

Alcohol, Good or Bad?

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Figure 1

Figure 2

Read this article carefully to answer the question alcohol, good or bad?

We are in a world where people are ignorant of their health especially the youth. Due to the increasing alcoholic beverages in the system today, the youth especially have taken advantage of that to consume alcohol without knowing the health implications associated with its intake. With this introduction you can predict my stand pertaining to the question ALCOHOL, GOOD OR BAD. I do not know your stand but whatever your answer is I would entreat you to read this article to educate yourself and others on the intake ALCOHOL.

This information has been simplified to suit the layman's perspective about alcohol. Alcohol's effects on the body starts from the moment you take the first sip. The intake of alcohol is very harmful to your health even though many people take alcohol for several reasons, it has both short term and long term effects on the human body. In this article you will get to understand the effects alcohol has on the body.

General introduction on alcohol

Alcohol is a depressant meaning that when it reaches the brain, it slows down the body's systems. When you drink alcohol or alcoholic beverages, it is absorbed through the stomach and enters the blood stream.

The liver is an organ which helps break down harmful substances including alcohol into harmless byproducts and clears it from the body.

The liver can only break down a certain amount of alcohol at a time but when it becomes too much for the liver to break down, the blood alcohol levels rises causing severe symptoms of toxicity. If the levels become toxic to the body, it can cause loss of consciousness and even death.

Alcohol is very addictive(dependence) and it is of high tolerance to the body. Reducing the amount of alcohol, you consume a day or taking it moderately is still dangerous.

Since alcohol is very addictive(dependence) and of high tolerance, the body's demand for it increases in order to experience the same effect when it was first taken. This compels the user to increase the quantity.

For example, if the user consumes one bottle of alcohol daily, when the user develops tolerance, in order to experience the same effect, he or she has to consume two or more bottles of alcohol daily. This will gradually increase the levels of alcohol in the body beyond which the body can tolerate.

So the best advice is to abstain from alcohol.

The term alcohol dependence is used in most report of alcohol abuses and has generally replaced the term alcohol addiction.

Alcohol addiction (alcohol dependence): This is when an alcoholic person requires continuous administration of alcohol to prevent a characteristic set of withdrawal syndrome (the unpleasant physical reactions that follow ceasing the intake of alcohol).

Alcohol tolerance: This is when the body is used to the effects of alcohol so that larger quantities must be taken to obtain the same effect produced by smaller quantities when it was first taken.

Alcohol affects almost every organ in the body. It can push the liver into a diseased state, cause cardiac or heart dysfunction, precipitate anemia etc.

Now let’s delve more into the diseases caused by alcohol.

Some of the diseases associated with the intake of alcohol

- Cirrhosis of the liver
- Pancreatitis
- Cancer
- Ulcers and gastrointestinal problems
- Immune system dysfunction
- Brain damage

How does alcohol affect the liver?

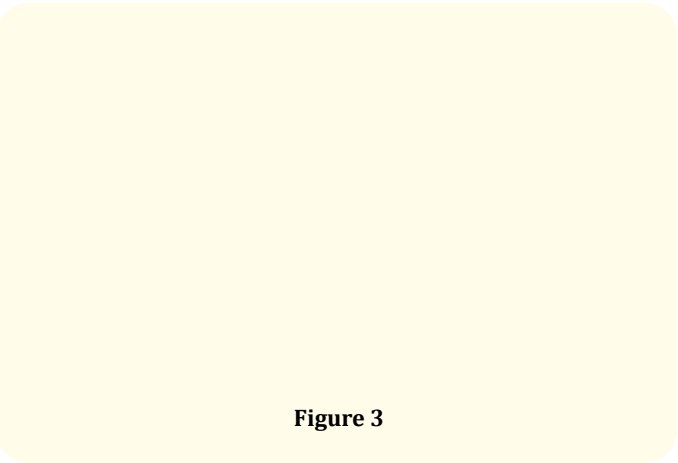


Figure 3

Harmful substances in the body are broken down and filtered out by the liver. The liver also converts vitamins, nutrients, and medicines into substances that can be used by the body.

Almost ninety percent of alcohol consumed is processed by the liver. The remaining ten percent leaves the body through sweat, urine and breathing.

The liver can only process a certain quantity of alcohol within a period of time. When excess quantity of alcohol is consumed, the unprocessed alcohol circulates through the blood and starts affecting the brain and the heart as a result of toxicity. This leads

to the destruction of liver cells which results in scarring of the liver(cirrhosis), alcoholic hepatitis and cellular mutation causing cancer. The scarring can completely invade the liver causing it to be hard and nodular which is known as liver cirrhosis.

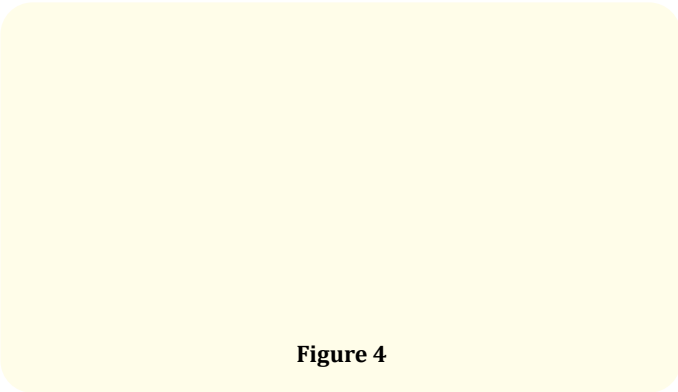


Figure 4

What are some of the symptoms of a liver disease?

- Dark urine
- Itchy skin
- Fatigue
- Discolored stool
- Nausea and vomiting
- Yellowish skin and eyes (jaundice)
- Swelling in legs

Note: Liver disease caused by alcohol can be reversed by stopping the intake of alcohol.

How does alcohol affects the pancreas?

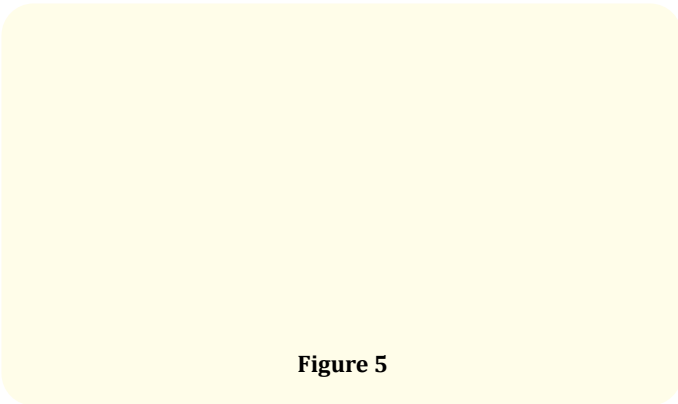


Figure 5

The intake of alcohol can lead to pancreatitis which is a painful inflammation of the pancreas. The pancreas is a gland which is part of the digestive system and produces insulin and other important enzymes and hormones that help to break down food.

Alcohol causes abnormal activation of digestive enzymes (chemicals) produced by the pancreas. Buildup of these chemicals can lead to inflammation of the pancreas. It can become a long term condition and cause serious complications.

The pancreas helps to regulate the body’s insulin response to glucose. Improper functioning of the pancreas can lead to high levels of glucose in the blood (hyperglycemia) due to the reduced levels of insulin as a result of the diseased pancreas leading to diabetes.

Insulin transport blood glucose to the body cells and tissues. When the pancreas is damaged totally, it means that there is no production of insulin; therefore, the blood glucose levels will increase (hyperglycemia). That is why diabetic patients must not take alcohol. In my next blog I will delve more into diabetes.

How does alcohol causes cancer?

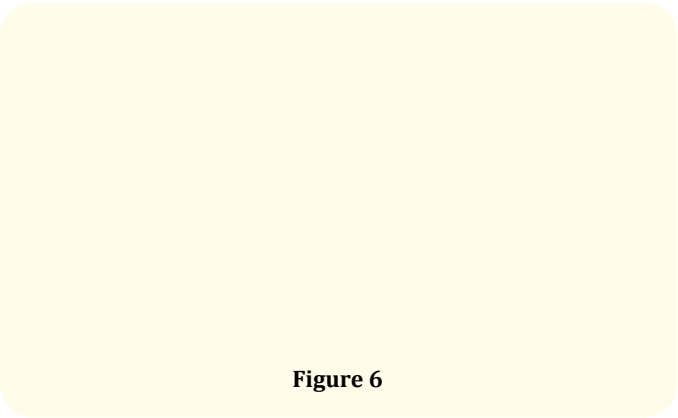


Figure 6

The intake of alcohol can increase the risk of developing different cancers such as mouth, esophagus, larynx, stomach, liver, colon, and breast cancer. Cancer is a disease in which abnormal cells divide uncontrollably and destroy body tissue.

According to the National Cancer Institute, researchers have hypothesized multiple ways that alcohol may increase the risk of cancer including

Breaking down of alcohol in alcoholic drinks by the liver to (acetaldehyde) a toxic chemical and also a substance that is capable of causing cancer(carcinogenic).

Impairing the body’s ability to break down and absorb a variety of nutrients that may be associated with the risk of cancer, including vitamin A; nutrients in the vitamin B complex, such as folate, vitamin C, vitamin D, vitamin E and carotenoids.

Generating reactive oxygen species, a chemical which is very toxic to the body.

Increasing blood levels of estrogen; a sex hormone linked with the risk of breast cancer.

How does alcohol cause ulcers and gastro intestinal problems?

The intake of alcohol can cause several problems such as heartburn, gastroesophageal reflux disease (GERD), stomach ulcers, and inflammation of the stomach lining, known as gastritis.

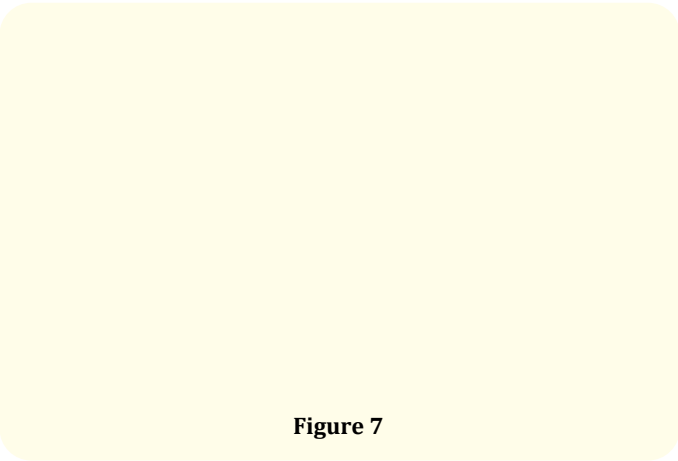


Figure 7

Alcohol penetrates the gastrointestinal tract (GIT) and exerts its toxic effects, causing severe damage to the GIT which can lead to dangerous internal bleeding.

Gastric acid is produced in the stomach, and aids in the digestion of food in the stomach. Alcohol interferes with gastric acid secretion in the stomach causing the gastric acid to be over- secreted.

Over- secretion of gastric acid damages the stomach lining or gastric mucosa. It is one of the aggressive forces leading to ulcers such as peptic ulcer (a sore that develops on the lining of the esophagus, stomach or small intestine).

How does alcohol cause immune system dysfunction?

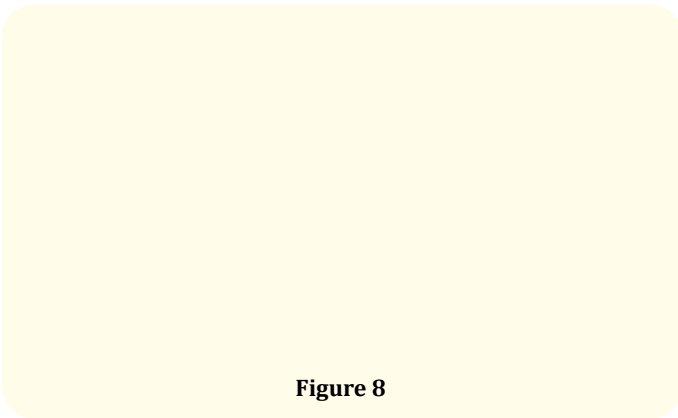


Figure 8

The intake of alcohol weakens the immune system exposing it to several infectious diseases such as pneumonia etc.

Alcohol causes changes in red blood cells, white blood cells, and platelets which are responsible for immunity.

Alcohol suppresses the body’s production of white blood cells which are responsible for fighting against harmful (pathogenic) organisms in the body.

How does alcohol affect the brain?

Alcohol affects the brain causing blurred vision, slurred speech, difficulty in walking and impaired memory.

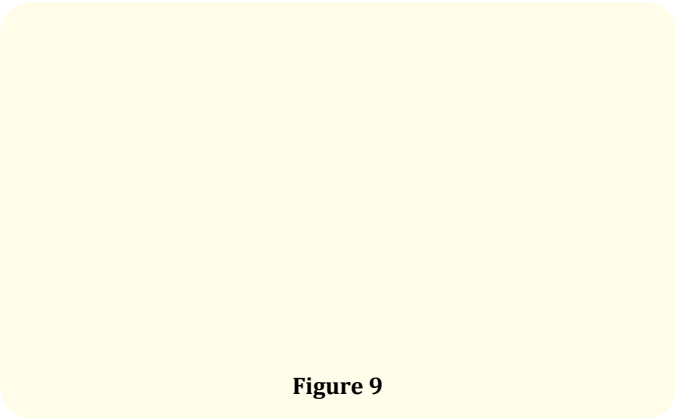


Figure 9

Some of these impairment can be detected after taking one or two drinks and quickly resolves when the drinking stops.

Exactly how alcohol affects the brain and the likelihood of reversing the impact of heavy drinking on the brain is still under study.

From the National Institute on Alcohol Abuse and Alcoholism(NIAAA), people who have been drinking large amounts of alcohol for long periods of time run the risk of developing serious and persistent changes in the brain.

Damage may be as a result of direct effect of alcohol in the brain or may result indirectly from a poor general health status or severe liver disease.

Thiamine deficiency is a common occurrence in people with alcoholism and results from overall poor nutrition. Thiamine, also known as vitamin B1, is an essential nutrient required by all tissues, including the brain.

Drinking during pregnancy can lead to a range of physical, learning and behavioural effects of the developing brain. The most serious is a collection of symptoms known as Fetal Alcohol Syndrome(FAS).

FAS infants also are markedly smaller than average. Their brains may have less volume. They may have fewer number of brain cells(neurons) or fewer neurons that are unable to function correctly, leading to long term problems in learning and behaviour.

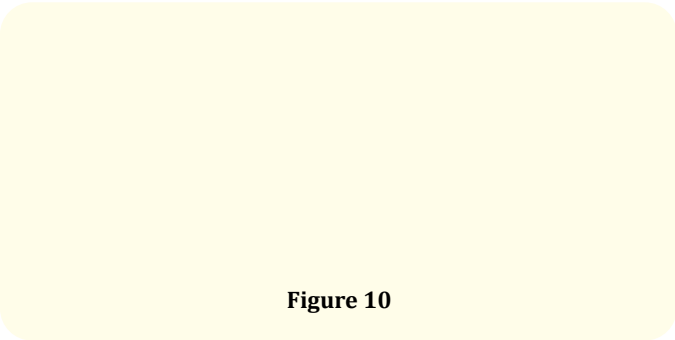


Figure 10

The intake of alcohol is very dangerous to our health and I will entreat everyone to avoid its intake.

Aside alcohol being harmful to our health, it has a great cost on the individual and the society.

- It causes increase in crime and violence.
- Increase in rising in medical cost through expensive rehabilitation and treatment programs.
- It causes increase in taxes to pay for the rehabilitation programs.
- lowers productivity and causes loss of creative potentials.

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