

## Effects of alcohol on the body

The affects that alcohol has on the body are consistently predictable regardless of the use pattern. Alcohol is a mood altering depressant drug. The reason that alcohol can cause such extensive damage to the body is because it can travel everywhere. There is no body cell resistant to alcohol. The first stop is the stomach, where alcohol is absorbed directly into the blood stream. Food will slow the absorption of alcohol as will fruit juice and water. Vomiting is one of the body's defenses against an alcohol overdose, and is caused when you drink too much.

Alcohol moves quickly to the brain and passes the blood-brain barrier, which normally keeps harmful substances away from the brain. In the brain, alcohol affects the neurons, causing judgment problems, coordination problems, and a host of other problem.

Once in the blood stream, alcohol goes to the liver for detoxification, or breaking down, by the alcohol-attacking enzyme alcohol dehydrogenase. Eventually, the alcohol is broken down and excreted from the body.

### Side Effects

**Your Appearance** - If you want to have clear skin and bright eyes, don't drink alcohol. According to researchers, more than one or two drinks a week promote aging. Alcohol is considered a food with non-nutritional calories that quickly add up. When you abuse alcohol, you tend to be undernourished, making your hair dry, giving you cracked lips, aggravating acne, making your eyes look glassy, and giving your skin a puffy, broken vein look. (WC Field's nose)

**Your Brain** - Alcohol is a depressant that slows down brain activity. While one or two drinks makes most people feel relaxed, more alcohol may cause feelings of anxiety, depression, and often aggression. Alcohol's first effect as it reaches the outer brain is to distort your judgment and lower you inhibition, while producing euphoria (a sense of pleasure). As you consume more alcohol, and it reaches the cerebellum, your coordination and perception are affected, and you can have memory blackouts. As the alcohol reaches your mid-brain, reflexes diminish, you experience confusion, stupor, and may lapse into a coma. Once the alcohol finally reaches the medulla, or inner core of the brain, your heart rate drops and breathing ceases, resulting in death. Research suggests that continued alcohol use can cause depression. Alcohol robs brain cells of water and glucose, the brain's food, contributing to a hangover the next day.

**Your Gastrointestinal Tract** - The stomach is irritated by alcohol, causing increased stomach acid production, causing heartburn and eventually ulcers. Alcohol use is linked to cancer of the mouth, esophagus, stomach, and intestines. The liver, due to its role in breaking down alcohol, suffers the most

damage. Alcohol use leads to destruction of liver cells, fat accumulation around the liver, and cirrhosis which can be fatal. Alcohol is also a diuretic, which causes the kidneys to increase urinary output, contributing to dehydration and your hangover.

**Other** - Alcohol depresses the body's immune system making it easier to get sick. It also disrupts your sleep patterns, further depressing the immune system. Alcohol has been linked to an increased risk of breast cancer, high blood pressure, diabetes, kidney disease, heart disease, constipation, and strokes. Alcohol is toxic to unborn children causing permanent tissue and organ damage.

**General:** Alcohol tolerance varies to some degree among individuals. For instance, heavy drinkers or alcoholics have higher tolerances than first-time or infrequent drinkers. In general, males have higher tolerances than females because they typically weigh more and have more water in their bodies. Unless an individual has an exceptionally high tolerance, a blood alcohol content (BAC) rating of 0.20 reflects serious intoxication. As an example, if an individual's BAC is 0.10%, it means that there is one gram of alcohol per 1,000 grams or 1,000 milliliters of blood.

**0.01-0.06 BAC levels:** Individuals with a BAC of 0.01-0.06 typically feel relaxed and less inhibited. Many people start to feel happy and experience a general sense of wellbeing. Individuals typically have impaired judgment, coordination, concentration, and alertness.

**0.06-0.1 BAC levels:** Individuals with a BAC level of 0.06-0.1 typically feel uninhibited and exhibit extroverted behavior. Individuals are less sensitive to touch. For instance, an individual may fall down and feel much less pain than he/she normally would. Individuals typically experience blurred vision, as well as impaired reasoning, depth perception, reflexes, peripheral vision, and glare recovery (how quickly an individual's visual functioning returns after a glare was encountered).

**0.11-0.20 BAC levels:** Individuals with BAC levels of 0.11-0.20 often experience mood swings or feel angry or sad. People typically have impaired reactions times, decreased motor control (e.g., they may be staggering or have difficulty walking a straight line), and slurred speech.

**0.21-0.29 BAC levels:** Individuals with 0.21-0.29 are extremely intoxicated. They are unable to comprehend others or speak coherently. They may have impaired sensations, severe motor control impairment, and loss of consciousness. Often, individuals who become this intoxicated will experience a memory blackout. In other words, the person will be unable to remember certain things that happened when they were intoxicated.

**0.30-0.39 BAC levels:** Individuals with BAC levels of 0.2-0.39 may become unconscious and death is possible. They typically have impaired bladder function, slowed breathing, and a decreased or faint heartbeat. An individual who shows these signs should immediately be taken to the nearest hospital because these are signs of alcohol poisoning. Alcohol depresses nerves that control involuntary actions such as breathing and the gag reflex. A fatal dose of alcohol will eventually stop these functions.

**0.4 BAC levels and above:** Individuals with BAC levels of 0.4 and above will become unconscious. Breathing will become very slow and the individual's heartbeat will be slow and faint. Patients should be taken to the hospital immediately in order to prevent death. In rare and extreme cases, some individuals have survived after having BAC levels as high as 0.9.

**Myths about sobering up:** Individuals cannot speed up the time it takes to become sober. It is commonly believed that drinking coffee, taking a cold shower, or sleeping it off helps individuals become sober after drinking. However, these methods do not decrease BAC or increase the metabolism of alcohol.

### **What is Cirrhosis of the liver?**

Cirrhosis is a slowly progressing disease in which healthy liver tissue is replaced with scar tissue, eventually preventing the liver from functioning properly. The scar tissue blocks the flow of blood through the liver and slows the processing of nutrients, hormones, drugs, and naturally produced toxins. It also slows the production of proteins and other substances made by the liver.

According to the National Institutes of Health, cirrhosis is the 12th leading cause of death by disease.



And remember: Drive on the right except to pass...