Beer & Health

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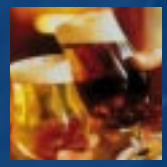
Beer & Health

BENEFITS OF MODERATE BEER CONSUMPTION



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BENEFITS OF MODERATE BEER CONSUMPTION

Introduction

- Beer is a wholesome beverage that has been a staple part of our diets for many thousands of years.
- We are proud of the range and quality of European beers from traditional stouts to fruit beers. It is now clear that they are not only good to drink they are also good for health when consumed moderately and regularly (2-3 drinks per day).
- There has been a great deal of publicity surrounding the health benefits of wine. Beer, like wine, contains a number of components like antioxidants which can be beneficial to health, as well as other nutrients such as vitamins which come from the malted cereals.
- A one-day seminar to examine the health benefits of moderate alcohol consumption and the healthful properties of beer was held in November 1999. Speakers included Professor Dr Hans Hoffmeister: Freie Universität, Berlin, Dr Denise Baxter: Brewing Research International, UK, Professor Dr Diederick Grobbee: Clinische Epidemiologie Julius Centrum, Utrecht, Dr José Vicente Carbonell Talón: Instituto de Agroquímica y Tecnologia de los Alimentos del Consejo Superior de Investigaciones Científicas, Spain, Dr Jean-Michel Borys: Nutrika Conseil Scientifique et Communication Santé, France, Professor Dr Jaak Ph. Janssens: European Cancer Prevention Organisation, Limburgs University Center, Belgium and Professor Ian Macdonald: Emeritus, Guy's Hospital, London. Their presentations have inspired the production of this booklet.
- The industry is mindful of the dangers of abusive drinking. To this end it participates in educational programs and campaigns to avoid misuse such as those to prevent drunk driving and underage drinking.

* The amount of alcohol in "a drink" can vary considerably depending on the size of the measure and the strength of the drink. Different standard drinks (units) apply in several European Member States. An average value of 10 g of alcohol per drink has been used throughout this leaflet unless the quantity has been stated in the research.

Moderate consumption of beers, wines and spirits is beneficial to health

- Moderate consumption of beers, wines and spirits in contrast to heavy drinking or abstention has been shown in many studies throughout the world to be protective against cardiovascular diseases such as heart attack and some forms of stroke[1]. It is estimated that an intake of 30g alcohol a day (3 glasses of beer) may reduce the risk of coronary heart disease by 24.7%[2].
- One explanation is that the amount of 'good HDL cholesterol' in the blood increases when alcohol is consumed, which decreases the risk of cardiovascular disease. Research has shown that one beer a day (10g alcohol) can increase HDL cholesterol levels by 4%[3].
- Another explanation is that alcohol reduces the tendency of blood to form clots. A consumption of 20g alcohol (equal to two glasses of beer a day) has been shown to improve (lower) the concentration of several blood clotting factors[4].
- Research evidence is also building up to show that moderate consumption of beer, wine and spirits can be protective against gallstone formation[5], osteoporosis (weakening of the bones)[6] and even diabetes[7].
- A weakness with this type of study is that other factors may not be taken into account – the so-called 'confounders'. For example, confounders could be diet, lifestyle and pre-existing diseases and all of these have to be considered to get a measure of the protective effect of alcohol alone. When such confounders are taken into account by research workers, moderate alcohol consumption alone has been shown to give a 17% reduction in risk of cardiovascular disease which puts it on a par with the use of aspirin, weight control, antioxidants and exercise as preventive measures.

Three glasses of beer a day (30g alcohol) should reduce the risk of heart attack by 25%

Beer does you good. The benefits are not confined to wine.

It is the alcohol which has the protective effect and no individual type of drink can claim a monopoly of the beneficial effect

- There have been many studies, which have attempted to show that either beer, or wine, or spirits has the greater protective effect against cardiovascular disease. But when the evidence is examined, there is no clear "winner" because the major protective agent is alcohol[8].
- The same beneficial effect is seen in many different countries with different cultures and drinking habits and this confirms that it is the alcohol that is having the protective effect and no individual type of drink can claim a monopoly of the beneficial effect[9] in relation to cardiovascular disease. Most countries, coincidentally, find the best protective effects with the type of alcoholic beverage that is most popular in that country[8]
- For example, in Germany, where beer is the favourite drink, research has confirmed the beneficial effect of alcoholic drinks[10],[11]. Professor Hoffmeister has calculated that if European beer drinkers stopped drinking there would be an increase in cardiovascular disease, a decrease in life expectancy of about 2 years and a decrease in general happiness!
- Another factor is not just 'how much' but 'how' people are drinking. The latest surveys show that people who 'binge' (drink over 5-6 drinks (40 – 48g alcohol) in a session) are not protected from cardiovascular disease even when their consumption over a week is moderate (13 drinks (130g alcohol) in a week)[12]. Beer drinkers have been shown to binge less and therefore have the most sensible drinking pattern compared to other drinkers[13].

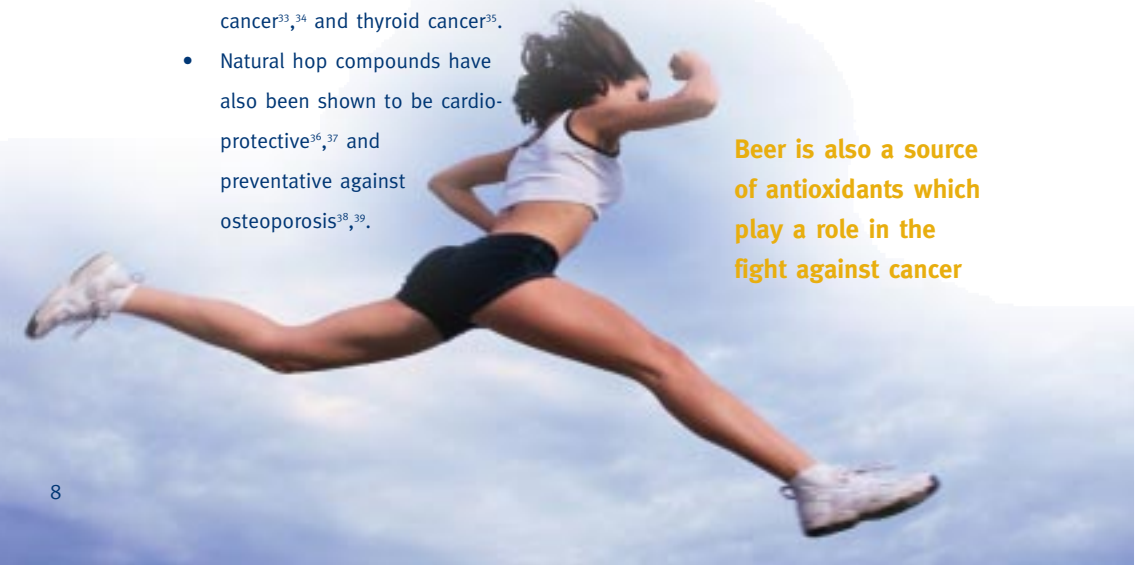
Beer, as part of a balanced diet can provide essential vitamins and minerals.

Beer can make a positive contribution to a healthy diet

- Beer is made from wholesome ingredients: malt, hops, yeast and water. All these materials have natural components which contribute to a healthy, balanced diet[14].
- Beer is 93% water and is an enjoyable means of taking this essential substance. Beer is a thirst quenching long drink which is relatively low in alcohol.
- Beer can be part of a balanced diet, providing essential vitamins and minerals[15] . In particular it has a beneficial balance of minerals. It is high in potassium and low in sodium – the right balance for healthy (low) blood pressure[16].
- It is low in calcium and rich in magnesium which may help to protect against gallstones and kidney stone formation. Additionally hops contain active compounds which prevent the removal of calcium from bones. This may be one reason why daily consumption of beer (a 330ml bottle of 4.5% abv (12g alcohol)) has been shown to reduce the risk of kidney stones by 40%[17].
- Beer drinkers are protected from the organism (Helicobacter pylori)[18] which is known to cause stomach ulcers and may be a risk factor for stomach cancer.
- Beer is also a source of soluble fibre which is derived from the cell walls of malted barley[19]. A litre of beer contains an average of 20% of the recommended daily intake of fibre and some beers can provide up to 60%. As well as aiding a healthy bowel function, this has a further benefit by slowing down the digestion and absorption of food and reducing cholesterol levels which may help to reduce the risk of heart disease[20].

Potential benefits of beer

- Beer is an excellent source of vitamins which are essential for life. In particular beer is rich in the B vitamins for example niacin, riboflavin, pyridoxine (B6) and folate.
- Recent research suggests that vitamin B6 in beer gives beer drinkers additional protection against cardiovascular disease compared to drinkers of wine or spirits[21].
- Folate has been shown to be protective against cardiovascular disease[22] and some cancers[23].
- Beer is also a source of antioxidants which play a role in the fight against cancer[24],[25],[26]. We hear a great deal about the presence of these in wine. What is less well known is that they are also present in beer, where they come from both malt and hops[27]. Per drink (of equivalent alcohol content), beer contains more than twice as many antioxidants as white wine, although only half the amount in red wine . However, many of the antioxidants in red wine[28] are large molecules and may be less readily absorbed by the body than the smaller molecules found in beer. Additionally research has shown that the antioxidant material in beer is more readily available to the body than from solid foods[29].
- Research has shown that the antioxidants (flavonoids) in hops, have the potential to help fight cancer[30] including cancers of the gastrointestinal tract[31],[32], breast cancer[33],[34] and thyroid cancer[35].
- Natural hop compounds have also been shown to be cardio-protective[36],[37] and preventative against osteoporosis[38],[39].

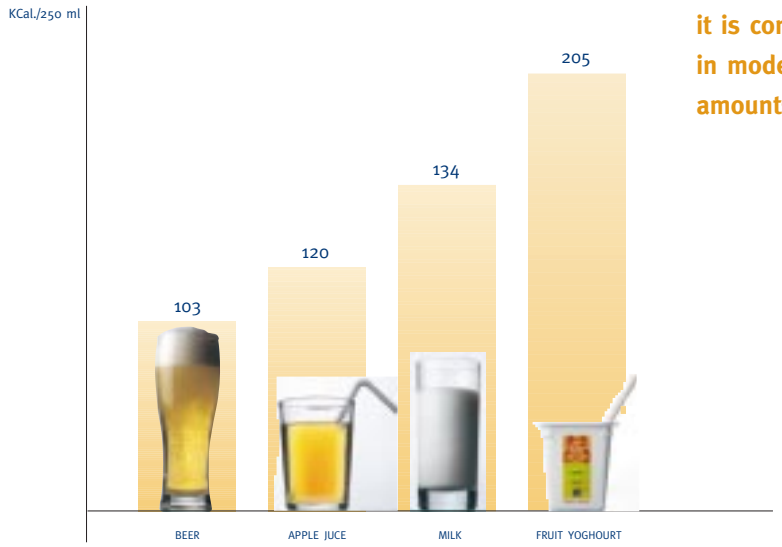


Beer is also a source of antioxidants which play a role in the fight against cancer

Does drinking beer make you fat?

- The term "beer belly" is associated with obesity in beer drinkers in several parts of Europe. This may not be due to the beer but to a confounder. For example, some beer drinkers may have a less healthy lifestyle than wine drinkers.
- Drinking beer does not make you fat, provided that is part of a balanced diet and consumed in moderation with meals[40].
- It has been shown that generally teetotallers have a tendency to be fatter than people who drink alcoholic drinks[41].
- Research also points to less efficient utilisation of the energy contained in alcoholic drinks[42].
- Beer provides calories in similar quantities to soft drinks[43].

Drinking beer does not seem to make you fat, provided that it is consumed in moderate amounts



Questions still to be answered?

- It is not always possible to ascribe effects seen in the laboratory into genuine effects seen in the human body. More research is needed to confirm whether some of the potentially beneficial components of foods and beverages, such as beer and wine, can be used by the body for the prevention of disease.
- In particular more research is needed into the potential anti-cancer and cardio-protective effects of hop ingredients.
- It would be useful to look at how physicians' recommendations on consumption of alcoholic drinks vary between countries. For example, what advice is given to patients who require a low sodium diet and who have a high risk for cardiovascular disease?
- There is a dilemma for the medical profession; – is it ethical to advocate drinking alcoholic drinks; - is it ethical not to when the benefits are well established?

There is a dilemma for the medical profession; – is it ethical to advocate drinking alcoholic drinks; - is it ethical not to when the benefits are well established?

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