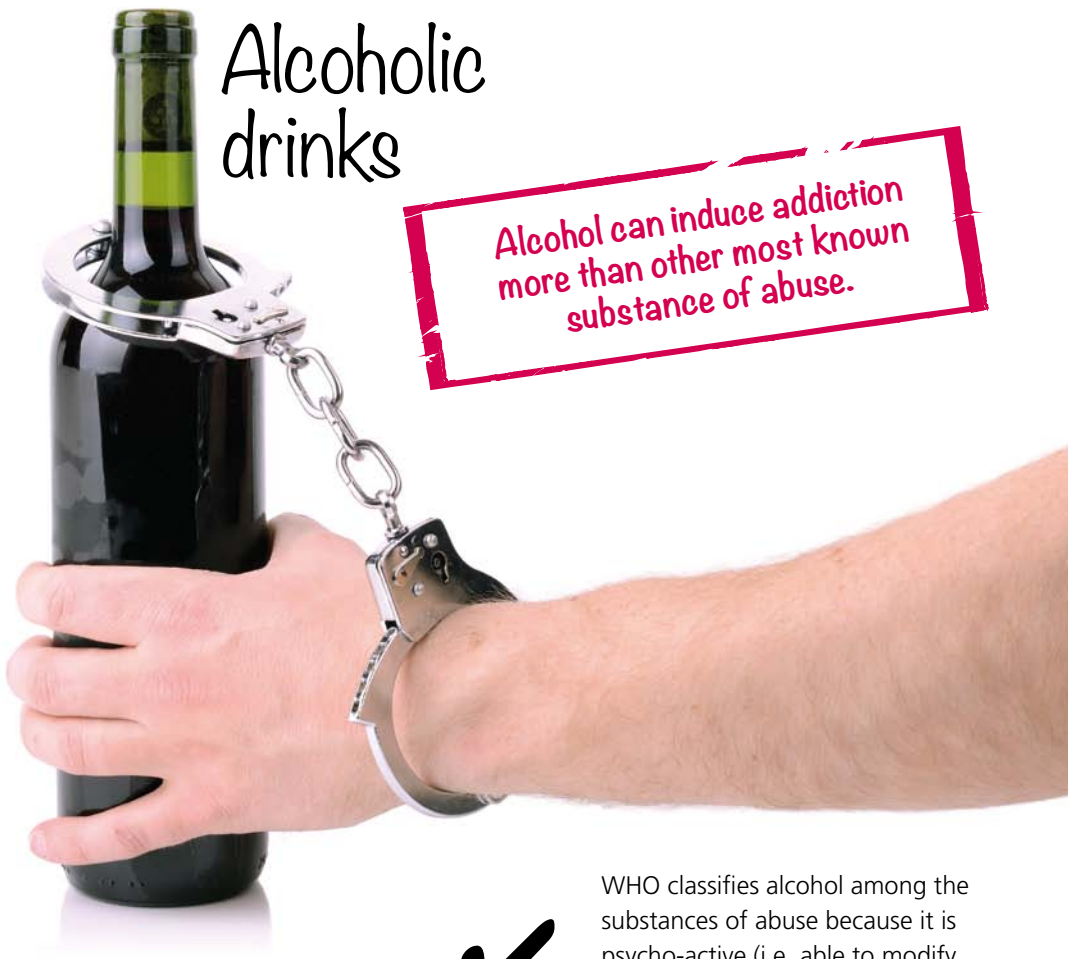


Who we are

The **Insieme Contro il Cancro** Foundation is a non-profit organization instituted to fight cancer at 360°, by implementing communication and education campaigns, research activities, prevention (including healthy lifestyles, and screenings), diagnosis and treatment, rehabilitation, and social reintegration of people with cancer.

Alcoholic drinks

Alcohol can induce addiction more than other most known substance of abuse.



Consumption in Italy

In 2013, there were over 34 million Italians who declared to have consumed at least one alcoholic drink within the year. Among these, 12,3 million used to drink alcohol every day and 7 million showed a risky behavior. Approximately 77% among men and 51,2% among women consume alcohol at least once a year; 51% drink wine, 45% beer and 40% alcoholic aperitifs, bitters, spirits or liqueurs. The places where people like to drink most are cafes, pubs or breweries (40%), their own home or some friends' or relatives' houses (38%), discos or nightclubs (16,2%) and restaurants, pizzerias and taverns (7,3%).

WHO classifies alcohol among the substances of abuse because it is psycho-active (i.e. able to modify brain functioning) and its long-term use over time is addictive. **It is a real legally-approved drug** and, therefore, freely sold and consumed in the large majority of countries. In the long-term, it can influence negatively the user's lifestyle posing at risk physical, psychological, familiar, and social health.

How does alcohol absorption work?

Alcohol is partly absorbed by the stomach (20%) but mostly by the first tract of the bowel (80%). When the stomach is empty, absorption is faster. The substance passes into the blood and from here to the liver, which is responsible of its metabolization. Alcohol continues to diffuse to all the other organs until enzymatic digestion is completed. About 90% of absorbed alcohol is metabolized by the liver and converted into energetic reserve, such as triglycerides; the remaining part (10%) is eliminated through urine, stool, breath, breast milk, tears and sweat. A person who weighs 70 kg can metabolize around 7 grams of alcohol per hour.

Alcohol consumption is absolutely not recommended before the age of 16, because young bodies cannot digest it efficaciously and intoxication may appear more rapidly.

Adverse effects

The consequences of a hangover are not limited to headache and nausea in the following day, they may last longer! **Alcohol is a highly toxic substance and, above**

all, potentially carcinogen. Several scientific studies suggest that alcohol is an important risk factor for breast, colon rectum, pancreas, liver, ovary, esophagus, head and neck, pharynx and larynx cancer. According to scientific calculations, 50 grams of alcohol per day (the equivalent of three drinks) increase the risk of cancer, respectively to non drinkers:

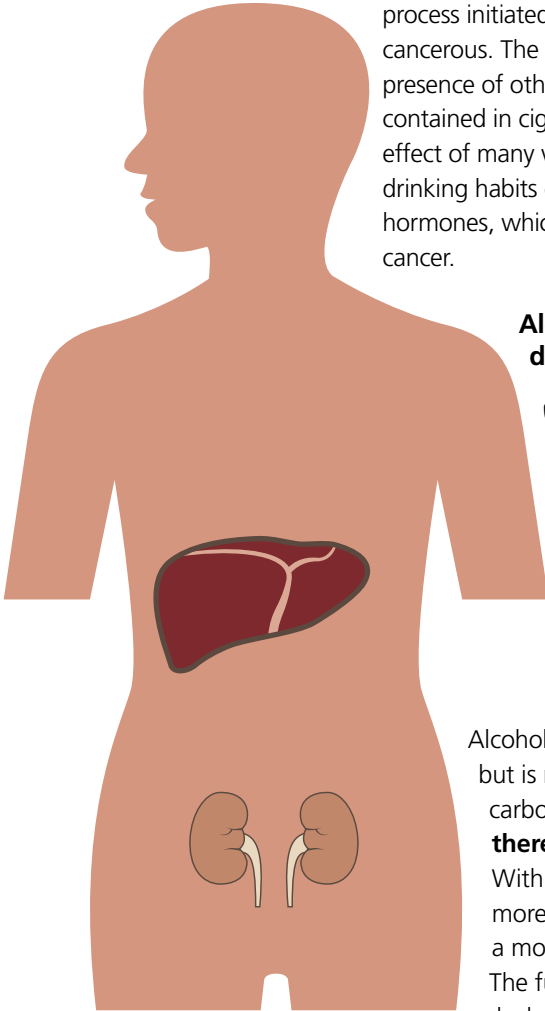
- **from two to three times** in oral cavity, pharynx and esophagus,

- by **40%** in the colon rectum,
- by **50%** in the breast.

50 gr
alcohol



The **liver** is the organ more susceptible to alcohol damages, because its cells are very sensitive and therefore vulnerable to it. Too much drinking can harm tissues and organs, and if “errors” occur during the “self-healing” process initiated by the body, some cells may become cancerous. The toxicity of alcohol is amplified by the presence of other harmful compounds, such as those contained in cigarettes, with the result of a combined effect of many very toxic substances. Finally, extreme drinking habits can enhance the production of some hormones, which in turn affect the risk of developing cancer.



Alcohol abuse can cause several others diseases, including:

- ✓ cirrhosis of the liver
- ✓ diabetes mellitus
- ✓ neuropsychiatric disorders
- ✓ cardiovascular diseases

Alcohol provides about 7 kilocalories per gram, but is not a nutrient as, for example, proteins, carbohydrates or fats. **Its consumption is not therefore useful to the organism.**

With the same amount of alcohol introduced more than once, blood levels will increase with a more marked effect. But this is not all.

The function of the main organs responsible for alcohol metabolism (liver and kidneys) decreases with age and with the increase in alcohol intake.

Alcohol abuse is harmful to everyone but young people (under 16), females and the elderly are more vulnerable than male adults because their body has a reduced capacity of metabolizing (“digesting”) this substance.

Alcohol consumption in pregnancy is especially critical; the risks for fetuses are very high!

Liver cancer

One cancer out of ten
is caused by alcohol






Among all tumors, **liver cancer** is the most dependent on excessive drinking. The liver is responsible for disposing all the harmful substances introduced into our body, so is for alcohol. Around the world, there are 1 million new diagnoses of liver cancer every year. This disease is more frequently observed in Asia and Africa, and more rarely in the Western Countries where it accounts for 3-5% of all cancer diagnoses. It is also more common among men than women because in many countries these types of abuse, such as smoking and alcohol, are mainly limited to males. Others major risk factors for this cancer are **hepatitis B or C virus infections** and **cirrhosis**. In some African and Asian regions a relationship has been established between liver cancer and intake of nitrite/aflatoxin, compounds produced by particular mushrooms, called *Aspergillus*, which grow in granaries.



Do I risk my driving license with a glass?"

Alcohol abuse involves a range of side effects that vary from one person to another depending on factors such as body weight and metabolism.

However, there are consequences that apply to everyone! This means that anyone, with a certain rate of alcohol in their blood, can show very specific symptoms, especially at sensory level. This is the main reason why those who drink should not drive and... **drivers should not drink!** According to statistics, a blood level of 0.5 grams of alcohol per liter is enough to increase 10 times the risk of accidents.

Alcohol in the blood	Objective effects on the body	In a 70 kg adult these concentrations are obtained with	
0.2 grams per liter	Difficulty to concentrate on several things at the same time	A glass of wine or a can of beer	
0.5 grams per liter	Reduced lateral visual field, slower reaction times, lower dazzling resistance, coordination problems <i>Limit tolerated by law</i>	¼ liter of wine	
0.8 grams per liter	Very difficult to perceive distances, lower concentration, easy red light dazzling	4 cups of bitter, 1 liter of beer	
1.0 grams per liter	Restricted lateral visual field, lower perception of distances and object speed	3 small glasses of vodka	
1.5 grams per liter	Underestimation of dangers, uncoordinated movements, very slow reactions <i>Heavy penalties</i>	3 cocktails after dinner	

8 tips on alcohol consumption

1. It is easy to cross the boundary between sobriety and feeling drunk without even realizing it
2. Do not underestimate alarm bells for addiction
3. For a given volume it is better to prefer low alcohol drinks (wine or beer) and avoid spirits
4. Do not drink without food or fasting
5. Avoid mixing different types of alcoholic drinks
6. Be careful when taking medications, there may be interaction
7. Absolute abstinence is advised if overweight or in case of overt illness
8. Keep in mind that alcohol contributes to make you fatter

✓ Keyword: moderation

The daily dose of alcohol should not exceed **20-40 grams** for men and **10-20 grams** for women.

Be careful not to drink heavily at weekends, this is also very dangerous for your health.

A glass of wine (125 ml), a can of beer (330 ml) or a shot of hard liquor (40 ml) contains the same amount of alcohol (about 12 grams).



But not all glasses have a silver lining... ✓

As well as providing some valuable components, drinking a glass of red wine can increase "good" cholesterol (or HDL) in the blood. Plus, red wine contains precious antioxidants that may slow cellular aging and improve function of blood vessels and arteries. But you must be very careful at the amount you drink: if you exceed the limit, benefits may become damage. The accepted threshold for alcohol is equivalent to a glass of wine or a pitcher of beer, and the allowed amount should not exceed 14 units per week in men (2 glasses of wine per day) and 7 units per week in women (a glass per day).

4 myths to dispel about alcohol

✓ It facilitates sleep

To most people, one or two drinks in the evening may appear a good remedy for relaxing and falling into a deep sleep, but it is just a temporary effect. Falling asleep earlier and more soundly early at night leads to a disrupted rest, which moreover makes you feel more tired when you wake up. And even a small amount of alcohol can adversely affect your sleep. In fact, an after dinner drink often makes you snoring and gives other breathing difficulties.



FALSE

✓ It helps sexuality

Many young people mistakenly believe that alcohol is the ideal "fuel" for a night of passion. On the contrary, it has been scientifically proven that it is cause of impotence and a drop in libido. In women, drunkenness may increase the risk of having unprotected sexual intercourse, with the corresponding danger of sexually transmitted diseases and unwanted pregnancies. Drinking too much also harms men sexuality since it worsens the vitality of sperm.



FALSE

✓ It warms up the body

It is widely believed that alcohol warms up the body; it gives a warm feeling but this is only temporary. Alcohol is a peripheral vasodilator that increases the amount of blood on the skin. Because of this effect the internal heat of the body is dispersed. If you have been drinking a lot and if the temperature outside is low, when this effect falls short you experience sudden and intense chills.



FALSE

✓ Its effects are counteracted by coffee

The body eliminates alcohol in small steps, with time and conditions not affected by caffeine. A cup of coffee will just help a tipsy person to be a little more awake, but not to eliminate alcohol! No precaution will actually decrease its concentration in the blood.



FALSE

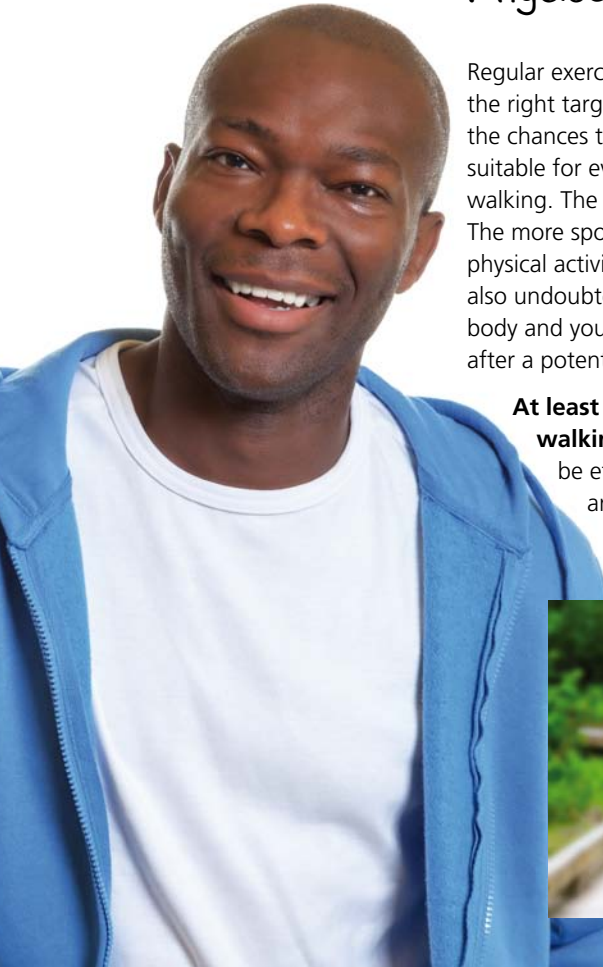
But to prevent cancer we need something more...

Drastically reducing to eventually eliminating alcohol consumption can considerably decrease the risk of developing cancer. But this may not be sufficient. A healthy lifestyle also includes ...

Physical activity

Regular exercise or practicing sport helps you maintain the right target weight and reduces by about 20-40% the chances to develop cancer. Some activities are suitable for everyone: jogging, swimming, cycling, brisk walking. The protective effect increases with activity. The more sports you practice the better! The more physical activity you do the better! Moreover, there are also undoubted benefits of moderate exercise on your body and your mood, especially in promoting recovery after a potential illness.

At least 30 minutes a day of exercise like brisk walking or bike riding are recommended. To be effective, physical activity should have such an intensity as to produce sweating and to hasten heartbeat.



Say no to smoking

Tobacco is one of the most hazardous substances for your health: smokers are more likely to develop over 50 serious illnesses, including cancer. **Carcinogenic substances contained in a cigarette are responsible for nine out of ten cases of lung cancer!**

If you smoke it is important to stop as soon as possible; each week spent with cigarettes in your mouth is equivalent to one day of your life lost. Cigarette smoking has doubled from the 60's. But in the last two decades, smoking habit has declined in Western countries, while it increases in the developing regions by 3.4% each year.

Be careful also to passive smoking, which like the active one, has more than 4,000 chemicals in the form of particles and gases. It is likely the most dangerous type of smoke because it has a very high concentration of toxic products. A smoker's partner incurs in a higher risk of getting lung cancer by more than 20-30%.



- Alcohol is classified among the drugs of abuse because it shows a psychoactive power (i.e. able to modify brain functioning) and its long-term use is addictive over time. Unlike what people believe, it is not a nutrient
- It is a highly toxic substance and, more importantly, it is potentially carcinogenic. Numerous scientific studies indicate it as an important risk factor for breast, colorectal, pancreas, liver, ovary, esophagus, head and neck, pharynx and larynx cancer. A little more than 3 glasses of an alcoholic drink every day result in a significant increase in the probability of developing cancer
- Alcohol intake is not recommended before the age of 16 years, because the body cannot digest it efficaciously and intoxication may develop more rapidly. This advice also applies to pregnant women
 - You may, however, have benefits from red wine, which contains valuable antioxidants. But it is important not to exceed, and limit alcohol intake at one glass per day.

