

RANDOX

TESTING SERVICES

Effects of Alcohol on the Human Body

When you drink alcohol, it's absorbed into your bloodstream and affects every part of your body. This can put your health at serious risk. Even a small amount of alcohol has an effect on your body. This poster will outline the impact of alcohol on the different parts of the human body.

Effects of Alcohol on the Brain

- Alcohol depresses the brain centres, which enhances effects of calming agents on the brain, and slows down the rate at which information travels down the brain's highways. This is what causes its disorienting effects as well as deterioration of motor skills and judgement.
- If too much alcohol is consumed, these brain centres can become so severely impaired that you could fall into a coma or die.
- Alcohol releases dopamine in the brain's reward centres, which is what gives drinking alcohol its pleasurable sensation.
- The depression of brain centres can also trigger adverse effects on memory. Even a few drinks can have a detrimental impact on a person's memory. Studies show females are more susceptible to these effects from men due to the differences in how genders metabolise alcohol.

Effects of Alcohol on the Liver

- When the liver attempts to break down alcohol, the resulting reaction can create inflammation and, over time, irreversible damage to the liver. Over time, this type of prolonged stress to the liver can result in profound liver changes, such as enlargement, scarring, or cirrhosis.
- Alcohol also inflames the liver's cells, causing swelling that can trap or inhibit normal bile flow. If bile buildup occurs, the skin and eyes will turn yellow, a condition called jaundice. Jaundice results when a red blood cell breakdown pigment is reabsorbed in the blood and deposited abnormally in other body tissues.

Effects of Alcohol on the Stomach & Intestines

- As alcohol travels to the stomach, it's absorbed into the bloodstream or passes through to the intestines.
- However, some alcohol does neither. Some can stay within the stomach, increasing the stomach's acidity and irritating its protective lining. This irritation, when experienced chronically, can lead to corrosion of the stomach lining. Even moderate alcohol consumption can give to or exacerbate existing stomach and intestinal ulcers.
- When alcohol travels to the small intestine, it can do damage by interrupting the digestive system. It blocks the body from absorbing thiamin, folic acid, fat, Vitamin B1, B12, and amino acids.

Effects of Alcohol on the Bladder & Kidneys

- Alcohol is a diuretic, which causes frequent urination.
- Consuming alcohol can also inflame the lining of the bladder, causing it to swell and stretch. If it swells, this can then block flow to the kidneys, which could cause renal failure.

Effects of Alcohol on the Mouth, Throat & Esophagus

- Alcohol consumption and its effects start with the point of entry. Alcohol is an irritant; it burns when it touches any bodily surface. When alcohol is consumed it can cause damage to the delicate lining of the esophagus.
- With prolonged heavy consumption, alcohol can lead to the development of various head and neck cancers. Drinking five drinks a day or more can potentially double or triple the risk of developing cancer of the mouth, throat or voice box.

Effects of Alcohol on the Heart

- On a short-term basis, as alcohol passes through the heart, it can cause inflammation of the muscle's walls.
- Both long-term drinking and binge drinking negatively affect heart rate, disrupting its rhythm by causing it to speed up and beat irregularly.
- Alcohol can lead to a condition called alcoholic cardiomyopathy. This condition causes heart muscles to weaken from repeated toxic exposure from alcohol abuse over time. The heart's pumping function becomes inefficient and reduces its effectiveness at sending blood throughout the body.
- Long-term drinking can not only lead to disastrous heart problems such as hypertension, but can also cause strokes. Binge drinkers are 56% more likely to suffer from an ischemic stroke over a 10-year period.

Effects of Alcohol on the Pancreas

- Even a single, isolated incident of binge drinking has been known to result in an episode of acute pancreatitis. Alcoholic inflammation of the pancreas can lead to chronic fibrosis, which can cause insufficiency in both the exocrine and endocrine systems.
- Pancreatitis can lead to other medical conditions as well, such as severe abdominal pain, diabetes, jaundice, and even circulatory collapse.

Effects of Alcohol on the bloodstream

- Studies have shown that moderate alcohol intake can result in a 'blood thinning' phenomenon. However, excessive alcohol use can elicit the opposite reaction.
- Once alcohol is in the bloodstream, it can lead to hypercoagulable state – bringing platelets and red blood cells together, causing them to clump up. These "sticky" red blood cells increase the chance of clot formation and can slow circulation and deprive tissues of needed oxygen.

