

The myths about alcohol and hangovers (uncovered)

Alcohol is safe if drunk in moderation. Alcohol releases endorphins in the brain which is why it makes us feel good (and why it is so addictive); it also affects the area of the brain that causes inhibition which is why it makes us talk more and feel more relaxed. In this article I only discuss the short term effects of drink. There are also many long term health dangers of heavy drinking. According to Dr Conor Farren, a consultant who deals with alcohol addiction in St Patrick's hospital in Dublin, abuse of alcohol can cause 63 different diseases to our body. I discuss these long term health effects including addiction in more detail in another article which can be viewed at www.whelehans.ie.

In this article I discuss facts about alcohol and dispel some of the myths we have about alcohol. 80% of over 18's in Ireland drink alcohol (79% of women and 81% of men). The department of Health estimates that "loss of productivity due to alcohol" (ie. Hangovers) was €527 million in 2007.

How much do Irish people drink?

Irish people drink less frequently compared with many of our European counterparts Irish people; however when we do drink we drink more than our fellow Europeans and we have a greater tendency to binge drink.

The World Health Organisation defines binge drinking as the consumption of five units or more of alcohol on a single occasion. This equates to 2.5 pints of beer, five measures of spirits or about three glasses of wine. According to a 2007 report by the Drinks Industry Group of Ireland, 90% of Irish people overestimate the amount of drinks that constitutes binge drinking. The same study found that 27% of people thought that binge drinking constituted 10 drinks or more.

Most Europeans (69%) usually have 2 drinks or less in each session. In January, 2012, the average number of drinks consumed by Irish drinkers over 18 during a typical session in a pub/club was 5.6 and 4.2 for those who drank at home. However, the figure for drinking at home could be an under-estimate as we tend to pour ourselves bigger measures when drinking at home.

According to the 2009 Eurobarometer Survey, the prevalence of frequent binge drinking (defined as having five drinks or more at least once a week) was highest in Ireland (at 44%) while 28% of Irish people binge drink every week. However our tendency as a nation to binge drink does seem to be dropping, the prevalence of frequent binge drinking was 54% in 2006. This drop is likely to be due to people having less disposable income due to the recession. A drink in this context means a glass (not a pint) of beer/lager/cider, or a small glass of wine, or a pub measure of spirits.

What causes a hangover?

The unpleasant symptoms experienced during a hangover are mainly caused by three factors. **(1)** The diuretic effect of alcohol that causes the drinker to pass more urine and thus become dehydrated. **(2)** The toxic effects of by-product of alcohol metabolism (acetaldehyde) **(3)** Depletion of Vitamin A, B (particularly B6) and C caused by alcohol. Co-geners are another cause of hangovers. These are impurities created during the fermentation process in some types of alcohol. Low quality wines and many types of dark drinks tend to have high levels of co-geners. A general rule of thumb is the darker your drink, the worse the hangover. For example, red wines, port and brandy have higher levels of co-geners than pale drinks such a white wine or gin so they tend to cause worse hangovers. Recent research indicates that certain chemicals added to some drinks such as preservatives and sweeteners make the hangover worse.

The symptoms of hangovers

According to the National Institute on Alcohol Abuse and Alcoholism in the US, the symptoms of hangovers can include some or all of the following class of symptoms.

Constitutional: Fatigue, weakness, and thirst. **Pain:** Headache and muscle aches. **Gastrointestinal:** Nausea, vomiting, and stomach pain. **Sleep and Biological Rhythms:** Decreased sleep including decreased deep sleep which means the sleep you do get does not leave you refreshed. **Sensory:** Dizziness and sensitivity to light and sound. **Cognitive:** Decreased attention and concentration. **Mood:** Depression, anxiety, and irritability. **Sympathetic Hyperactivity:** Tremor, sweating, and increased pulse and blood pressure.

Why do some people get tremor the day after heavy drinking?

Tremors (or trembling) are actually caused by alcohol withdrawal. Alcohol suppresses the brain, so after a very heavy or long drinking session, the brain goes into overdrive. As the alcohol leaves the system it causes excessive stimulation of the brain which affects the nerve cells thus causing tremors. Tremors usually begin within 5 to 10 hours after the last drink and typically peak at 24 to 48 hours. Along with tremors, the over-stimulation of the brain may cause the person to suffer from a rapid pulse, an increase in blood pressure, rapid breathing, sweating, nausea and vomiting, anxiety or a hyper-alert state, irritability, nightmares or vivid dreams and insomnia. A more serious form of withdrawal which can occur in approximately 1 in 20 people withdrawing from alcohol is called delirium tremens (DTs). The DTs cause temporary state of confusion and leads to dangerous changes in the way the brain regulates circulation and breathing. The body's vital signs such as your heart rate or blood pressure can change dramatically or unpredictably, creating a risk of heart attack, stroke or death.

How long will a hangover last?

Hangover symptoms usually begin within a few hours of the drinking session ending when the blood alcohol concentration (BAC) begins to fall. The symptoms usually peak at the time when the person's BAC returns to zero. Hangover symptoms can last from a few hours to up to 24 hours. Some binge drinkers develop a tolerance for alcohol which means they do not get hangovers, however their performance at work or other areas of their life will be affected.

Is there a cure for hangovers?

There is no cure for a hangover and apart from drinking in moderation (or not drinking) there is no guaranteed way of preventing one. Hangover cures are generally a myth. Dehydration is the main culprit; three times as much fluid is lost than is taken in while drinking alcohol because of the effect alcohol has on the kidneys by inhibiting a hormone called anti-diuretic hormone (ADH). The symptoms of a hangover can be reduced by rehydrating with water before going to bed. The best way to deal with the symptoms "the morning after" is to rehydrate by drinking plenty of fluids. You can replace lost fluids by drinking bland liquids that are easy on the stomach such as still or sparkling water and isotonic drinks. Water also helps dilute the leftover byproducts in the stomach. Adding salt and sugar to water helps replace the sodium and glycogen lost the night before. Many believe that fatty or fried foods the next morning will ease the symptoms; however this is more likely to irritate an already delicate stomach. Over-the-counter painkillers can help with headaches and muscle cramps. Sugary foods may help reduce trembling. An antacid may ease an upset stomach. Food helps slow the absorption of alcohol it takes alcohol longer to reach your blood stream, thus reducing the risk of becoming intoxicated and your hangover may not be as bad.

Replenishing vitamins and minerals lost may help as alcohol robs our body of vitamin A, vitamin C, the B vitamins (especially vitamin B6), magnesium, potassium and calcium. While there is no concrete evidence they help a hangover, some people believe that taking a supplement such as a vitamin C or B complex supplement can help. As a loss of REM (deep) sleep is part of the cause for a hangover, sleeping of a hangover is of some benefit.

Why do hangovers get worse as we get older?

Many of us have heard people saying (or said it ourselves) that hangovers get worse as you hit your 30's or 40's than when you were in your early 20's. Is this just our imagination? Actually, there is truth in this and there is a scientific explanation. Our body uses the enzymes alcohol dehydrogenase (ALDH) and aldehyde dehydrogenase (ADH) to break down alcohol. As we get older, these enzymes reduce in efficiency meaning that it takes longer for the body to get rid of the toxic byproducts of alcohol such as acetaldehyde which leads to longer and more unpleasant hangovers.

How much is too much?

Some people report hangover symptoms after consuming only two or three drinks, while some heavy drinkers never experience hangover symptoms at all. But for most people, the greater the amount of alcohol consumed and the longer the duration of alcohol consumption, the more severe the hangover symptoms.

Alcohol affects women quicker than men

Women build up a higher concentration of alcohol in their bloodstream having drunk the same amount as men. Many people believe that this is down to the fact that women are generally lighter than men. However, the real explanation is that women have proportionally less body water than men meaning their blood alcohol levels will be higher. Therefore if a man and a woman of the same weight drink the same amount of alcohol, the blood alcohol level of the woman will be at least 30% higher. There is also some evidence that women breakdown alcohol at a slower rate than men as it is believed that women have less of the enzyme ADH which breaks down alcohol in the liver.

Does mixing drinks mean the hangover will be worse?

All types of alcoholic beverage have the same basic ingredient, alcohol. Different varieties such as wine, beer, spirits simply have different flavours added to alcohol. It is the volume of alcohol drunk that makes the hangover worse the next day, not the type of drink drunk.

The hair of the dog that bit you

A hangover is simply withdrawal symptoms from alcohol. Having a drink the next day may ease the symptoms temporarily; however it is simply prolonging the inevitable. The "cure" will simply mean your liver will take longer to rid the toxins from your body.

How can I get rid of alcohol quicker from the body?

As the current drink driving campaign playing on the radio explain, your body takes approximately one hour to get rid of one standard drink, that is half a pint, or a glass of wine or a shot. There is no way of speeding this up. For example, drinking coffee will not speed up the process. Another belief is that sweating it off will get rid of alcohol a lot quicker.

However over 90% of alcohol is metabolised by the liver; only about 5 to 10% of alcohol escapes from the body by sweating, urine and your breath.

Therefore "sweating it off" in a sauna or by exercise will not rid your system of much alcohol and only runs the risk of getting more dehydrated.

Drinking plenty of water and mild exercise (eg. A walk) should make the hangover a little less bearable. From a road safety perspective you can still be over the limit for driving well into the next day after drinking the night before.

Is there any way to sober up quickly?

As mentioned in the last paragraph, there is no way to speed up the rate your body gets rid of alcohol. While things like cold shower, fry ups, etc may make you feel a little better; they won't sober you up quicker.

Does lining your stomach with milk slow down alcohol absorption?

Drinking milk before drinking will slow down the absorption of alcohol slightly; however it will not prevent you getting drunk if you drink too much

Blackouts from excessive alcohol

Short term memory loss (blackouts) can be caused by drinking too much alcohol. Large quantities of alcohol, especially when consumed quickly and on an empty stomach, can produce a blackout, or an interval of time for which the intoxicated person cannot recall key details of events, or even entire events. Scientists still do not fully understand how alcohol causes blackouts.

Alcoholic abuse of alcohol over a period of decades increases the risk of memory loss in later life. This is known as alcohol induced dementia and it is estimated that 10% of dementia cases is caused by alcohol. Men who drink six or more alcoholic drinks a day and women who have four or more alcoholic drinks a day for a prolonged period of time are more at risk of alcohol induced dementia. It is caused by damage to brain cells due to long term excessive alcohol use and the loss of vitamin B1 (thiamine).

Thanks to drinkaware.ie for many of the statistics for this article

Disclaimer: This article is meant to give a general overview of the topic discussed; for more specific and detailed information, please speak to a health care professional

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