



Factsheet



Introduction

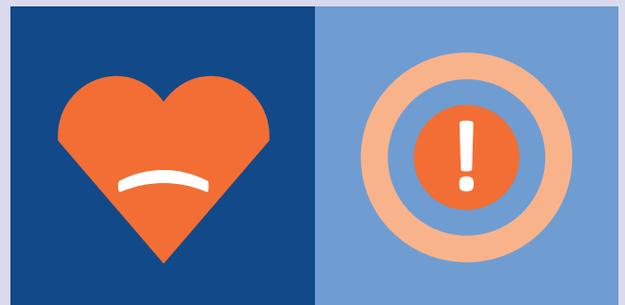
Hypertension, a form of sustained high blood pressure, is a condition experienced by more than one in four adults in England,¹ and alcohol is a major contributory factor in its development. A wealth of clinical research and studies from all over the world have confirmed regularly drinking alcohol raises blood pressure and significantly increases the chance of people developing hypertension in the future.

Hypertension rarely has any obvious symptoms, meaning it is particularly dangerous and often left untreated.² Currently over five million people in England are unaware they suffer from it.¹ Without treatment, hypertension significantly increases the risk of stroke, heart disease, vascular dementia (dementia caused by not enough blood being able to get to the brain) and chronic kidney disease, and despite being largely preventable, high blood pressure costs the NHS over £2 billion each year.³ Alcohol-attributable hypertension accounted for over 300,000 hospital admissions in 2010/11, making it the most prevalent alcohol-related health condition, and is particularly common in those over thirty five years old.³



Regularly drinking alcohol increases the risk of developing hypertension. People are more likely to develop hypertension after having just one drink a day, and drinking two or three increases the risk substantially. More than three alcoholic drinks a day can increase the chance of developing hypertension in later life by up to 75%.⁴

In 2013, one in ten people drank five days a week.⁵ This puts them at serious risk of developing hypertension and damaging their health. Importantly however, the evidence also clearly shows reducing alcohol consumption **lowers blood pressure and reduces the chance of developing hypertension.**⁷ This means alcohol is one of the most important, and preventable, risk factors related to hypertension, and reducing alcohol consumption is a reliable way of improving health.



What is Hypertension?

Hypertension is the medical term for having persistently high blood pressure, when your heart has to work harder to push blood around your body.⁶ It is normally written as two numbers, e.g. 120/80mmHG.

The first number is **systolic pressure**, and measures the force of the blood against your arteries as it is pumped around your body. The second number is **diastolic pressure**, which measures the force against artery walls *between* heartbeats. While blood pressure often changes throughout the day, hypertension is classed as blood pressure which is consistently higher than 140/90mmHG.⁶

Alcohol and Hypertension



Link between Alcohol and Hypertension: a simple, dangerous relationship

The risk between alcohol consumption and hypertension is clear. There is a well documented relationship which shows people have a higher risk of developing hypertension the more alcohol they consume. Having just one drink a day can increase the risk, and the overall risk climbs higher for every drink after that.⁴ The relationship remains significant even when age, weight, gender, ethnicity, diet, exercise and smoking habits are taken into account – meaning it is one of the most controllable and preventable risk factors for hypertension.^{4 7 8 9 10 11 22}

Drinking heavy amounts of alcohol raises blood pressure and significantly increases the chance of developing hypertension.^{4 8} Men have an increased risk after consuming just one drink a day, and women from one and a half drinks.⁴ The health risks quickly and substantially escalate with higher amounts of alcohol: **three drinks a day can increase the chance of developing hypertension by as much as 75%.**⁴

Contested Health Benefits for Women

Some research has previously suggested drinking very small amounts of alcohol – usually less than half of one drink a day – may have a beneficial effect on women's blood pressure.^{4 8 9} However these findings are highly contested, and the methodology of a number of studies which appear to find small health benefits has been called into question for assuming non-drinkers are healthier than they actually are.^{12 13 14}

Doctors and health professionals have reiterated that if any health benefits do exist, they are only small and people should never go over the recommended alcohol limit on the mistaken assumption alcohol is good for the heart.^{15 16} Men should not exceed 3 - 4 units a day and women should not have more than 2 – 3 units.

Drinking Patterns: It's the amount that counts

The total volume of alcohol consumed is the most important indicator for hypertensive risk. Although binge drinkers are often found to have slightly higher blood pressure and a higher risk of hypertension than regular drinkers, the effect is only small when compared to the total amount of alcohol consumption. Regardless of whether people drink every day or weekly, the more alcohol they drink the higher the risk of developing hypertension.^{17 22}



Red wine is good for you: a myth debunked

There is also a common misconception that the type of alcohol consumed affects blood pressure in different ways. In particular, many people believe red wine can offer potential health benefits because of the 'French Paradox,' an idea which attributes the relatively low levels of hypertension and heart disease in France – despite a diet high in saturated fat – to their drinking large amounts of red wine.¹⁸

The 'French Paradox' however has been proved to be a myth.¹⁸ Studies have found no noticeable difference in the effects of beer, wine or spirits on both blood pressure and the risk of hypertension.²² *How* different drinks are consumed is likely to have a greater impact on hypertensive risk than the type of alcohol. For instance, spirit drinkers are likely to have a higher chance of developing hypertension than other alcohol drinkers – but this is because spirit drinkers also tend to drink more alcohol.¹⁸ There is no safe type of alcohol to consume.^{19 20}

The most likely explanation for the 'French Paradox' is that consuming alcohol at meal times increases blood pressure less than drinking on its own. Those who drink outside of meal times have a significantly higher chance of developing hypertension than both non-drinkers and people who regularly drink the same amount, but with a meal or snack.^{21 22}

The research however is unclear in explaining *why* this is the case – although it is likely due to food's effect on the

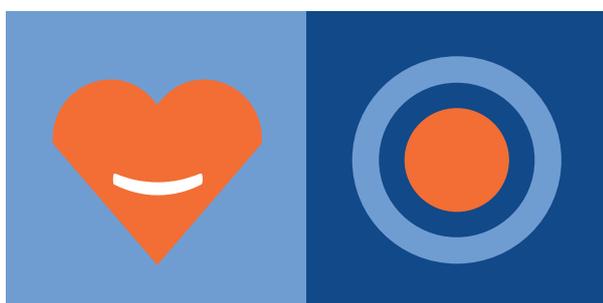
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absorption and metabolism of alcohol, leading to a slower increase in blood alcohol levels and a lower peak.²²

Reducing high blood pressure

The good news is that reducing alcohol consumption is also a reliable way of *improving* blood pressure. Alcohol is one of the most modifiable risk factors of hypertension, which means reducing alcohol consumption is a way of reliably tackling high blood pressure.



If heavy drinkers reduce their alcohol consumption by two thirds, their average systolic blood pressure drops by -3.31mmHG , and diastolic by -2.04mmHG .⁷ However depending on the amount people regularly drink, the amount they reduce their consumption by and their current blood pressure, the reduction can be even higher. The effect was found in people with both high and normal blood pressure, and in those being treated for hypertension. This means reducing alcohol consumption is a reliable way to reduce the risks of hypertension.

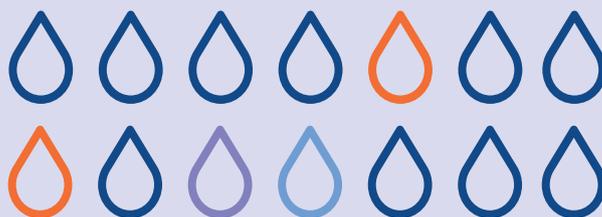
Likewise, in a controlled study where one group of people switched from normal beer to low-alcohol beer for six weeks – a drink which contains 80% less alcohol than regular beer – their systolic blood pressure fell by between 3.8mmHG and 4.4mmHG , and diastolic blood pressure by between 1.4mmHG and 2.5mmHG . There was no change in the level of physical activity, smoking or diet, and many of those who responded reported significant weight loss. The biggest reduction took place almost immediately, and their blood pressure rose again when they resumed normal drinking habits. This underlines the strength of the link between alcohol and blood pressure.²³ On average, there was a drop of 1.1mmHG in blood pressure per every 100m/l of reduced alcohol consumption.

Reducing alcohol consumption and blood pressure improves overall health in a number of ways. High blood pressure increases the risk of developing cardiovascular disease, having a stroke or having a heart attack. Drinking less alcohol can therefore substantially reduce the risk of all these health issues.

Final Word

Regularly drinking alcohol drastically increases the chance of developing hypertension. The risk can increase after having just one drink a day, and gets progressively higher the more alcohol consumed. This relationship remains regardless of age, gender, weight, ethnicity, diet, whether people exercise regularly or whether they smoke. Hypertension substantially increases the chance of stroke, heart disease, vascular dementia and chronic kidney disease, which means regularly drinking alcohol can pose significant health risks.

Hypertension can often be prevented.¹ Drinking less alcohol reduces blood pressure, and consequently the risk of developing hypertension.



This reduces the chance of developing potentially fatal diseases, and can be achieved regardless of age or any other factor. It is never too late to cut back and receive the health benefits of less alcohol.

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