

ALCOHOL POISONING

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Alcohol Poisoning

Introduction:

Alcohol poisoning is a serious consequence of consuming large amounts of alcohol over a short period of time. What some people may find funny is not a joke to the people's lives that have been taken by it. Although it does not always result in death it is a risk you take when consuming any alcoholic contents. Drinking too much alcohol too quickly affects your heart rate and breathing. These are two very important factors that play a huge role in our everyday survival. Binge drinking is the main cause of alcohol poisoning. Binge drinking is when you rapidly drink five or more drinks in a row in a short period of time. I chose to research alcohol poisoning because I feel that it is a very controversial topic on college campuses. Most students know the consequences of drinking but choose to ignore them. Everyone thinks they can out drink each other. We should really be considering that one night of drinking could end our lives. In the past five years two of my best friends have been sent to the hospital because of alcohol poisoning. It is not something to be proud of and I am very lucky they made it out alive.

Background and Problem Statement:

There are many different problems associated with alcohol. When regarding alcohol consumption many Americans have no understanding of their limit. This becomes a huge issue with our health and environment. Not only does alcohol have no beneficial effects on the body but it only causes future problems. Alcohol can damage many organs, such as the stomach, liver, and kidneys. If consumed under the age of twenty-five damage to the brain will occur as well. Alcohol can also cause many forms of cancer such as oral, lung, stomach and liver cancer. The chemical compound broken down in alcohol is called, Acetaldehyde. Acetaldehyde can commonly be found in cigarette tobacco. Alcohol is a huge part of substance abuse. Most Americans especially teenagers are unaware of the outcomes and abuse the privilege of being twenty-one.

Alcohol can result in motor vehicle accidents, injuries and drug abuse. This is a huge public health problem because these are all preventable problems. If our country didn't abuse alcohol we could have a much higher life expectancy. The HP2010 has goals to decrease the amount of drunk drivers and increase the age/proportion of adolescents who remain alcohol and drug free. These goals will save lives and hopefully make a change for the better. We need to start educating children young on alcohol prevention. The more educated we are the more knowledge we have to live healthy lives. HP2010 is written to educate our society on the changes that need to be made. Substance abuse is a huge part of HP2010 because it is a reoccurring problem with numbers increasing every day.

- **Web Site #1 Name: Healthy People 2010 “Substance Abuse”**
- **Web address: <http://www.healthypeople.gov/Document/html/tracking/od26.htm>**
- **Background Information:**

Although HP2010 did not have anything specifically about alcohol poisoning, it had a lot to do with the negative effects of alcohol. For instance, it first discussed motor vehicle deaths and injuries. This intertwines with my topic because it is a result from alcohol poisoning. Driving under the influence can result in multiple deaths of the driver and passengers. NHTSA defines a fatal crash as alcohol-related if either a driver or a non-motorist has a measurable or estimated blood alcohol of 0.01 or above. A BAC of .450 is when the breathing stops. This means that even getting behind the wheel after one drink can lead to a fatal crash. If a BAC of 0.01 can end in death or injury, imagine what a BAC of .450 will result in. Substance abuse such as alcohol poisoning is a point in which we should never be close to reaching when consuming alcohol. This is a huge public health issue because we are losing way too many lives because of drunk drivers. We need to monitor the amount of alcohol we consume.

- **Web Site #2 Name: Alcohol Use and Health**
- **Web address: <http://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>**
- **Background information:**

Since I could not find any more information through HP2010 I resorted to other sites to address my topic. Centers for Disease Control and Prevention addressed many different issues pertaining to alcohol use. This is a huge issue in public health due to the fact that we lose about 75,000 lives annually to alcohol abuse. Annually we have lost an average of 30 years of potential life lost for each death. The immediate health risks associated with alcohol abuse or alcohol poisoning start with unintentional injuries including falls, drowning, burns, and unintentional firearm injuries. Other health risks also involve violence, sexual behaviors, miscarriage, and poisoning. Some long-term risks could be neurological problems, cardiovascular, social and cancer of the mouth and throat. This is a huge health problem because it is all preventable. We cannot prevent certain cancers or certain diseases but when it comes to anything caused by alcohol, we can stop it. One of the biggest issues of alcohol poisoning would be the health risks that come along with it.

- **Web Site #3 Name: American Association of Poison Control Centers**
- **Web address: <http://www.aapcc.org/dnn/PoisoningPrevention.aspx>**
- **Background information:**

The AAPCC is an organization that discusses major public health issues. When thinking of alcohol poisoning people tend to ignore risks of substances other than alcoholic drinks. For instance consumers ignore the poison in household products, antifreeze, paints, solvents, lotions, and etc. The AAPCC focuses on poison prevention and treatment. This non-profit organization deals with the health issue of any sort of alcohol poisoning to humans. About 70% of their calls are managed right on site. Poisoning is a huge issue in our society today because people are either not knowledgeable about what is harmful to the body or it is unintentional. Alcohol poisoning is a public health issue because it is increasing as the years go on. Personally, I think it is because Americans are unaware of what substances contain alcohol or how much they are truly consuming.

Research:

- **Web Site #1 name: “Drinking alcohol Damages Teenagers Brains”**
- **Web address: <http://www2.potsdam.edu/hansondj/HealthIssues/1127400726.html>**
- **Summary of Research:**

Drinking large quantities of alcohol in a short period of time is not the only problem we face today. Public health is also focused around teenagers using alcohol as an antidepressant. Most teenagers enjoy that being “drunk” they can escape their emotions even if only for a few hours. Yet, what they don’t realize is the damage occurring in their brains. Research shows that the human brain continues to develop in people during their early twenties. Exposing alcohol to the developing brain can have a long-lasting effect on the intellectual capabilities. This means that alcohol could have damaging effects to some of the most important parts of the brain such as memory. Researchers got this evidence from human subjects. The long-time alcohol abusers tend not to do as well at many mental tasks as those who do not abuse alcohol. This ties into my topic of alcohol poisoning because it shows how long-term drinking or even one night of excessive drinking can do to the human body. Most damage to the brain is irreversible and not something to mess with. Federally-funded research suggested that teenagers who drink alcohol with their family are less likely to abuse alcohol than teenagers who aren’t allowed to drink. Drinking with parents might teach them responsible drinking habits or destroy some of the excitement of drinking.

- **Web Site #2 name: “Alcohol Poisoning”**
- **Web address: http://www.ubishops.ca/health/h_edu/poison.html**
- **Summary of Research:**

Bishops University did research on potential signs of alcohol poisoning. This is very important research seeing as it could potentially save a life. The first step is to see if you can

wake the person up. Calling their name, pinching or pressing your knuckle on their sternum are key ways to check if the person is unconscious. You then will turn the body onto its side to make a clear passage for air. If they were to vomit you do not want them to choke on their own vomit. Stay with them and monitor their breathing. Next step is to check their temperature and skin color. If the skin is pale and the temperature is cold, this is a sign they are not getting enough oxygen. If the person is breathing irregularly or less than ten breathes in a minute it means they need medical attention. Last but not least, remember that everyone is different. Some people may have all of these signs or only one but it is your call to make the moves. Your decision could determine the future of his or her life.

- **Web Site #3 name: “Alcohol Poisoning among college students turning 21: do they recognize the symptoms and how do they help?”**
- **Web address: <http://www.ncbi.nlm.nih.gov/pubmed/19538920?dopt=Abstract>**
- **Summary of Research:**

The aim of their study was to distinguish between alcohol poisoning symptoms and other alcohol-related behaviors. It also researched the chance of students helping someone showing signs of alcohol poisoning. Male students took a test a week before their twenty first birthdays focusing on drinking behaviors, consequences, and concerns of alcohol poisoning. The results of the research indicated that most students reported having helped someone with alcohol poisoning. In these situations students rely on other peers near them for help. When students do not help it is most likely because they do not think the person needs help. It is not always easy to distinguish when someone is passed their limit. We normally do not know the difference between being drunk or close to dying. If students are also intoxicated themselves they never see the extreme of the situation. Heavier drinkers report a higher likelihood to help a peer showing any sign of alcohol poisoning. We need family friends and prevention professionals to provide citizens with the correct knowledge on alcohol poisoning. These should be focused around heavy drinkers seeing as they are more likely to be caught in a situation of alcohol abuse or alcohol poisoning.

Statistics:

- **Web Site #1 name: Alcohol Screening**
- **Web address: <http://www.cdc.gov/InjuryResponse/alcohol-screening/>**
- **Summary of Statistics:**

The issue in this article discusses excessive drinking and injuries. When people drink excessive amounts of alcohol it increases the chances of injuring themselves and others as well. Excessive drinking is the leading risk factor for injury in the United States. It is also the

third leading cause of preventable death. That accounts to 75,000 deaths annually and one death every 7 minutes. In the U.S. population, 4% are addicted to alcohol and 25% excessively drink yet are not addicted. Although those numbers do sound low it accounts for a very large portion of our population. We could save 75,000 lives a year just by reducing alcohol-related injuries and deaths. Alcohol poisoning is even taking the lives of innocent victims. The problem is only getting worse seeing how alcohol addiction is starting at a younger age. In order to prevent this problem from getting worse we need to target “all people who drink too much.” If we were to only focus on the people who are addicted to alcohol we’d be ignoring the problem of excessive drinkers. We need to tackle the problem entirely. Since people are starting to drink alcohol at younger ages our numbers will only start to increase unless we stop the problem now.

- **Web Site #2 name: Alcohol Poisoning**
- **Web address: <http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3aproject=medlineplus&v%3asources=medlineplus-bundle&query=alcohol%20poisoning&>**
- **Summary of Statistics:**

Drinking alcohol depresses the nerves that control our breathing, heart rate, and gag reflex. Excessive alcohol intake can slow down these in voluntary actions or in some cases completely shut them down. Your body temperature and blood sugar levels can also drop to allow seizures or cardiac arrest. Unlike food, alcohol doesn’t take hours to digest. Alcohol is absorbed directly into the stomach and the brain. If drinking on an empty stomach 20% of the alcohol is absorbed directly into the body in less than a minute. It takes about an hour for your liver to process the alcohol in one drink. This is what leads to binge drinking. Typically people want to feel the effects faster; therefore they have multiple drinks within each hour. Nearly 17.6 million adults in the United States are alcoholics. Not only does this affect their lifestyle but it is going to affect the people around them.

- **Web Site #3 name: Binge drinking among high school students and adults (2009)**
- **Web address: <http://www.cdc.gov/MMWR/pdf/wk/mm59e1005.pdf>**
- **Summary of Statistics:**

Binge drinking relates very closely to alcohol poisoning. This is because in order to have alcohol poisoning you would have needed to consume a large amount of alcohol in a short period of time; which is binge drinking. Binge drinking was responsible for more than half of the 79,000 deaths and two thirds of the 2.3 million years of life lost to excessive drinking each year. Excessive alcohol use is the third leading preventable death in the U.S. Alcohol consumption can be prevented. Binge drinking in adults has gone up over the past few years.

In 1993 we were at 14.2% and in 2009 we increased to 15.2%. It is most common in males ages 18-23 and in household incomes of \$75,000 or more. Comparing binge drinking in adults from 1993 to 2009 showed that 20 states increased and only 2 decreased; 29 states stayed the same, which means we are showing no improvement at all. In order for us to succeed in dropping the rates of excessive drinking and alcohol poisoning we need to educate everyone on safe drinking habits.

Consumer Information:

- **Web Site #1 name: Alcohol Poisoning**
- **Web address: <http://www.mayoclinic.com/print/alcohol-poisoning/DS00861/DSECTION=all&METHOD=print>**
- **Summary of Information:**

What a lot of people don't take into consideration when thinking of alcohol poisoning is that it comes in several forms. For example, isopropyl alcohol, methanol and ethanol are just some of the alcohol forms that can be poisonous to the human body. Isopropyl alcohol is found in rubbing alcohol, lotions and some cleaning products. Methanol is an ingredient in antifreeze, paints and solvents. Lastly, ethanol is found in alcoholic beverages, mouthwash and some medications. Most incidents of alcohol poisoning occur from consuming too many alcoholic drinks in a short period of time yet it can also occur from consuming household products containing alcohol. This is why most household labels advertise to keep away from children seeing as they wouldn't know the damage a household product could do to them. Once alcohol poisoning has set in the proper measures need to be taken. This includes careful monitoring, oxygen therapy and airway protection to prevent breathing or choking problems.

- **Web Site #2 name: Alcoholism and Alcohol Abuse**
- **Web address: http://www.helpguide.org/mental/alcohol_abuse_alcoholism_signs_effects_treatment.htm**
- **Summary of Information:**

Not everyone has one drink of alcohol and can't stop. Yet, we have millions of people who suffer from alcoholism and alcohol abuse which makes that dinner time drink dangerous. Alcoholism and alcohol abuse are very closely related to alcohol poisoning because they both could potentially lead to alcohol poisoning. Drinking problems are due to many different circumstances, such as genetics, how you were raised, social environment, and emotional health. People who have a family history of alcoholics or live with heavy drinkers are most likely to end up on the same path. It is also used as an antidepressant with people suffering

from depression, bipolar disorder, or anxiety. The problem is that people cannot figure out the difference between social drinking and problem drinking. What exactly is moderate drinking? For women, it is no more than one drink per day, and men no more than two drinks a day. How much is too much? For women no more than seven drinks per week or three per occasion and for men fourteen drinks a week or four drinks per occasion. For some, this may not seem like a lot, but in the great scheme of things it could potentially save a life.

- **Web Site #3 name: Binge Drinking**
- **Web address: http://kidshealth.org/teen/drug_alcohol/alcohol/binge_drink.html#**
- **Summary of Information:**

When it comes to drinking too much one of the first things affected is your judgment. When under the influence we tend to make decisions we wouldn't normally think to do. This is because the alcohol has set in and we feel more confident to take certain risks. Driving is not the only thing impaired after drinking. We tend to stumble and lose control of walking under normal conditions. In 2000, roughly one third of pedestrians 16 and older who were killed in traffic accidents were intoxicated. What most people don't realize is how potentially dangerous these risks could get. For instance, having unprotected sex would be an impaired judgment. This could potentially lead to STDs or even pregnancy. Just because we do not all pass out or go into coma due to alcohol poisoning doesn't mean that we don't risk dangerous situations by drinking.

Solutions to the Problems (or Issue):

- **Web Site #1 name: National Institute on Alcohol Abuse and Alcoholism**
- **Web address: <http://www.niaaa.nih.gov/Pages/default.aspx>**
- **Summary of Information:**

Although I couldn't find any organizations based specifically on alcohol poisoning they had many options on alcohol abuse or alcoholism that are helping many Americans today. The NIAAA and other federal agencies will provide more than \$6 million to support research on substance abuse. The NIAAA mission statement is to "Conduct and support research in a wide range of scientific areas including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment." They work closely with national, state and local organizations as well as agencies and programs involved in alcohol-related work. Alcohol use disorders (AUD) is defined as alcohol abuse and alcohol dependence, and arise from drinking too much, too fast and/or too often. The NIAAA is doing research on metabolism, alcohol and gene environmental interactions, epigenetics,

neurobiology and alcohol use disorders. All this money towards research will help us to better understand alcohol abuse and ways we can prevent and treat these diseases.

- **Web Site #2 name: Institute of Alcohol Studies**
- **Web address: http://www.ias.org.uk/aboutus/who_we_are.html**
- **Summary of Information:**

IAS is one of the few organizations that do not depend on the government or the alcohol industry for funds. They can therefore have an independent voice on alcohol policies. Their main focus is to bridge the gap between research on alcohol and the public. Their goal is to make their information accessible to anyone who needs it. For instance, health professionals, students, politicians, youth workers can use this information to benefit their knowledge. They write research papers and factsheets, worked with local associations and finally working day-to-day to answer questions for the media and general public. IAS's main goal is to increase awareness of alcohol-related issues in society. I think this is important because research can only do so much. If we can help society understand the risks of excessive drinking or alcohol in general we could make huge changes to people's everyday lives.

- **Web Site #3 name: Alcoholics Anonymous**
- **Web address: <http://www.aa.org/lang/en/subpage.cfm?page=1>**
- **Summary of Information:**

Alcoholics Anonymous is a way for men and women to share their experiences, strength and hope for each other to help recover from alcoholism. I found this organization very important to alcohol poisoning because anyone who has suffered from alcohol poisoning might need to look for help. The only requirement of AA is the desire to stop drinking. Their main purpose is to stay sober and help alcoholics achieve sobriety. They discuss that society has learned a lot about learning how to identify or arrest alcoholism but have not discovered how to prevent it. This is because no one can figure out why drinkers become alcoholics. People who have suffered from alcohol poisoning or continue to binge drink need to learn how to live a happy lifestyle without alcohol. Once we can achieve this problem, we should see less Americans running to alcohol to solve their problems. AA is a place for people with an alcoholic problem to relate to others who have the same exact problem. The best part about AA is that there are no membership fees or dues. They are self-supporting through contributions. This shows that we do have people who want to help our people live better lives.

Conclusions:

From writing this fact sheet I learned a lot about the risks of alcohol poisoning. I thought it was interesting seeing how close binge drinking and alcoholism relate to alcohol poisoning. In addition to that I also learned the unintentional risks we take when drinking alcohol. That was interesting because you never really think of the risks before drinking, only during the aftermath. Personally, I think alcohol poisoning is scary. Drinking yourself into a coma or until a point where you can't breathe is not a place I ever want to be in. I think the scariest part is that most Americans do not know their limit. Alcohol poisoning comes from consuming too many drinks in a short period of time. If we don't know our limits we could be under life-threatening conditions easily. I recommend that people start to realize their limit and when to stop. Alcohol poisoning is not something anyone should want to experience.

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