



## Fact Sheet – Alcohol

**Alcohol consumption is prevalent in our society. Regular alcohol consumption however can cause health problems and increases the risk of a number of types of cancer. You should therefore keep your alcohol intake as low as possible.**

### What is alcohol?

Pure alcohol (ethanol) is a clear liquid with a strong odour and a burning taste. While it can be synthesised from water and ethenes, alcohol is usually made by fermenting and distilling natural starch and sugar. Alcoholic beverages vary widely in their pure alcohol content. In everyday usage, the word 'alcohol' refers to beverages such as beer, wine or spirits rather than to pure alcohol (ethanol).

Alcohol content is commonly given in percent by volume (% ABV). With a density of 0.79 g/cm<sup>3</sup>, pure alcohol is lighter than water. One unit – or 100 millilitres/35 fl oz UK of an alcoholic beverage with 10% ABV – contains 7.9 g of pure alcohol.

Alcohol supplies energy, just as fat, carbohydrates and protein do. The energy content of one gramme (1g) of ethanol amounts to seven kilocalories (7 kcal).

### How does alcohol affect you?

Immediately after drinking alcohol, we usually experience warmth, well-being and a feeling of exuberance. As we increase the quantity of alcohol, we tend to become less able to concentrate but more willing to take risks. Our sense of balance and our vision are impaired. A high intake of alcohol can lead to paralysis and loss of consciousness; we may stop breathing and die.

Our metabolism is affected when we drink alcohol. Regular and excessive drinking can damage virtually every organ in the body, in particular the liver and the pancreas. Excessive drinking also increases the risk of high blood pressure, heart disease and inflammations of the stomach lining. People who drink a great deal are less able to fight off infections, and run a greater risk of damage to their nervous system. If you drink alcohol and smoke tobacco you run a greater risk of developing certain types of cancer.

Alongside its physical impacts, excessive drinking can also lead to mental and social problems.

### Alcohol and cancer risk

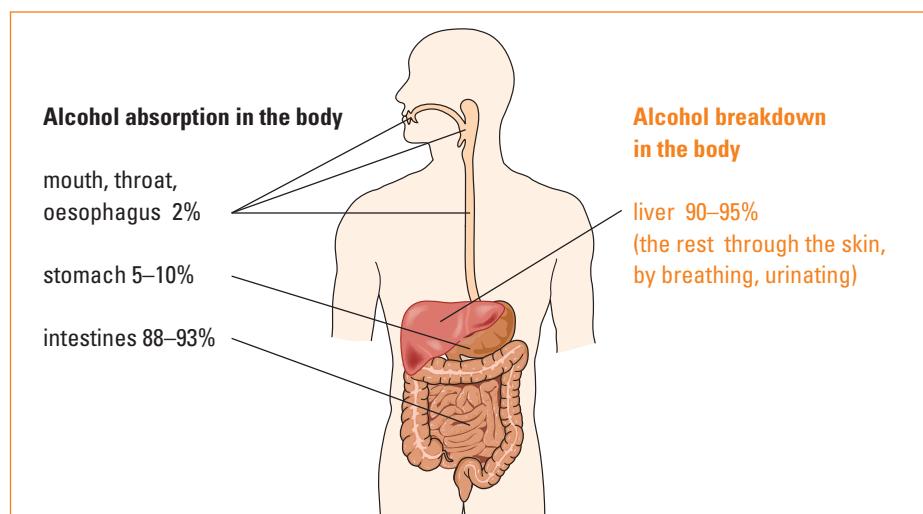
Alcohol increases the risk of various types of cancer. In Switzerland it is estimated that of the 37,000 people newly diagnosed with cancer each year, 4 to 8% cases are alcohol-related. In other words, alcohol plays a part in cancer diagnosed in 1,500 to 3,000 people in Switzerland a year.

There is no 'safe' or minimum alcohol limit below which cancer risk does not increase. Drinking increases the risk of cancer of the mouth, upper throat (pharynx), voice box (larynx), food pipe (oesophagus), liver, breasts and bowel. Even small amounts of alcohol increase the risk of cancer, which increase even more as and if alcohol intake grows.

### How does the body absorb, metabolise and expel alcohol?

Alcohol is absorbed in the entire digestive tract – 2% in the mucous membranes in the mouth, upper throat and food-pipe (oesophagus), 5-10% in the stomach. The intestine absorbs by far the biggest portion, 88-93%.

Of the alcohol absorbed by the body, the liver converts 90-95% into acetaldehyde, which is considered a carcinogenic substance; the remainder of the alcohol is expelled through the skin, the lungs (as you breathe) and the kidneys (in your urine).



It does not matter what kind of alcoholic beverage you consume. Drinking just one standard glass a day increases the risk of mouth or throat cancer, or cancer of the breast or food-pipe (oesophagus).

## Causes

Current findings do not completely explain how alcohol causes cancer. One possible scenario is that alcohol damages cells in the mucous membranes of the food pipe or the bowel; it also seems to impair the metabolism of various healthy nutrients.

Acetaldehyde is a natural constituent of alcoholic beverages; it is also a (waste) chemical produced when our body converts alcohol (ethanol). Acetaldehyde can cause cancer by damaging our DNA. So far it remains to be seen, however, to what extent acetaldehyde is responsible for the carcinogenic nature of alcoholic beverages.

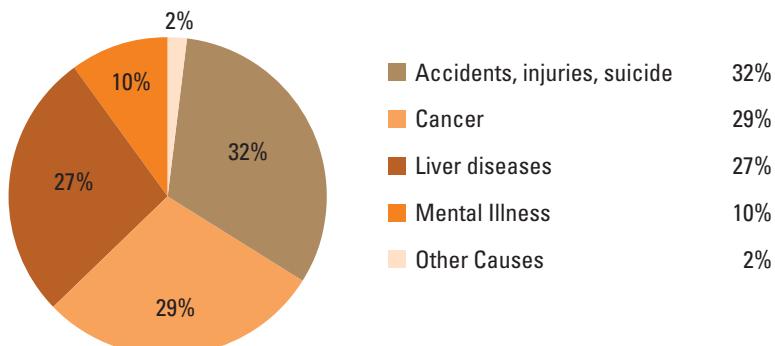
Alcohol affects human hormone levels; it may lead to an increased production of oestrogens and other hormones that play a significant part in breast cancer.

The high calorie content of alcoholic beverages encourages excess body weight, which is an important cancer risk factor. Alcohol consumption inhibits the fat-burning process and with its appetite stimulating effects can lead to an additional intake of calories. By encouraging excess weight, alcohol may therefore indirectly increase cancer risk.

## Alcohol and tobacco

Drinking alcohol and smoking tobacco carry an increased risk of mouth, upper throat (pharyngeal) and food-pipe (oesophageal) cancer. In comparison to people who 'only' smoke or 'only' drink alcohol, a combination of drinking and smoking additionally increases cancer risk.

**Alcohol-related deaths in 2011 (15 to 74-years olds)**



For cardiovascular diseases, the deaths caused by alcohol and the deaths prevented by moderate alcohol intake nearly offset each other (-1 %) and are therefore not represented in this graph.

## Does alcohol have any health benefits?

Several studies have shown that moderate alcohol intake (one or two standard drinks a day, each of 100 ml of wine, or 300 ml of beer, or 200 ml of spirits) may reduce the risk of a heart attack or stroke. However, depending on your weight and state of health, alcohol may affect you in a different way.

Many organisations have defined a low-risk daily maximum alcohol intake as being one standard drink for women and two standard drinks for men. A standard drink is an alcoholic beverage with a pure alcohol content of 10-12 g – 300 ml of beer or 100 ml of wine, for example. Please note that these are merely guide values for maximum alcohol intake. Do not increase your alcohol intake if you drink less than the above. And if you don't drink, don't start.

All in all, alcohol causes more damage than benefit to human health. In Switzerland, alcohol-related deaths among people aged 15 to 74 amounted to 1,768 (in 2011) while the preventive effect of drinking a moderate amount of alcohol managed to reduce the number of deaths (in particular due to cardiovascular disease) by a mere 168.

## Alcohol-related deaths

As the numbers above show, in 2011, alcohol consumption in Switzerland caused 1,600 deaths among 15 to 74-year-olds. 62% of these deaths (three quarters male, one quarter female) can be attributed to high alcohol intake.

Of all alcohol-related deaths, 32% are due to accidents and injuries; 29% to cancer; 27% to liver diseases and 10% to mental illnesses.

## Swiss Cancer League Recommendations

Many of us enjoy alcohol with a good meal or when socialising. By far the greater part of the population in Switzerland consume low quantities of alcohol, or do not drink at all.

For the sake of your health, the Swiss Cancer League recommends that you keep your alcohol intake low and regularly observe alcohol-free days; and that you favour non-alcoholic beverages.

You are taking good care of your health if your meals are well balanced, if you get plenty of exercise, if you drink little or no alcohol and if you don't smoke.

## Average alcohol consumption in Switzerland

In Switzerland the average annual consumption of pure alcohol per person aged 15 or over amounted to just under 10 litres or 17.6 pints UK in 2012; ranking Switzerland in Europe's mid-table.

Over the past several years Swiss alcohol consumption has been in slow decline. More than 80% of persons aged 15 or over consume alcohol; some 15% do not drink. The alcohol intake by almost 5% of persons aged 15 or over is considered to be hazardous (more than 20 g/day of pure alcohol per day for women; more than 40 g/day of pure alcohol for men). Men drink more alcohol than women, and do so more frequently.

More people drink alcohol every day in western (French-speaking) and southern (Italian-speaking) Switzerland. On average, people in these two regions drink more alcohol than in German-speaking Switzerland.

## References and further information

[www.suchtschweiz.ch](http://www.suchtschweiz.ch)  
[www.bag.admin.ch/themen/drogen/](http://www.bag.admin.ch/themen/drogen/)  
[www.ich-spreche-über-alkohol.ch](http://www.ich-spreche-über-alkohol.ch)

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