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# **Drunk Drivers**

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#### **Review Article**

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### Abstract

World Health Organization say that in worldwide, 3 million deaths every year result from harmful use of alcohol, this represent 5.3 % of all deaths. The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions. Overall 5.1 % of the global burden of disease and injury is attributable to alcohol, as measured in disability-adjusted life years (DALYs). These figures are terrible and, as we can see, alcohol is very harmful for health. Drinking alcohol is associated with a risk of developing health problems such as mental and behavioural disorders. Some people in that condition sit on the wheel and think they can drive. In that condition, they are unable to drive. In that condition, make a traffic accidents. This paper is dedicated to victims of drunk drivers.

Keywords: Alcohol; Traffic; Injuries

### Introduction

Much before the development of science, man discovered the effects of certain liquids that he was tasteful to him [1]. Then he began to produce liquids or drinks that had very nice effects on him. It is not known when a man realized that these pleasant effects were caused by the presence of alcohol in these fluids. Appointment of this activities is related to spirit or soul. If it were to be facetiously on a linguistic basis, then the spirit of the nation could be translated as an alcohol of the nation. Some experts say: If you find out about alcohol today, it would probably become a successful antidote to depression or insomnia.

The study of old laws points to the heavy penalties that were executed in the case of established drunkenness related to criminal offense. Alcoholic beverages, their production, quality, sales, drinking and the behavior of people with certain alcohol concentrations in the blood, ie, they are behaving under the influence of alcohol, related by many laws. In this way, modern societies try to reduce the harm associated with behavior under the influence of alcohol consumed. Relying on the idea that alcohol is detrimental, some societies have tried to completely exclude and prohibit the production and consumption of alcoholic beverages. It is considered that the attempt of prohibition was very unsuccessful and that it contributed to the development of organized crime in the United States. After this experience, modern Western Hemisphere societies are mostly trying to apply delimitative bans and increase control of alcohol, alcohol consumption and behavior with alcohol.

#### **Alcohol in Human Body**

Alcohol is the world's favorite recreational drug and moderate drinking has few untoward effects on a person's health and well-being [2]. Indeed, drinking small amounts of alcohol helps to relax people and relieve their inhibitions. Moreover, scores of studies testify to the efficacy of small doses of alcohol, such as one to two glasses of red wine daily, as an effective prophylactic treatment for cardiovascular diseases such as ischemic

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stroke and heart failure. In contrast, heavy drinking and drunkenness constitute major public health problems for both the individual and society. Binge drinking is the cause of deviant behavior and is closely linked to family violence. Many of those who seek help from hospital casualty and emergency units are under the influence of alcohol. High blood alcohol concentrations (BACs) are a common finding in all out-of-hospital deaths, especially in victims of suicide and drowning. Accordingly, the determination of alcohol in body fluids is the most frequently requested service from forensic science and toxicology laboratories worldwide.

The role of alcohol intoxication in traffic crashes and deaths on the roads is well recognized, which has led to the creation of punishable BAC limits for driving. Measuring a person's bloodor breath-alcohol concentration (BrAC) furnishes compelling evidence for the prosecution case and, if above the legal limit, a guilty verdict is virtually guaranteed.

The use of alcohol (or other drugs) to alter consciousness and produce intoxication is not new [3]. Alcohol is the most widely used and abused drug on earth and has been consumed for its intoxicating effects for thousands of years. One consequence of intoxication of social and forensic interest is impaired driving that often results in fatal or serious bodily injuries. Different prevention approaches to reduce drunk driving include laws defining and prohibiting intoxicated driving and legislation that limits alcohol service (e.g., dram shop or common negligence laws). A violation of the dram shop law occurs when someone is served alcohol while visibly intoxicated or, depending on the statute, the server should have known the person was intoxicated. In instances of comparative negligence, the question may be whether a passenger knew or should have known that the driver was visibly or obviously intoxicated before getting into the car. The lack of visible signs of impairment does not correlate with the inability to perform complex tasks such as driving which creates myriad problems for passengers, law enforcement, and bartenders, for example.

Alcohol affects people differently, depending on their physical size, age, health status, and how much food they have eaten [4]. How quickly alcoholic drinks are consumed also makes a difference. For instance, someone who takes an hour to drink a beer, mixed drink, or glass of wine, will be less affected by the alcohol than someone who drinks it faster. Another factor is sex: Men typically have lower BACs than women after drinking the same amount of alcohol even if they are similar in size and weight. According to Brown University's Health Services division, one reason for this is that women have less water in their bodies than do men, whichmeans a man's body has the ability to dilute the alcohol more than a woman's body. Women also have less dehydrogenase, an enzyme that enables the liver to metabolize alcohol, so women's bodies break it down more slowly than men's.

The effects of alcohol are amplified as more of it is consumed. With a BAC of .04 to .05 percent, drinkers tend to feel warm, mellow, and relaxed. As they continue to drink, their BAC rises and other symptoms become apparent, such as a decrease in fine-muscle coordination and impaired hearing and vision. By the time BAC has reached .12 to .15 percent, major impairment of physical and mental faculties is evidenced by confusion, slurred speech, blurred vision, and loss of balance. When BAC climbs higher than that, it can lead to unconsciousness and possibly fatal alcohol poisoning.

#### **Road Crashes**

Road traffic injuries are a major public health problem and a leading cause of death and injury around the world [5]. Each year nearly 1.2 million people die and millions more are injured or disabled as a result of road crashes, mostly in low-income and middle-income countries. As well as creating enormous social costs for individuals, families and communities, road traffic injuries place a heavy burden on health services and economies. The cost to countries, possibly already struggling with other development concerns, may well be 1%–2% of their gross national product. As motorization increases, road traffic crashes are a fast-growing problem, particularly in developing countries. If present trends continue unchecked, road traffic injuries will increase dramatically in most parts of the world over the next two decades, with the greatest impact falling on the most vulnerable citizens.

Appropriate and targeted action is urgently needed. The World report on road traffic injury prevention, launched jointly in 2004 by the World Health Organization (WHO) and the World Bank, identified improvements in road safety management that have dramatically decreased road traffic deaths and injuries in industrialized countries that have been active in road safety. The report showed that the use of seatbelts, helmets and child restraints has saved thousands of lives. The introduction of speed limits, the creation of safer infrastructure, the enforcement of blood alcohol concentration limits and improvements in vehicle safety, are all interventions that have been tested and repeatedly shown to be effective.

#### **Traffic Fatalities**

Driving while impaired (DWI) by alcohol and/or drugs is a persistent and growing global public health problem [6]. While drivers convicted for a first offense are at greater risk for crash involvement and contributing to injury, death, and property damage compared to DWI-free drivers, reoffenders (i.e., recidivists) are significantly more dangerous. Hence, many jurisdictions have committed considerable resources to deploy both universal and selective prevention programs to reduce the probability that drivers convicted of a first DWI offense will transition to recidivist status.

Human factors, including speeding, DWI, unbelted and distracted driving, together account for up to 90% of all fatal RTCs (road traffic crash). DWI is a major contributing factor to RTC morbidity, implicated in almost 40% of all RTC-related fatalities in the developed world and more than doubling the risk of a driver being involved in a fatal crash. Blood alcohol concentration (BAC) levels of greater than 0.01 g/dL (i.e., 0.01%) are associated with a significant increase in overall injury risk compared to 0.00% BAC. Further, the impact of positive BAC on RTC risk surges monotonically, increasing RTC risk fourfold at 0.05% BAC and 10-fold at 0.07% BAC. In certain vulnerable groups, such as young and novice drivers and motorcyclists, crash risk is significantly higher at all BAC levels compared with that of the general driver population. Currently, many jurisdictions have per se DWI laws that target drivers who operate a vehicle with a BAC ranging from 0.05% to 0.08%. In novice or young drivers, BAC below these levels (e.g., 0.0%, 0.02%) is in force in some jurisdictions during a probationary licensure period or until a certain age.

Alcohol was proportionally most important as a risk factor associated with injury mortality among men in the age group of 15-44 years, for whom about two-thirds of intentional injuries and more than one-fifth of unintentional injuries were attributable to alcohol [7]. Among women, the proportion of unintentional injuries attributable to alcohol was largest between the ages of 30-44 and 45-59 (10.9%), while the proportion of intentional injuries attributable to alcohol was highest among those 30-44 (10.1%). Road traffic accidents were the leading cause of death for alcohol-attributable unintentional injuries for both genders among those 0 to 44 years. In terms of alcohol-attributable intentional injuries, violence was a leading cause of death in all age categories for both men and women. The only exception was in the age group of 60-69 years for men where the leading cause of death attributable to alcohol was selfinflicted injuries.

#### Escape from the Scene of an Accident

Escape from the Scene of an Accident requires a number of different task groups to be undertaken [8]. Action in such cases must be precedently framed in a general plan that in each particular case is adapted to its specific circumstances with the aim of optimizing the previously developed tactics. If a mortal event occurred in the accident, it is necessary to test the exterior examination of the body and clothing at the scene of the accident. Especially important is the inclusion of all the available power of search services and their synchronized action. In all of this, the central role is realized by a police officer or an expert team responsible for coordinating the work of all subjects involved in the realization of the search activity, as well as other accompanying actions.

#### **Death Certificate**

Information needed for proper completion of the death certificates includes the date and time of the accident, the place of the accident (highway/road, farm field, residence, etc.), and the circumstances surrounding the death, the time of death pronouncement, or the time law enforcement arrived at the scene on cases where death was obvious [9]. Pertinent circumstances that need to be communicated directly at the time of death include the position within the vehicle (driver, passenger, ejected occupant, pedestrian), seatbelt use, presence or absence of skid marks, estimated speed, weather conditions at the time of the accident, and evidence of possible impairment (liquor bottles or drug paraphernalia). Some cases may even require certain product model numbers to relate to the Product Safety Commission (helmets, vehicle or machinery models, safety equipment in use). In the case of farm or train accidents, information about how the decedent was behaving before the accident and details of how he or she was found are relevant to certifying the cause and manner of death. All of this information is needed by vital statistics and eventually forms part of the national statistics for accident prevention.

#### **Criminal Investigation**

High quality crime scene investigation is a simple, methodical process [10]. It is not rigid; it follows a set of principles and procedures that are reasonable and ensure that all physical evidence is discovered and investigated with the result that justice is served. The basic crime scene procedures are physical evidence recognition, documentation, proper collection, packaging, preservation, and, finally, scene reconstruction. Every crime scene is unique and, with experience, a crime scene investigator will be able to use this logical and systematic

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approach to investigate even the most challenging crime scenes to a successful conclusion.

The analysis of the collision environment and vehicle damage includes the point of first contact in the incident, the principal direction of the force of impact, and the consequences of collision to vehicles, occupants, and pedestrians [11]. Examination of the roadway for collision tire marks, scrapes and gouges, scuff marks, and collision debris is important to determine the first contact point.

The position of the point of first contact can serve as an indicator as to which vehicle was at fault in a crash. When the point of contact is on one side of the road in a two-car, head-on collision, it may suggest one of the vehicles crossed onto the wrong side of the road before impact. The absence of skidmarks from the target vehicle may indicate that the bullet vehicle crossed quickly into the wrong lane. Frontal impact to the target vehicle may suggest the driver had no time to attempt any evasive action, whereas an oblique offset frontal impact to the target vehicle may indicate attempted evasive action. The direction of the impact forces and position of the collision site must be correlated with all of the available scene information.

A multitude of factors contribute to or directly cause motor vehicle crashes, including vehicle mechanics, roadway characteristics, weather, traffic density, and time of day to name a few [3]. One common and preventable factor for motor vehicle crashes is intoxication. The use of alcohol prior to or during the operation of a motor vehicle has long been a recognized significant cause of traffic crashes and threat to public safety. However, the mere fact that someone is intoxicated (pharmacologically) does not establish causation. It is incumbent upon the at-scene crash investigator to ensure the timely, meticulous, and thorough collection of all recognized evidence to determine the cause(s) of a crash and in some instances eliminate potential contributing or causative factors.

Whatever the scene dynamic, even the smallest of pieces of evidence can play a major part in solving a case. An at-scene crash investigator starts this process by using personal observation, obtaining witness statements and memorializing the event with photographs, video recordings, physical measurements of the evidence locations, and collection protocols, including alcohol test evidence. When intoxication is a potential factor, all other factors must still be considered. The use of standardized and accepted techniques of evidence collection, preservation, and transportation of evidence to a secure evidence storage area will create a solid foundation for crash reconstruction experts. Physical and other evidence obtained by investigation is critical to the reconstruction of the crash. Crashes involving alcohol and serious bodily injury or death may include elements of reckless disregard, depending on the state and statute and should be investigated as a crime.

A verification test of blood alcohol is usually determined by doing a vitreous (ocular) fluid level [9]. Since it is protected from the body cavities and contamination factors, it is a useful adjunct to a blood alcohol test. The value determined in the vitreous runs slightly higher ( $1.2 \times$  higher) than blood and also lags behind a blood value. So a value of 1 mg/dl in blood is equal to 1.2 mg/dl in vitreous, and the person is said to be at a steady state where ingested quantity is equal to excretion. As the person quits drinking, the blood value will drop and the vitreous value will remain slightly higher, lagging behind in its excretion.

#### **Criminal Act**

The presence of alcohol within the blood of a driver causes an increase in the risk of collision, injury, and death [11]. The different blood alcohol limits for drivers imposed by different jurisdictions are purely arbitrary and are influenced by factors other than road safety. The risk of a collision is exacerbated by other issues such as a driver's inexperience. Alcohol-related motor vehicle incidents tend to occur at greater speeds, involve more vehicles, and are associated with an increased incidence of rear end, sideswipe, and rollover incidents.

It would be impossible to list all the objects that could conceivably be of importance to a crime; every crime scene obviously has to be treated on an individual basis, having its own peculiar history, circumstances, and problems [12]. It is practical, however, to list items whose scientific examination is likely to yield significant results in ascertaining the nature and circumstances of a crime. The investigator who is thoroughly familiar with the recognition, collection, and analysis of these items, as well as with laboratory procedures and capabilities, can make logical decisions when the uncommon and unexpected are encountered at the crime scene. Just as important, a qualified evidence collector cannot rely on collection procedures memorized from a pamphlet but must be able to make innovative, on-the-spot decisions at the crime scene.

#### **Conclusion**

Alcoholism is a chronic addiction to alcoholic beverages. It manifests itself through a strong desire for

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drinks, loss of control over drinks, symptoms of physical withdrawal and increased tolerance to alcohol. Alcohol dependence is a difficult psychological disorder because of the pathological process that changes the way the brain works.

Driving under the influence of alcohol is socially unacceptable. The driver under the influence of alcohol quickly ceases to be aware of his abilities, relativize the danger and overcomes his driving abilities. It becomes careless and minded to ignore traffic regulations. When under the influence of alcohol is driving a vehicle, the driver presents a great danger to all traffic participants, not just for themselves. Drivers under the influence of alcohol often become the cause of traffic accidents that, unfortunately, end up with a deadly outcome.

When the traffic accident is hidden by a drunk driver, it should be punished with utmost punishment. This will send a strong message to other drivers that under the influence of alcohol should not sit on the steering wheel of a motor vehicle. Stroge penalties are the only effective way to suppression such criminal offenses.

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