

Alcohol and cancer: knowing the risks

At a glance – alcohol and cancer

7 types of cancer can be caused by alcohol

12,800 people are diagnosed with alcohol-related cancer each year in the UK¹ (that's 35 people every day)

There were 28% more hospital admissions for alcohol-related cancers in 2014/15 than in 2004/05²

Modelling predicts that, between 2015 and 2035 in England alone, there are expected to be **1.2 million** alcohol-related cancer hospital admissions and **135,000** alcohol-related cancer deaths, at a cost to the NHS of **£2 billion**³

Only 1 in 10 people are aware of the link between alcohol and cancer⁴

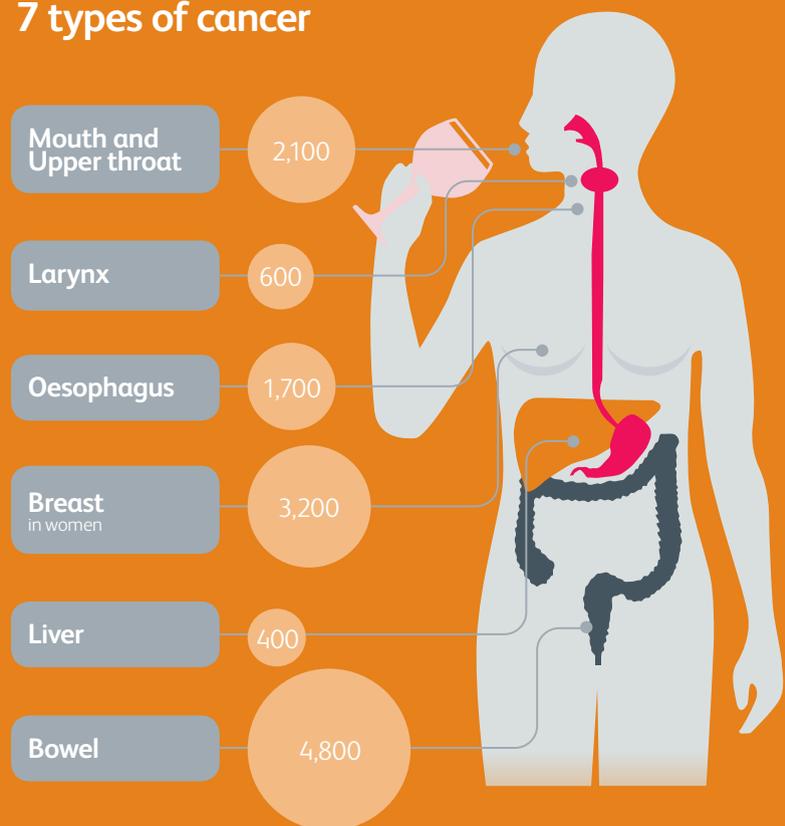
Introduction

Alcohol is a group 1 carcinogen and is linked to an increased risk of seven types of cancer. The latest alcohol consumption guidelines explain that there is no completely safe level of drinking, and therefore any amount of alcohol you drink increases your risk of developing cancer. But the less alcohol you drink, the lower the risk.

However, only around one in ten people are aware of the link between alcohol and cancer⁴, and in the UK we continue to drink substantially more than we did 50 years ago.⁵

We need to ensure the public are aware of the link between alcohol and cancer. We also need measures to reduce how much people drink overall, which will in turn reduce their risk of cancer.

Alcohol can cause 7 types of cancer



Circles show cancer cases attributable to alcohol by cancer type in the UK in 2011.

Redrawn with permission from Cancer Research UK:
www.cancerresearchuk.org/about-cancer/causes-of-cancer/alcohol-and-cancer/how-alcohol-causes-cancer

What is the evidence that drinking alcohol can cause cancer?

Over the last 30 years, a large body of evidence has been collected which establishes alcohol as a risk factor for cancer.

Comprehensive evidence reviews have been carried out by the World Health Organization's International Agency of Research for Cancer,^{6,7,8} the World Cancer Research Fund and the American Institute for Cancer Research.^{9,10}

This research has established strong links between alcohol and cancers of the mouth, upper throat, voice box, food pipe, bowel, liver and breast.

How does alcohol cause cancer?

The biological processes are complex, and not yet fully understood, but there are three main ways alcohol can cause cancer:

- > The alcohol we drink is converted in the body into a chemical called acetaldehyde, which damages the DNA in our cells.⁸
- > Alcohol facilitates the absorption of other carcinogens, such as those found in tobacco.¹¹
- > Alcohol can increase the levels of some hormones, such as oestrogen, which can in turn increase the risk of breast cancer.¹²

Is this only a problem for heavy drinkers?

No. The more someone drinks, the higher their risk of developing cancer. However, for some cancers the risk increases to some extent even at low consumption levels. For example, a 2012 review of over 200 studies found that people who consumed up to just 1.5 units per day still had increased risks of mouth and upper throat, food pipe and breast cancers.¹³

Aren't there some benefits of drinking alcohol?

In 2016 the UK's Chief Medical Officers released new alcohol consumption guidelines which explained that any benefits linked to drinking alcohol were smaller than previously thought when the guidelines were last updated in 1995, and only apply to women aged 55 and over, who drink at very low levels (around 1 unit of alcohol per day).¹⁴

How many people in the UK are affected?

A 2011 study estimated that alcohol is responsible for around 4% of UK cancer cases: around 12,800 per year.¹

How will this change in the future?

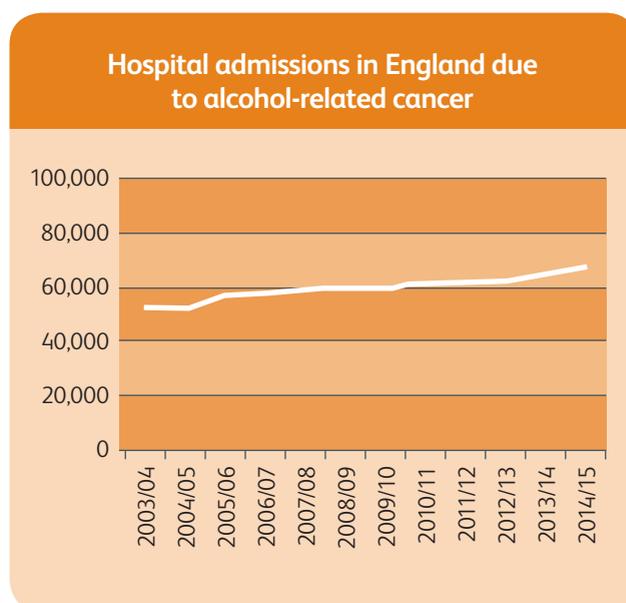
A recent study by the University of Sheffield and Cancer Research UK modelled alcohol consumption trends in England over the next 20 years and what impact these trends would have. The study found that, in the most likely scenario, there would be a slight increase in overall alcohol consumption among drinkers, leading to 135,000 alcohol-related cancer deaths between 2015 and 2035, and 1.2 million alcohol-related cancer hospital admissions.³

What impact does alcohol-related cancer have on the NHS?

The impact of alcohol-related cancer can be seen vividly in the statistics on hospital admissions. Data for England (see graph below) show that the number of admissions to hospital for alcohol-related cancer have increased by 28% in the last decade, from 69,810 in 2004/05 to 89,320 in 2014/15.²

Analysis of alcohol-related Hospital Episode Statistics data shows that, in 2014/15, hospital admissions for alcohol-related cancers cost the NHS in England around £225m.¹⁵

Costs to the NHS are set to continue. The modelling study mentioned above found that, under the most likely scenario, alcohol-related cancer will cost the NHS £2 billion between 2015 and 2035.



Graph created using data from: Public Health England. *Local Area Profiles for England (LAPE) data update May 2016.*

Do UK drinkers know about the risks?

Worryingly, only a very low proportion of people are aware of the link between alcohol and cancer. A 2016 study commissioned by Cancer Research UK found that only around 1 in 10 people link alcohol with cancer.⁴

We also know that many people in the UK drink above the weekly recommended guidelines of 14 units a week (for both men and women). Figures show that in England, around 11.1 million people drink above the guideline.¹⁶ In Scotland we estimate that over a million people drink above the current guideline level,¹⁷ and in Northern Ireland around 260,000.¹⁸ In Wales, we know that in 2015 39.9% of the population aged 16 and over drank above the previous guidelines of no more than 4 units a day for men and 3 units a day for women, suggesting there will be more who drank above current guideline levels.¹⁹

Recommendations

Communicating the risks to the public

The public have the right to know about the link between alcohol and cancer, so that they are empowered to make informed choices about their drinking. To this end, we are calling on the government to:

- > develop mass media campaigns to communicate the link between alcohol and cancer.
- > ensure independently-developed health information about alcohol and cancer is included on the labels of all alcoholic products.

These messages around alcohol and cancer should be developed as part of messages communicating the full range of health harms associated with alcohol, and the updated alcohol consumption guidelines.

Reducing overall consumption of alcohol in the UK

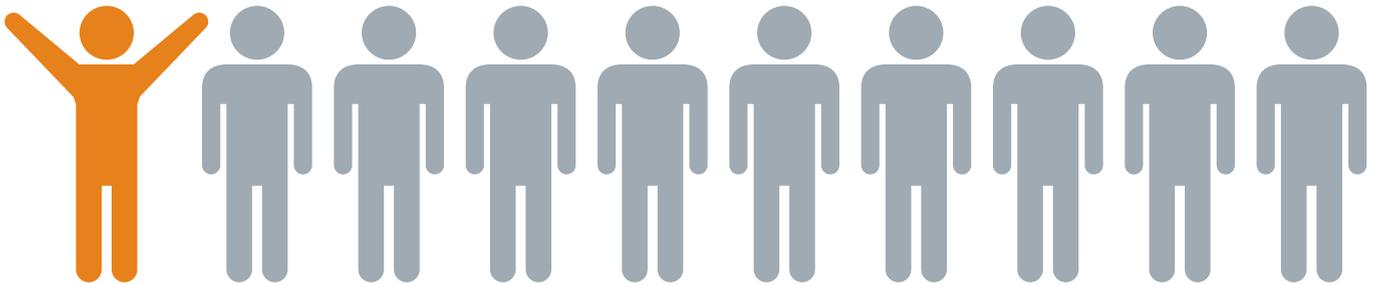
Media campaigns and product labelling should be introduced alongside a wider, evidence-based strategy designed to reduce the overall consumption of alcohol in our society. Following a reduction in consumption, the number of cancer diagnoses, hospital admissions and deaths due to alcohol will start to decline over time.

Key elements of this strategy should include:

- > raising the real price of alcohol through increased taxation on the cheapest drinks, and the introduction of a minimum unit price for alcohol. Research shows that in England, a minimum unit price of 50p would prevent 670 alcohol-attributable deaths, prevent 6,300 cancer-related hospital admissions and save the NHS £1.3 billion in cancer-related health costs over 20 years.³
- > limiting the times and places alcohol is available for sale.
- > restrictions on exposure to alcohol advertising, promotion and sponsorship, particularly among children.

Cancer awareness

Only around 1 in 10 people link cancer as a potential health condition resulting from drinking too much alcohol.*



*When asked "Which, if any, health conditions do you think can result from drinking too much alcohol?"

Redrawn with permission from Cancer Research UK:

www.cancerresearchuk.org/sites/default/files/an_investigation_of_public_knowledge_of_the_link_between_alcohol_and_cancer_buykx_et_al.pdf

Weekly drinking guidelines (updated by the UK's Chief Medical Officers in January 2016)

This applies to adults who drink regularly or frequently, ie most weeks.

The Chief Medical Officers' guideline for both men and women is that:

- > to keep health risks from alcohol to a low level it is safest not to drink more than 14 units* a week on a regular basis.
- > if you regularly drink as much as 14 units per week, it is best to spread your drinking evenly over 3 or more days. If you have one or two heavy drinking episodes a week, you increase your risks of death from long-term illness and from accidents and injuries.

- > the risk of developing a range of health problems (including cancers of the mouth, throat and breast) increases the more you drink on a regular basis.
- > if you wish to cut down the amount you drink, a good way to help achieve this is to have several drink-free days each week.

*A unit of alcohol is equivalent to 10ml of pure alcohol content. A single measure of spirits contains one unit, while a pint of regular strength beer or cider and a 175ml glass of wine each contain two units.

