

What are the physical effects of alcohol?

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Alcohol



- Alcohol is a DEPRESSANT drug. It depresses the functioning of your central nervous system ('CNS'). This means that your MOTOR and SENSORY functions are all sedated.....



So if you are drunk and you hurt yourself, you probably won't notice until the early hours of the next morning (the most common time for people to present to A&E).

Withdrawal symptoms



- Mostly within the first 72 hours.
- 5-15% of dependant drinkers will experience fits. This is not epilepsy, but it can develop into it.
- DT's (delirium tremens) is serious and can occur up to 5 days into abstinence – hallucinations, raised body temperature, agitation, loss of consciousness, confusion

Sleep



- When your level of blood alcohol starts dropping, your CNS starts to become less sedated.
- This usually happens around 4am, when you can find yourself waking up to the slightest noise and not being able to get back to sleep.
- If you don't drink, you may find yourself having very vivid dreams as alcohol interferes with your REM sleep (dream sleep) which then 'rebounds' when you go into alcohol withdrawal. REM sleep is meant to be the battery rejuvenating part of our sleep, which is why we wake up still feeling unrefreshed and tired when we drink to sleep.

Effects



- Whether you consider yourself a binge drinker or daily, the effects of alcohol are just the same. Research has shown that having days off – but squashing loads of alcohol into those other days – can be just as harmful or even more so than if the units had been consumed more evenly.
- The alcohol can be harming you whether you feel it or not. Dependant drinkers – or anyone tolerating large amounts of alcohol – will seem less drunk than others, but the harm that the alcohol is doing their body is the same.
- When you withdraw from alcohol you will probably not sleep well for 4/5 days, but a lot of people find they get a great, refreshing nights sleep by day 5/6. If you take night sedation, it interferes with this natural cycle of your body's recuperation.



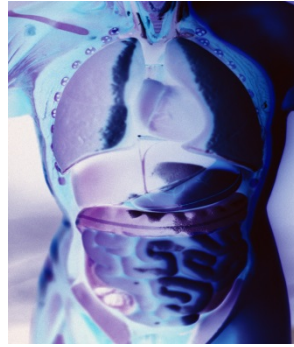
Vitamin deficiency/malnutrition



- Alcohol is one of the main causes of malnutrition in the Western world, mostly due to malabsorption in the small bowel from alcohol damage.
- Lack of Vit B1 (thiamine) can lead to a deteriorating condition called Wernicke-Korsakoff's – a type of dementia. Signs of this can be severe memory problems (and making up stories to fill in the blanks), difficulties in walking (perhaps having a John Wayne type walk) and flickering of the eyes. This has to be treated in hospital with Vit B1 injections.
- Lack of Vit B12 can lead to breakdown of the covering of your nerve endings causing peripheral neuropathy. This feels like pins and needles, usually in your fingers and toes, and can lead to foot drop (where you cannot pick your foot up properly).
- Lack of Vit B12 can also help cause depression.
- **Take your vitamins if you have been prescribed them!!**



Gastro-intestinal tract



- Alcohol is a gastric irritant. People who drink regularly and heavily can develop gastritis and heartburn, necessitating antacid drugs like Omeprazole or Ranitidine.
- Alcohol interferes with the absorption of food in our GI system by decreasing the surface area, relaxing our bowel motility and causing bouts of diarrhoea interspersed with constipation.
- Oesophageal or gastric varices, caused by damage to the GI tract and high blood pressure, can cause huge bleeds – often fatal. Mallory Weiss tears in our oesophagus also cause bleeding and are caused by vomiting (usually to the extent only found in drinkers and pregnant women).

Cardiovascular effects



- Alcohol is a common cause of hypertension, which can cause strokes.
- It is the main cause of ‘beer heart’ – cardiomyopathy.
- It increases the risk of cardiac arrhythmias (changes in the heart’s rhythm). Atrial fibrillation is also known as ‘holiday heart syndrome’ due to people’s increased alcohol intake when away!

The respiratory system



- Aspiration pneumonia (from breathing in fluid such as mouth secretions from being sedated or from vomiting when sedated).
- Sleep apnoea (as the alcohol has a muscle relaxant effect on the pharynx and larynx) and also from the effect of sedating the respiratory centre in the brain.
- Infections from the lungs' reduced ability to defend themselves (from alcohol reducing the bacteria which fight flora and fauna)

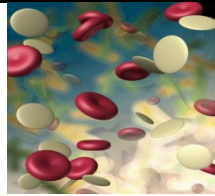


The liver

- Chronic drinking can lead to liver problems. Every unit you drink needs to be broken down by the liver. Except for about 5-10% which is excreted through the lungs etc, the liver breaks down all your units at the rate of one unit per hour.
- So, if you are drinking over 24 units a day, your liver is getting almost no break at all.
- Units – work out your intake!
- Liver problems are often initially shown up in LFT's, or Liver Function Test bloods. You may have a raised GGT which shows that although your liver may be still healthy, it is being affected by the alcohol. ALT raised levels can show signs of liver disease.

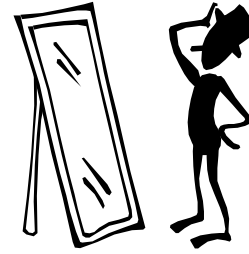
- A 'Fatty liver' is the first and most common finding in heavy drinkers. Fat deposits are accumulated in the cells of the liver, causing malfunction. The prognosis is GOOD with abstinence.
- However, if those patients keep drinking, 30% will deteriorate on to cirrhosis within 10 years.
- "Once alcoholic hepatitis and cirrhosis develop, continuing alcohol consumption is a major predictor of poor prognosis. In clinically compensated alcoholic cirrhosis, the 5-year survival is about 90% in persistent abstainers, while lower than 70% in persistent drinkers. Once decompensated liver disease develops, the 5-year survival falls to 30% at best in patients who continue drinking."

Blood tests



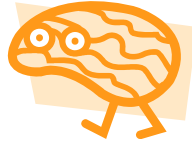
- Changes may also occur in your Full Blood Count tests. Alcohol can change the size and consistency of your red blood cells (produced in the long bones of our body like the femur) leading to anaemia (changes can be seen as raised MCV or MCHC). You can look at the site Labtestsonline.org.uk to get more info about blood tests.
- You may also start to notice tiredness (from anaemia), bruising easily (from poor clotting), bleeding (from poor clotting and high blood pressure), an enlarged belly (from an enlarged liver or 'ascites', where fluid collects in the abdomen and needs to be drained), yellowing of the skin (from bilirubin not being excreted), back pain around your right side (where your liver is situated), nausea or vomiting.
- You may also be told that you suffer from hypertension (raised blood pressure) which may need to be treated with drugs.

Your appearance



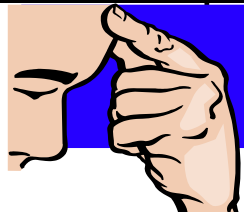
- You may have rough or reddened skin on your face, or small broken veins. The palms of your hands may look very red and raised (palmar erythema). If you suffer from psoriasis or eczema this can also be exacerbated by alcohol (although conversely it can also flare up temporarily, when detoxing, for a short period before it improves). Your belly may be distended (as discussed in the last slide), but you may be underweight in other areas (such as having skinny legs). Your hair may be dry and coarse.

diabetes

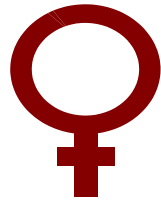


- Your GP may also find that your blood sugar is raised, a precursor for diabetes. This is because the alcohol also affects your pancreas where insulin is produced (acetaldehyde inhibits insulin secretion). Your GP may offer you a glucose tolerance test.
- Alcohol contains empty calories with no nutrients, which can be deposited as fat. It can also give you a sugar rush – which is why when people stop drinking they can crave fizzy drinks or sweets!

Common mental health problems from alcohol



- Anxiety, social phobias, sleep disorders and depression are all common presentations which are made worse by alcohol – or can even cause them in the first place. When we withdraw from alcohol we may find these problems get worse for a short time before they get better.
- Antidepressants (citalopram, paroxetine etc), anxiolytic tablets (like Diazepam) and SHORT term sleeping tablets (like Zopiclone) are usually NOT prescribed because the main thing keeping the problems going is alcohol.
- Alcohol prevents our brains receptors from taking up our own natural antidepressants, so we stop producing them. But even if we start to take artificial antidepressants we are still not going to absorb them properly until we take a break from the alcohol.



Hormonal changes



- Hormonal changes: Women may find their periods stop or are very irregular. Chronic alcohol use can seriously interfere with fertility.
- But you must **STILL TAKE PRECAUTIONS** when having sex. Lack of periods does **NOT** mean you will not get pregnant.
- Drinking during pregnancy can also have a detrimental effect on the foetus, causing low birth weight, alcohol withdrawal and Foetal Alcohol Syndrome.
- Men may find the area around their breasts enlarges (gynacomaestia) or that they have sexual problems. A study in 2007 showed that out of 100 male alcohol dependant patients:

'Seventy-two per cent had one or more sexual dysfunction, the most common being premature ejaculation, low sexual desire and erectile dysfunction. The amount of alcohol consumed appeared to be the most significant predictor of developing sexual dysfunction.'

references

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