INTOXILYZER™ 5000

GEORGIA OPERATOR'S

TRAINING MANUAL

GEORGIA BUREAU OF INVESTIGATION
DIVISION OF FORENSIC SCIENCES

2013 Revision

THE GEORGIA BUREAU OF INVESTIGATION
DIVISION OF FORENSIC SCIENCES

in cooperation with

THE GEORGIA PUBLIC SAFETY TRAINING CENTER
And
THE GEORGIA STATE PATROL
Present

A Two Day Lecture and Laboratory Course

on

The Theory and Operation of the Intoxilyzer™ 5000

FIRST DAY

0800 - 0850	Registration and Introduction to the Intoxilyzer™ 5000
0900 - 0950	Ethyl and other Low Molecular Weight Alcohols
1015 - 1130	Introductory Anatomy and the Disposition of Alcohol in the Human body
1130 - 1230	Lunch
1230 - 1345	Pharmacology of Alcohol and Psychomotor Impairment
1400 - 1500	Respiratory Anatomy and General Principles of Breath Alcohol Testing
1515 - 1545	Intoxilyzer™ 5000 Question Format and Testing Sequence
1545 - 1615	Intoxilyzer™ 5000 Display Messages
1630 - 1650	Limitations of Breath Alcohol Testing
1700	Class Dismissed

SECOND DAY

0800 - 0850	Intoxilyzer™ 5000 Operation
0900 - 1050	Implied Consent and DUI Law
1100 - 1150	Course Material Review
1200 - 1300	Lunch
1300 - 1410	Exam
1430 - 1500	Case Law Review
1500 - 1600	Review of Exam and Awarding of Permits
1600	Class Dismissed

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INTRODUCTION

Alcohol has been shown to adversely affect a person's ability to safely operate a motor vehicle or watercraft. The impaired driver presents a hazard to public safety on Georgia's highways and waterways. To protect the motoring and boating public, O.C.G.A. Titles 40 and 52 declares this conduct to be unlawful and establishes penalties for violations.

As part of the establishment of the rules of the road, the legislature has established that it is implied that all individuals driving on roads throughout the state of Georgia have given consent to chemical testing in order to establish whether or not they are driving under the influence. Under O.C.G.A. 40-6-392 the legislature has established the methods by which these chemical tests must be performed. This statute requires that the Georgia Bureau of Investigation:

- Approve satisfactory techniques and methods to ascertain the qualifications and competence of individuals to conduct analyses
- Issue permits to conduct analyses
- Issue requirements for properly operating and maintaining testing instruments.
- Issue certificates that instruments have met the approval requirements of DOFS.

In conjunction with this authority and obligation, the GBI-DOFS adopted the Rules and Regulations governing Implied Consent - GBI Rules 92-3 (Appendix A). In accordance with this authority, the Director of DOFS has approved breath alcohol testing as an acceptable procedure for alcohol analysis when performed by a certified operator on an approved breath testing instrument.

Pursuant to GBI Rule 92-3:

> (12)(a) The methods approved by the Division of Forensic Sciences for conducting an evidential breath alcohol analysis shall consist of the following:
>
> > (1) the analysis shall be conducted on an approved instrument as defined in 92-3-.06 (5).
> >
> > (2) the analysis shall be performed by an individual holding a valid permit, in accordance with Rule 92-3-.02 (2); and
> >
> > (3) the testing instrument shall have been checked periodically for calibration and operation, in accordance with Rule 92-3-.06 (8)(a);

In 2012 the GBI made modifications to GBI Rules 92-3 in order to adopt the use of the Intoxilyzer 9000 as an approved testing device for evidential breath testing.

Pursuant to GBI Rule 92-3-.06:

> (5) Breath tests other than the original alcohol-screening test shall be conducted on a breath alcohol analyzer approved by the Director of the Division of Forensic Sciences or his or her designee. Any other type of breath alcohol analyzer not specifically listed in this paragraph must be approved by the Director of the Division of Forensic Sciences or designee prior to its use in the State.
>
> > (a) **The Intoxilyzer Model 5000 manufactured by CMI, Inc. is an approved instrument for breath alcohol tests conducted on or before December 31, 2015;**
> >
> > (b) **The Intoxilyzer Model 9000 manufactured by CMI, Inc. is an approved instrument for breath alcohol tests conducted on or after January 1, 2013;**

Thus the state of Georgia is now in the process of transitioning from the use of the Georgia Model Intoxilyzer 5000 to the Georgia Model Intoxilyzer 9000 as the sole evidential breath testing instrument used throughout the state of Georgia.

Why is the state of Georgia Transitioning to the Intoxilyzer 9000?

The Intoxilyzer 5000 was originally put into place in Georgia in 1995 and over the last 17 years has accurately and reliably measured breath alcohol levels. Even though the Intoxilyzer 5000 continues to be one of the best and most widely used evidential breath testing instruments in the United States, the Georgia Bureau of Investigation has decided to implement a three year statewide transition to the Georgia Model Intoxilyzer 9000.

The primary reason for transitioning to a new instrument is due to concerns over the long term sustainability of the current fleet of Georgia Model Intoxilyzer 5000s. Due to the relative age of the Intoxilyzer 5000, obtaining service and replacement instrument components for the Intoxilyzer 5000 has become problematic and will likely only get worse in the future. As an example, customers were informed in 2007 that the vendor of the Intoxilyzer 5000's internal slip printer would no longer be supplying the original part to instrument manufacturer, CMI. This ultimately required that all Intoxilyzer 5000s needing internal printer replacement be retrofitted to utilize an external slip printer.

A secondary concern regarding Georgia's fleet of Intoxilyzer 5000s, is the lack of adaptability to future needs or requirements. The Division of Forensic Sciences was notified by the manufacturer several years ago that changes in recent years to the Georgia Model 5000's software to accommodate changes to the definition of daylight savings time had reached the limit of the instrument's memory capacity. This limitation in the software memory capacity of the Georgia Model Intoxilyzer 5000 makes any future changes to the instrument's software virtually impossible. The Georgia Model 5000's lack of adaptability presents a significant risk to the uninterrupted delivery of breath alcohol testing services should any future changes to the breath testing process be required. In light of the National Academy of Science's 2009 recommendations for national standards governing forensic testing, it is unclear what quality assurance standards for the breath testing community will be forthcoming in the near future and whether the current fleet of Georgia Model Intoxilyzer 5000s will be able to be adapted to meet these demands. Should the state of Georgia be required to switch from internal standard testing to external control testing with each subject test as recommended in a 2008 policy change from the National Safety Council, significant modifications to existing instrumentation would be required.

In light of these concerns, in 2011 the GBI-DOFS decided to embark on a comprehensive evaluation to approve the successor to the Georgia Model Intoxilyzer 5000. This decision was not made out of any concerns over the adequacy of Georgia's current breath testing methods or the reliability of the Georgia Model Intoxilyzer 5000, but as a proactive measure to ensure that Georgia's breath testing program would be able to address any future challenges and that instruments used in the state of Georgia would continue to be uniformly supported with the best parts and service.

After a comprehensive evaluation of the best multiple filter infrared breath testing devices currently used or for sale in the United States, the Intoxilyzer 9000 was selected as the successor to the Georgia Model Intoxilyzer 5000. The selection process consisted of an objective evaluation of almost one hundred administrative criteria and laboratory performance measures. The Intoxilyzer 9000 obtained the highest composite score on these tests and was subsequently recommended as the successor to the Georgia Model Intoxilyzer 5000. This recommendation was ultimately adopted by the Board of Public Safety in a change to GBI Rules 92-3 on November 8, 2012.

*The complete evaluation report of instruments to replace the Intoxilyzer 5000 can be found at dofs.gbi.ga.gov/downloads

Ethyl and other Low Molecular Weight Alcohols

There are many alcohols known to chemists. Of these thousands, only a few would be expected to be ingested in quantities large enough to have a significant impact on a DUI testing situation.

Methyl Alcohol (methanol)

This is the simplest of all of the alcohols. Its chemical formula is **CH_3OH**. The common names for methyl alcohol are carbinol, industrial or **wood alcohol**. It is widely used as a degreaser, industrial solvent and is found in Sterno™ (or canned heat). Due to its extreme toxicity it is very unlikely to be consumed by a DUI suspect. If methyl alcohol consumption can be confirmed, *immediate* medical attention is required. Methanol concentrations as low as 0.05 g/dL of blood or 0.03 g/210L of breath are associated with severe and potentially life threatening toxicity. The incidence of methanol in DUI related cases is very rare, accounting for less than 0.004% of all reported blood alcohol test results between 2000 and 2005.

Isopropyl Alcohol (2-propanol or isopropanol)

This alcohol has the chemical formula **$CH_3CHOHCH_3$**. Its common names are medicinal or **rubbing alcohol**. It is widely used as a disinfectant and antiseptic. It can be found in many household cleaning compounds such as Lysol™ and other cleaners. It may also be purchased in pint containers in virtually any grocery or drug store. Like methyl alcohol, it is quite toxic to humans and is not intended for human consumption. It is very unlikely that a DUI suspect will have consumed isopropyl alcohol. If isopropyl alcohol consumption can be verified, prompt medical attention should be obtained. If isopropyl alcohol is consumed, it is converted by enzymes in the body to acetone. Thus in the evaluation of chemical blood test results for isopropyl alcohol, the presence of acetone is used to distinguish true isopropyl alcohol consumption from accidental contamination of the blood sample during venipuncture. The incidence of isopropyl alcohol in DUI related cases is also very rare, accounting for less than 0.01% of all reported blood alcohol test results between 2000 and 2005.

Acetone

Acetone is not considered an alcohol, but belongs to a class of compounds called ketones. Acetone is used primarily as a solvent and can be found in a variety of products such as nail polish remover, aerosol paints, epoxys, and adhesives. The incidence of acetone in humans can arise from either the consumption or inhalation of acetone containing products. It can also be produced in the human body from fatty acids when blood insulin levels drop dangerously low during starvation or diabetic conditions. In either case the presence of detectable levels of acetone in the human body is likely an indication of a serious medical condition. Acetone was found in less than 0.05% of all DUI cases analyzed by DOFS between 2000 and 2005.

Acetaldehyde

Acetaldehyde is also not an alcohol, but a type of compound called an aldehyde. Significant quantities of acetaldehyde are rarely seen in commercial products, but acetaldehyde is a naturally occurring byproduct of ethanol metabolism in humans. Its toxicity is estimated to be somewhere between 10 to 30 times that of ethyl alcohol. Acetaldehyde is rapidly metabolized in the body to acetate and thus will not be present in the blood or breath at levels detectable by normal forensic testing methods unless normal acetaldehyde metabolism is blocked by disease or medications such as Antabuse. Acetaldehyde levels of 0.0003 g/dL of blood or approximately 0.003 g/210L of breath are associated with a flushing reaction that can progress to severe headaches and vomiting. Acetaldehyde concentrations of 0.002 g/dL of blood or approximately 0.02 g/210L of breath have been associated with severe life threatening toxicity and loss of consciousness. While some people of Asian descent may exhibit breath acetaldehyde levels as high as 0.005 g/210L after alcohol consumption due to a genetic enzyme abnormality, research from the National Safety Council's Committee on Alcohol and Drugs indicates that measured breath acetaldehyde concentrations do not exceed 0.01 g/ 210L of breath in any normal population.

Ethyl Alcohol (ethanol)

This is the next simplest of the alcohols. It is highly water soluble, relatively odorless, and has a chemical formula of $\mathbf{CH_3CH_2OH}$. The common names for ethanol are **drinking or grain** alcohol. This is the alcohol that is found in beers, wines, and liquors as well as in mouthwashes, cough syrups, and many other over the counter medications. The strength of an alcoholic beverage is often measured using the **proof** system. One half of the proof value is the percentage of alcohol. For example: a 100 proof liquor is 50 % ethyl alcohol (100 ÷ 2 = 50). The highest proof beverage likely to be encountered in a DUI situation is 180 proof or 90 % ethyl alcohol and is known by trade names such as Everclear™ or Golden Grain™. 200 proof or 100 % ethyl alcohol exists but is very expensive and will not normally be seen outside of a laboratory. As a reference, beers typically contain 3 - 6 % alcohol, wines 8 - 14 % alcohol, and liquors 20 - 90 % alcohol. While different types of alcoholic beverages contain different amounts of alcohol, most standard serving sizes are adjusted to deliver a standard amount of alcohol. The **standard drink** typically contains about **0.6 fluid ounces** of ethyl alcohol which is roughly equivalent to the amount of alcohol in one regular 12 floz beer, one 5 floz glass of wine, or 1.5 floz of 80 proof liquor. In addition to ethyl alcohol, most alcoholic beverages contain other compounds called congeners which are largely responsible for the beverage's distinctive odor. These congeners are also thought to be responsible for many of the "hangover" effects associated with acute alcohol consumption. Sometimes products other than alcoholic beverages such as over the counter medications or mouthwashes contain measurable amounts of ethanol for its antiseptic, solvent, or medicinal properties. While it is extremely unlikely that a person will attain a measurable blood or breath alcohol concentration when using these non-beverage products as the manufacturer recommends, abuse of these products can lead to alcohol related intoxication.

	Ethanol Concentration		
Beverage Type	**average**	**typical range**	**Proof**
Ales	5.5%	3.9 - 12.7%	7 - 25
Lagers	5.4%	4.0 – 15.7%	8 – 31
Regular Beers (top 10)	4.9%	4.6 – 5.0%	9 – 10
Light Beers (top 10)	4.3%	4.2 – 4.5 %	8 – 9
Wine		7 – 14%	14 – 28
Fortified Wine		14 – 24%	28 – 48
Sake		14 – 16%	28 – 32
Brandies		40 – 43%	80 – 86
Whiskies		40 – 75%	80 – 150
Vodkas		40 – 50%	80 – 100
Gins		40 – 48.5%	80 – 97
Rum		40 – 95%	80 – 190
Tequila		40 – 50.5%	80 – 101
OTC medications		0 – 25%	0 – 50
Vitamin Tonics		0 – 18%	0 – 36
Mouthwashes		0 – 25%	0 - 50

Study Problem: Compare the amount of alcohol in the following drinks: 12 ounce beer containing 5% alcohol; 1 ounce shot of 100 proof vodka; 5 ounce glass of wine containing 12% alcohol; mixed drink containing 1.5 ounces of 80 proof rum. (Ounces are fluid ounces.)

Introductory Anatomy and the Disposition of Alcohol in the Human body

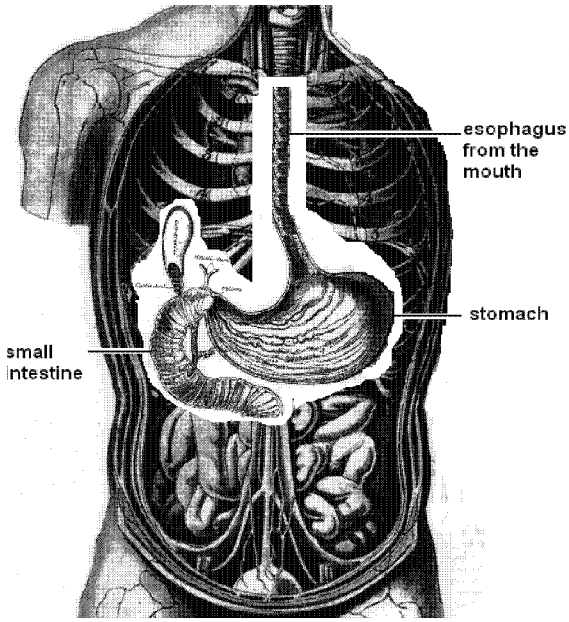
When discussing the disposition of alcohol in the human body we must be aware that the alcohol concentration in an individual is dynamic or constantly changing. At any given time the alcohol concentration in a drinking individual is affected by four primary biological processes: **administration, absorption, distribution, and elimination**. Thus in order to have a fundamental understanding of the disposition of alcohol in the human body, we must have an understanding of how each of these processes affects alcohol level.

ADMINISTRATION/CONSUMPTION

As we saw previously there are numerous sources of alcohol that are available for human consumption. It is clear that amount, type, and frequency of alcoholic beverage consumption can effect blood or breath alcohol concentration. In addition, the route of administration may effect the fraction or the speed of alcohol delivery to the body. While oral consumption is by far the most common route of ethyl alcohol administration, alcohol can be administered by inhalation, injection, or rectal administration.

ABSORPTION

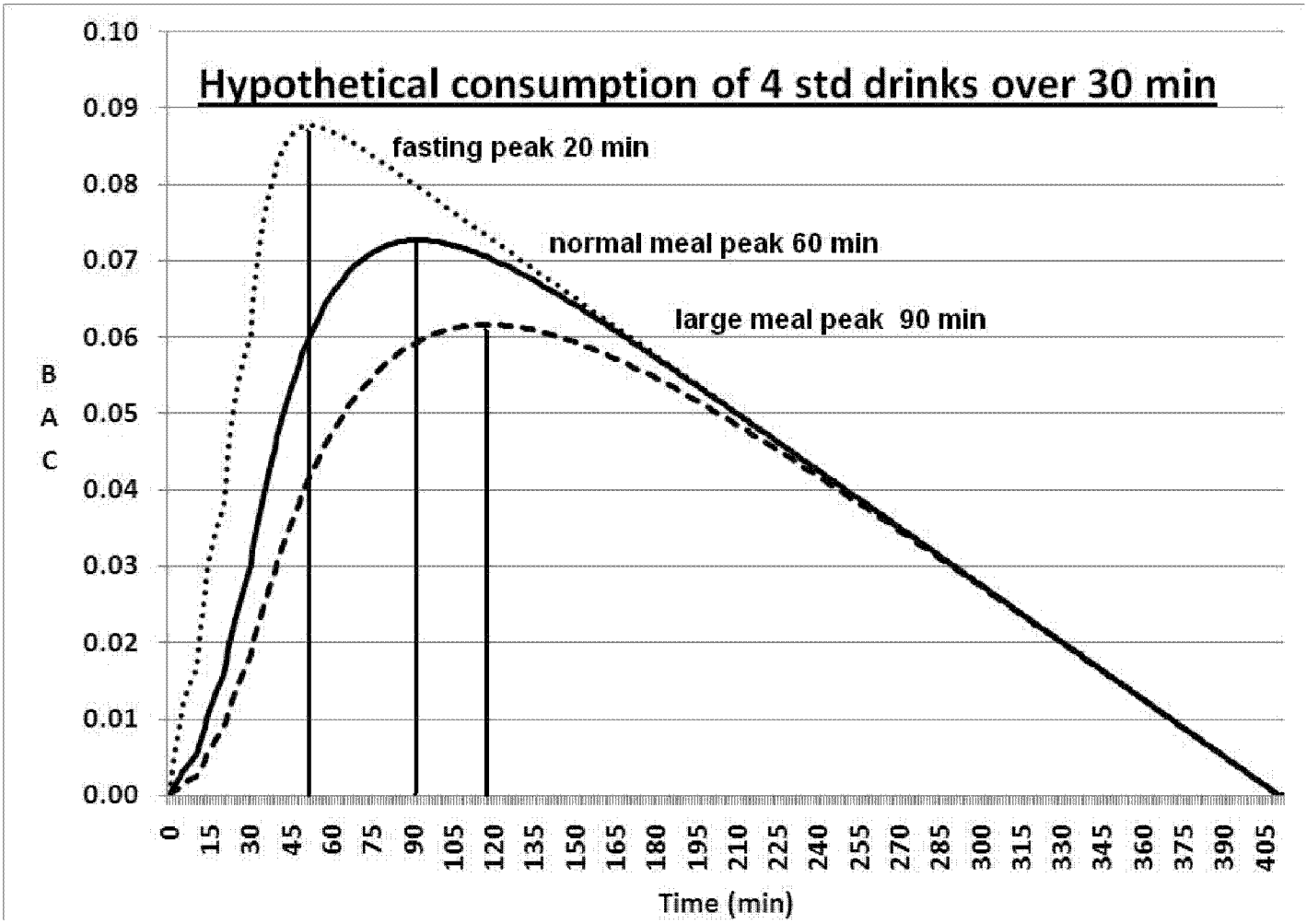
Alcohol, like most drugs, has some interaction with most parts of the body either directly or indirectly. In fact, before alcohol can affect psychomotor or cognitive function it has to be consumed from some alcohol source and be absorbed into the bloodstream. This process is termed **absorption**. The movement of alcohol into the bloodstream makes up the **absorption** phase of alcohol consumption.



When alcohol is consumed orally, it passes from the mouth through the esophagus to the stomach. While in the stomach only small amounts of alcohol are absorbed into the bloodstream. Once digestion in the stomach is complete, the alcohol passes into the small intestine where it is absorbed into the bloodstream through the numerous capillaries in the intestinal mesentery. Unlike food, alcohol is not physically changed during the digestive process and only a small amount undergoes chemical change while in the stomach.

Image adapted from Gray's Anatomy

The time that it takes for alcohol to be completely absorbed into the bloodstream and for a peak alcohol concentration to be reached will vary depending on factors, such as, type and amount of food consumed with the alcohol, the quantity and strength of alcohol consumed and the time interval over which consumption occurs. In addition, some physiological factors such as gastric surgery, disease, and drug use can affect the speed of absorption. The factor that generally has the largest effect on the rate of alcohol absorption is the amount and type of food in the stomach. On average a person consuming alcohol on an empty stomach will reach a peak alcohol concentration within approximately 30 minutes after the end of drinking; however with a moderate amount of food present in the stomach the peak may be may not be reached until one hour after the conclusion of drinking, and with a large amount of food it may take as long as two hours to reach peak alcohol concentration. In rare instances times to reach peak alcohol concentration have been reported in excess of two hours after the conclusion of drinking; however such cases are uncommon and are likely the result of disease or physiological abnormality.



The peak alcohol concentration that a person may reach will primarily be dependent on the **quantity of alcohol consumed** and the **person's weight.** This is illustrated in Table 1 (p. 37) which relates the amount of alcohol in a person's body and a person's weight to their approximate alcohol concentration. It must also be noted that the value of the peak alcohol concentration, the time it take to reach it, and the duration of the peak alcohol concentration are all affected by the rate of absorption, elimination, and the extent of alcohol distribution.

Examples of the use of Table 1: (Page # 37)

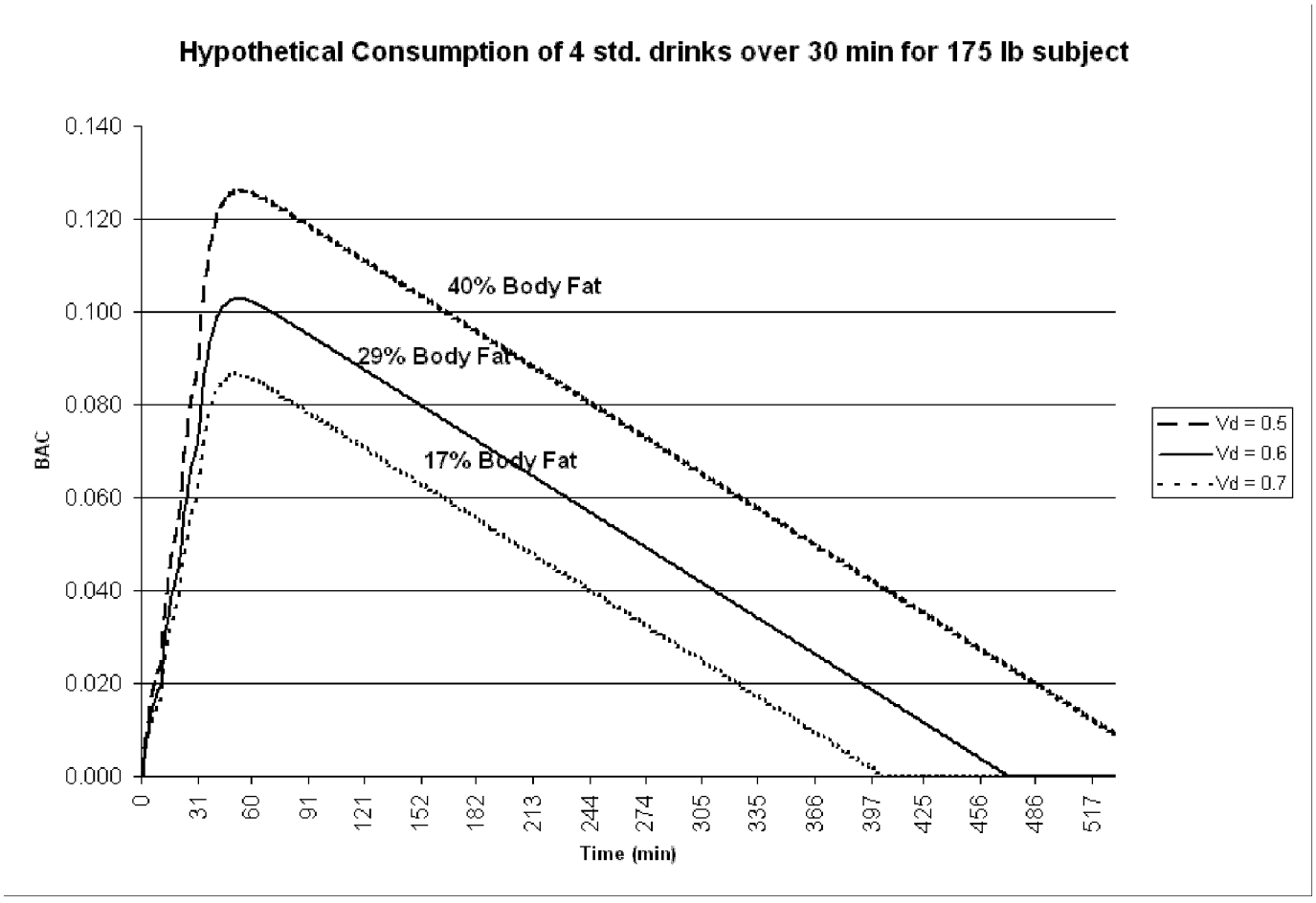
1. A male weighing 200 lb. has an alcohol concentration of 0.13 grams. By using Table 1 we would estimate that this subject has the amount of alcohol equivalent to 3.6 ounces of 200 proof liquor or 6 – 12 ounce beers in their system at the time of the test. This would represent a minimum quantity this person would have to consume to reach this level.

2. A female weighting 120 lb. claims to have consumed 2 beers in about 30 minutes. By using Table 1 we would estimate that this person's maximum alcohol concentration will be 0.086 grams. To actually reach this level requires rapid and complete absorption of the alcohol. If this requirement is not met, the actual reading will be lower than predicted.

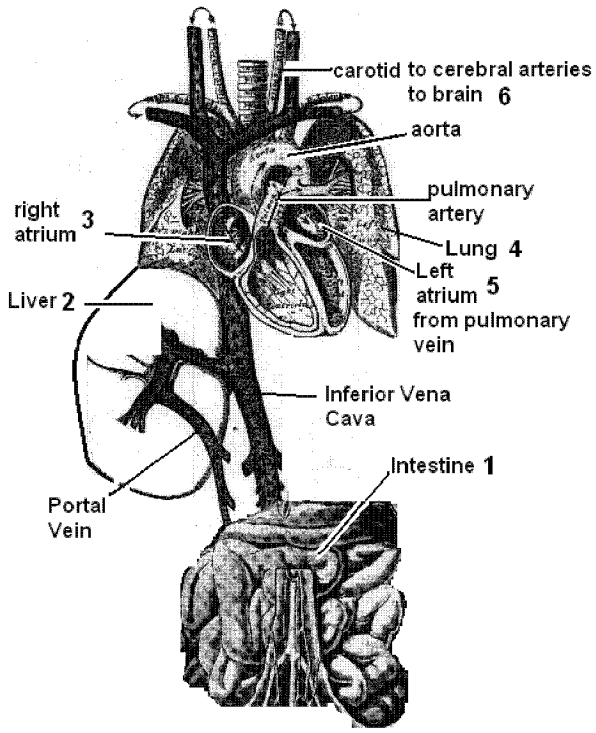
DISTRIBUTION

We have seen that a person's BAC is directly related to the **amount of alcohol they consume and their weight**. This occurs because in reality only a small fraction of the alcohol consumed actually remains in the blood after absorption into the bloodstream. The majority of alcohol in the body distributes out of the blood into the water containing tissues and thus a person's body composition and body mass have a significant effect on peak alcohol concentration. Alcohol has been shown to evenly distribute throughout the total volume of water in a person's body. This means that increasing the amount of water in a person's body tissues, will cause more alcohol to move out of the blood and into the tissues subsequently lowering the blood alcohol concentration. This being said very few things can cause rapid significant changes in the total amount of water in the body without endangering a person's health. An average healthy male is about 60% water by weight; however, this may vary slightly in proportion to his body fat percentage as fat is almost completely devoid of water. This means that two people of the same weight who consume the same amount of alcohol may not reach the exact same BAC if the volume of water into which they distribute that alcohol (or **volume of distribution)** differs. Ultimately the factor that has the largest effect on the distribution of alcohol for a person of a given weight is **body fat percentage** because it is highly correlated to the percentage of the body mass that is composed of water.

The average body fat percentage for males is about 14-18%, and the average body fat percentage for females is about 23-29%. Thus we would expect women on average to exhibit lower volumes of distribution than men. An example of an average male would be a man about 5'10" and 165 lbs and an example of an average female would be a woman about 5'4" and 130 lbs. The correlation between body fat percentage, volume of distribution (Vd), and peak BAC can be seen in the illustration below.



Once absorbed into the bloodstream, alcohol is then transported throughout the body by the circulatory system where it is distributed throughout the body tissues and fluids in proportion to their water content. Throughout the distribution process alcohol interacts with several key organ systems which play a vital role in its ultimate fate and effects on the body.



1. **Intestines** Alcohol is absorbed into the bloodstream from the intestines
2. **Liver** Alcohol is then circulated to the liver where it undergoes metabolism
3. **Heart** Alcohol is then circulated to the heart
4. **Lungs** Alcohol is then pumped to the lungs where it interacts with the breath
5. **Heart** Alcohol is then circulated back to the heart where it is pumped out to the rest of the body and ultimately distributes into the tissues
6. **Brain** Alcohol from the heart is pumped to the brain through the carotid artery where it exerts its effects on nerve impulses.

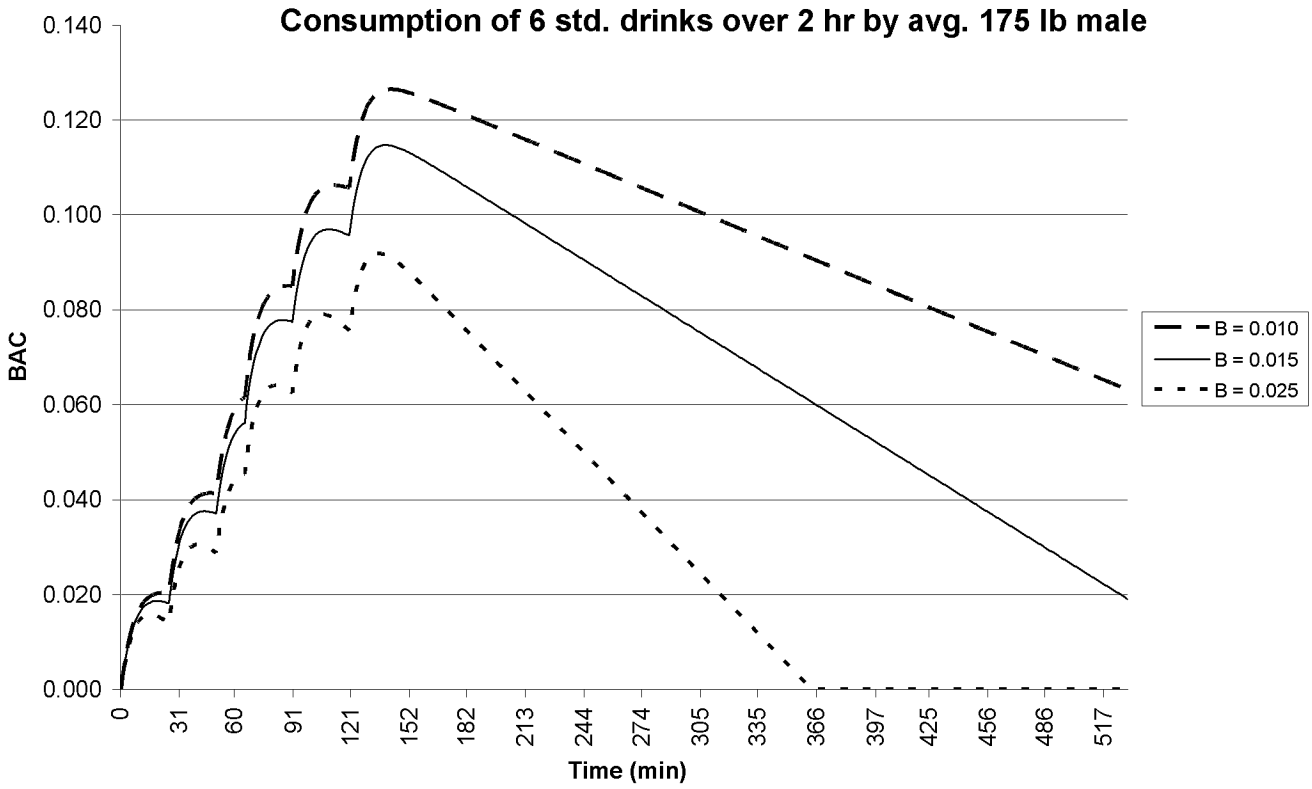
Circulatory Pathway of Alcohol in the Human Body
Image adapted from Gray's Anatomy

ELIMINATION

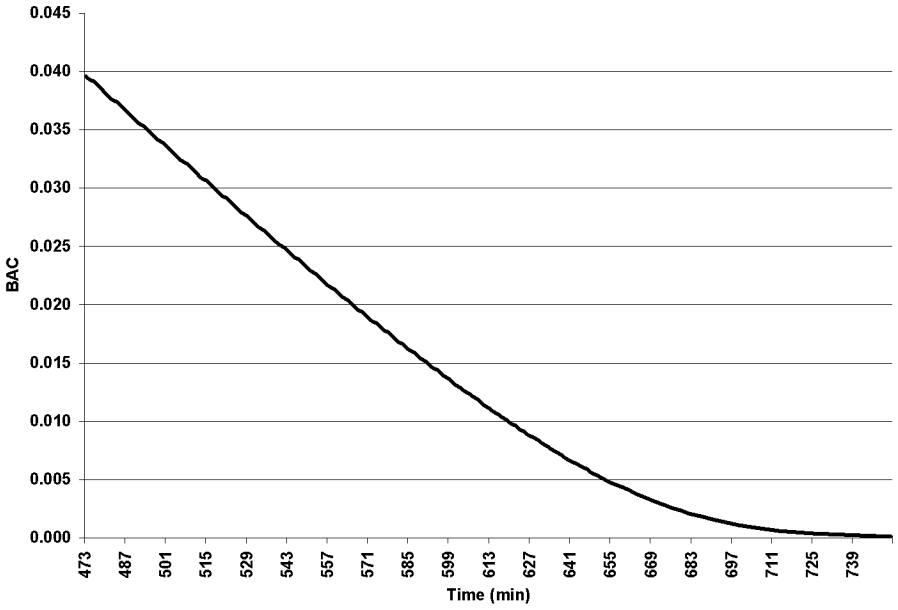
Once alcohol is absorbed into the blood stream in the intestinal system, the first major organ it is transported to is the liver. The liver serves not only to help metabolize food for energy but also serves to metabolize alcohol. **Metabolism** is the process by which some compounds in the body are chemically changed so that they are less toxic to the body, more useful to the body, or more easily eliminated. The majority of alcohol that is consumed is eliminated by the **liver** through metabolism by the enzyme alcohol dehydrogenase (ADH). The ADH enzyme converts ethanol to acetaldehyde which is ultimately further converted by a series of other enzymes to carbon dioxide and water. During each pass through the liver, more alcohol is metabolized until there is no alcohol remaining in the bloodstream. Metabolism in the liver accounts for the elimination of approximately 90% of the alcohol consumed. The remaining alcohol is eliminated (in decreasing importance) via **urine**, **breath**, or **minor methods (sweat, tears, feces, etc.)**.

The rate of elimination tends to be fairly constant for an individual but will vary within a narrow range for a population of subjects. Most non-chronic alcohol abusers have a rate of elimination that falls within the range of 0.010 to 0.025 grams per 100 ml (or dL) of blood per hour with the **average rate of 0.015 grams per dL per hour**. Chronic alcohol abusers may exhibit elimination rates as high a two to three times that of a normal individual due to the development of pharmacodynamic metabolic tolerance. Chronic alcohol abuse over long periods of time typically results in liver damage and the development of cirrhosis of the liver.

It has been established that a small amount of alcohol metabolism takes place in the stomach before it is absorbed into the bloodstream, though the exact magnitude of this metabolism in the gastric mucosa is still debated. Even if the maximum estimates are assumed, this would only amount to the elimination of about one third of a standard alcoholic beverage from the stomach over a one hour period of time.



Many times the average rate of elimination is used to estimate an alcohol level at some time interval prior to a test. There are many additional variables that must be taken into account before this should be undertaken and typically an operator should ***not*** consider any alcohol concentration other than your test result. For example, simple differences in elimination rate or beta within the normal population can cause significant differences in BAC in both the absorptive and elimination phases even when all other factors are the same. (See diagram above) In addition, the elimination rate becomes non-linear at alcohol concentrations less than 0.02 making any estimations involving low alcohol concentrations significantly more difficult to perform. (See diagram below) Other factors such as absorption and distribution can significantly add to the complexity of estimations of BAC.

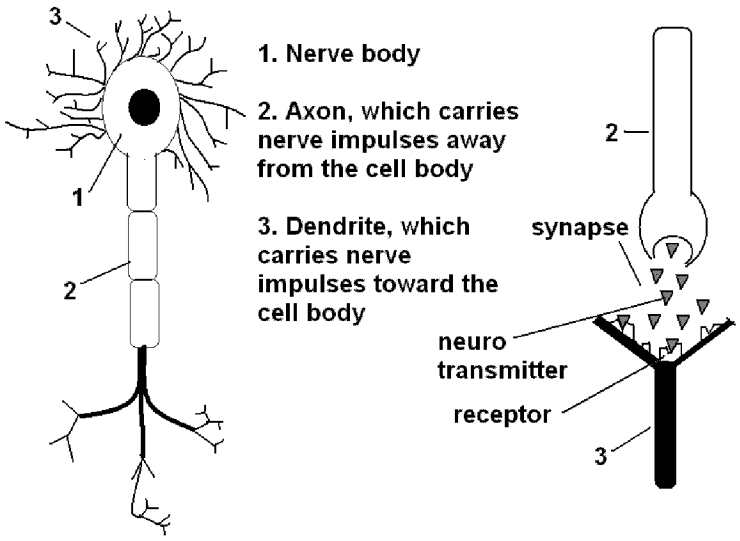


Pharmacology of Alcohol and Psychomotor Impairment

Though the brain comprises only about two percent of a person's body mass, fully twenty percent of the blood supply from the left side of the heart is carried to the **brain** via the carotid artery. Once alcohol reaches the **brain** it diffuses out of the bloodstream across the blood-brain barrier and starts to exert its intoxicating effects. Due to its large blood flow, the brain receives proportionally more alcohol than other poorly vascularized tissues.

Ethyl alcohol is not, contrary to popular belief, a stimulant. It is defined medically as a **depressant** and acts as an anesthetic in large doses. The degree of intoxication is therefore proportional to the concentration of the drug (alcohol) being delivered to the brain. While we can readily observe the intoxicating effects of alcohol on an individual, we need to look at the central nervous system on a cellular level to explain how alcohol exerts its effects.

The basic building block of the central nervous system is a highly specialized cell called the **neuron**. This cell, which forms large communication networks, transmits nerve impulses throughout the body which control voluntary and involuntary processes.



While neurons do not physically touch one another, they do chemically communicate at specialized junctions called **synapses.** In order to transmit nerve impulses across the synapse, the terminating neuron releases chemicals called **neurotransmitters.** These neurotransmitters trigger nerve impulses on the other side of the synapse by attaching to specific receptors on the surface of the post synaptic neuron.

By interfering with numerous **neurotransmitters**, as well as the membrane structure of the neuron, alcohol slows, inhibits, and depresses the efficient transmission of nerve impulses which we recognize in an individual as intoxication. Alcohol intoxication is closely correlated with the alcohol concentration in the arterial blood reaching the brain, thus **alcohol intoxication may have a rapid onset if conditions are favorable for rapid absorption into the bloodstream.**

Alcohol acts as a central nervous system **depressant** in all individuals and if consumed in sufficient quantity will lead to a comatose state or even death. The physical manifestation that a person exhibits while under the influence of alcohol that diminishes the body's ability to perform a particular task or function is termed **impairment.** Impairment due to alcohol consumption is both task specific and dose dependent. Between the limits of sobriety and lethality, it is logical to conclude that there exists some threshold level at which all individuals, even those habituated or highly tolerant to alcohol, will show detectable and measurable **impairment** in their ability to operate a motor vehicle safely. **For the purposes of determining if a person is driving under the influence, impairment refers to those manifestations which cause a person to operate a motor vehicle less safely than they would under normal conditions**.

Present day legal levels and inferences of alcohol influence are the result of:

1. **Epidemiological studies** of alcohol involvement in traffic crashes and fatalities.
    - According to NHTSA in 2004 39% of motor vehicle fatalities were alcohol related and 34% involved an alcohol concentration of 0.08 g/dL or g/210L or greater.
    - In contrast the Grand Rapids Study estimated that only 1.5% of the total driving population has an alcohol level of 0.08 g/dL or g/210L or greater.
    - The Grand Rapids Study estimated that a driver with an alcohol concentration of 0.08 was 3 to 4 times more likely to be involved in a motor vehicle crash than the average sober driver.
2. **Roadside studies** and **driving evaluations**.
    - Evaluation of driving and simulator studies reveals that 95% of studies show significant driving impairment by the time a subject reaches an alcohol level of 0.08 g/dL or g/210L.
    - Driving studies show impairment of tracking, evasive maneuvers, and emergency braking at alcohol levels as low as 0.03 to 0.06 g/dL or g/210L.
    - Depth perception, reaction time, lateral stability, speed maintenance, and steering performance show impairment at levels 0.07 to 0.10 g/dL or g/210L.
    - Accelerator and brake usage, signal errors, and curve taking ability show impairment at levels 0.11 to 0.16 g/dL or g/210L in driving studies.
3. **Controlled laboratory experiments** testing the skills associated with safe motor vehicle operation.
    - The majority of relevant laboratory experiments show significant impairment of cognitive function, divided attention, drowsiness, perception, simple and choice reaction time, tracking, vigilance, and vision at alcohol levels 0.08 g/dL or g/210L or higher.

Impairment can be observed in the physical manifestations that a subject will display while under the intoxicating effects of alcohol. The degree of impairment is proportional to the concentration of the alcohol (depressant). A subject who has a rising alcohol concentration is feeling the effect of an ever increasing dose of a depressant and will exhibit physical manifestations that can be clinically defined as **Stages of Intoxication**. This information is outlined in Table 2 (p. 38). It should be noted that the degree to which certain impairing effects may be present at a particular alcohol concentration may vary from person to person based on an individual's **tolerance** to alcohol. **Tolerance** is the body's attempt to diminish or adapt to the frequent presence of large doses of alcohol by reducing or compensating for alcohol's impairing effects. While people who regularly consume large doses of alcohol may show some **task dependent or behavioral tolerance** to alcohol's impairing effects on well learned tasks such as walking or talking, little to no tolerance is observed with relation to many critical driving skills such as divided attention tasks, choice reaction time, and critical judgment at alcohol levels greater than 0.08 g/dL of blood. Thus, **tolerance** may moderate the effects of alcohol but cannot eliminate them since exerts its effects on the **cellular level** of the central nervous system.

DUI & Drugs

Although the majority of drivers under the influence of intoxicants are under the influence of alcohol, drugs or the combination of alcohol and drugs impair a significant number of drivers. It is impossible to fully cover the many possible drugs or combinations of drugs that may lead to impaired driving skills. We will rather examine the most commonly abused drugs that have been found in DUI cases. It should also be noted that the Intoxilyzer™ 5000 does not detect or measure the presence of drugs and that blood and/or urine should be collected if drug use is suspected. However, it is not possible to analyze for the litany of 28,000 known drugs listed in the PDR of which the vast majority could impair at some dose. For this reason it is important to notify the DOFS Toxicology Section of any drugs that the suspect might be taking.

In order to show that a driver was impaired by drugs and less safe to operate a motor vehicle or watercraft the arresting officer's **observations** and the results of any **field sobriety tests** will be especially important. The DOFS toxicology report does not normally stand alone in the prosecution of a person suspected of being under the influence.

Marijuana: (11-nor-Delta-9-THC-9-carboxylic acid, which is the primary metabolite of Delta-9-THC, the active component of marijuana)

Besides alcohol, the most commonly found drug in DUI cases is marijuana. Marijuana can have deleterious effects on driving ability, but has been found to be particularly dangerous when combined with alcohol and/or other drugs.

1. Marijuana metabolite reported in **urine** indicates usage within the past 1 -3 days for the average user.

2. Marijuana reported in the **blood** indicates usage within the past 1-12 hours.

Marijuana metabolites in heavy chronic users (2 - 3 joints per day) may be detected in the blood for 24 or more hours. It is a common misconception that marijuana can be detected in the blood or urine for up to 30 days by the DOFS testing methodology.

Other Drugs Commonly found in DUI Cases

Drug	Approximate Level in Blood for Possible Impairment
1. Diazepam (Valium) and Nordiazepam (a metabolite of Valium)	900 mcg/L each (or in combination)
2. Midazolam (Versed) or Alprazolam (Xanax)	20 mcg/L
3. Phenobarbital	10 mg/L
4. Butalbital	5 mg/L
5. Carisoprodol (Soma)/ Meprobamate	10 mg/L each (or in combination)
6. Morphine / Hydromorphone(Dilaudid)	20 mcg/L
7. Codeine	50 mcg/L
8. Methamphetamine/Amphetamine	Any amount detected in blood
9. Cocaine	Any amount detected in blood
10. Gamma-Hydroxybutyric Acid (GHB)	50 mg/L
11. Volatiles (e.g., toluene, freon)	Any amount detected in blood

The above levels assume that the alcohol concentration is **negative**. It should be noted that most drugs usually produce an additive or synergistic (multiplied) effect with alcohol where their effects overlap. Thus the actual amount of drug necessary to produce significant impairment when used in combination with alcohol or other similar drugs may be much lower than the amounts listed above.

Drugs Found in Urine Which Could Adversely Effect Driving Ability

1. Cocaine and/or its (inactive) metabolite Benzoylecgonine
2. Methamphetamine and/or Amphetamine
3. Antidepressants (Prozac, Paxil) (Note: intoxication from drugs known as SSRIs such as Prozac is relatively uncommon)
4. Hallucinogens (MDA, MDMA, Ketamine(Special K))
5. Narcotics, such as dextromethorphan, morphine, codeine, hydrocodone, oxycodone.
6. Sedatives or sleeping medications such as zolpidem (Ambien) and zopiclone (Lunesta)

Note: No levels are reported for these or any other drugs in urine. Due to the complex relationship between a drug's duration of action and its elimination from the body, the presence of an impairing drug in the urine may not always be definitive evidence of impairment at the time of collection. As in all DUI cases where impairment must be established, the report of drugs in the urine should be evaluated in light of the circumstances of the case and documented indications of drug effects.

Respiratory Physiology and General Principles of Breath Alcohol Testing

RESPIRATORY PHYSIOLOGY

Respiration is the exchange of gases between an organism and its environment. In humans, respiration involves the absorption of oxygen from the environment and the elimination of carbon dioxide from the blood stream and is necessary to support life. In the lungs the blood is distributed by the pulmonary artery into millions of microscopic capillaries that bring the blood and breath into close contact in the pulmonary alveoli. During respiration air is taken in through the mouth or nose and transported by the trachea or windpipe into the lungs. In the lungs the trachea branches into smaller air tubes called bronchi which continue to branch and eventually terminate in small air sacs called **alveoli.** These alveoli are surrounded by capillaries and are elastic in nature. Since the blood and breath are only separated by a one cell thick semi-permeable membrane in the alveoli, the blood is able, by diffusion, to release carbon dioxide and absorb oxygen for use throughout the body. If alcohol is present in the blood, it too will diffuse across the **one cell thick semi-permeable membrane** into the breath in a fixed proportion to the alveolar blood alcohol concentration and the core body temperature.

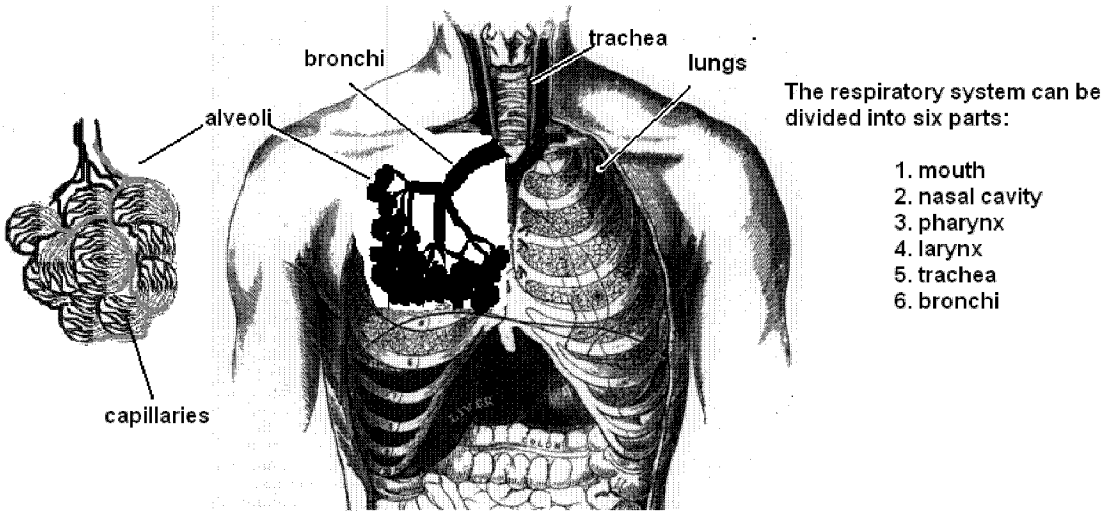


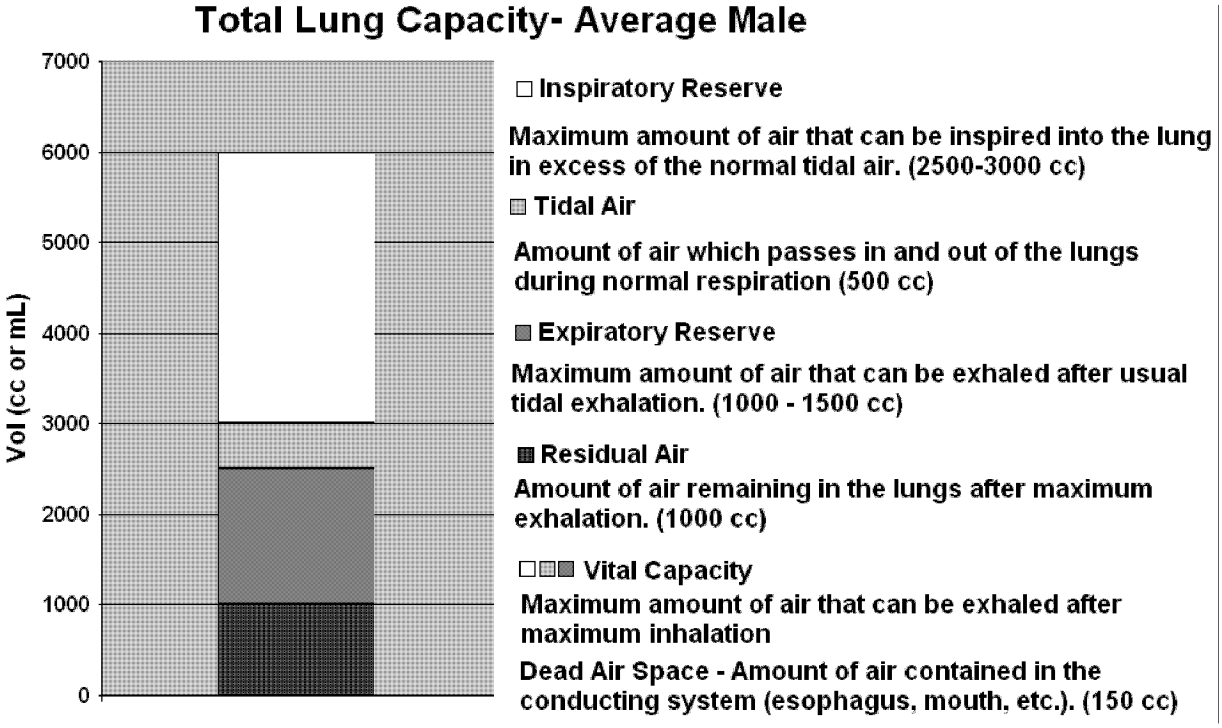
image adapted from Gray's Anatomy

All volatile substances (cigarette smoke, anesthetics, alcohol, volatile organic solvents, exhaust fumes, etc.) which exist either in the blood or the environment will diffuse from an area where the material is in high concentration into an area of lower concentration. For those gaseous compounds having a higher concentration in the environmental air than in the blood, the net transport will be into the blood, for those circumstances where the gaseous compound has a higher concentration in the blood than the environment, the net transport will be will be into the environment. Thus the **pulmonary alveoli** are the primary site for gas exchange between the blood and environment.

In order for alcohol to diffuse from the blood to the breath, it must first leave the blood and form a vapor or gas. The chemical principle that best describes this process is **Henry's Law**. It states that the concentration of a material in the gas state above a liquid containing the dissolved material will be proportional to the concentration of the material in the liquid state. This law not only applies to experiments carried out in beakers and test tubes in the laboratory, but also to the human body. Specifically it applies to alcohol vapor (gas) in the lung in contact with blood (liquid) containing alcohol. Alcohol diffuses across the **one cell thick semi-permeable membrane** of the capillaries into the air of the lung in proportion to its concentration in the blood. This is simply Henry's law in action. The greater the concentration of alcohol in a person's blood, the greater the concentration of alcohol in the air (breath) in the lung will be. The maximum breath alcohol concentration that is obtainable relative to a given blood alcohol concentration is limited by alcohol's blood:breath **equilibrium partition ratio.** When this **equilibrium ratio** of the number of alcohol molecules in the blood to the number of alcohol molecules in the breath is achieved, the number of alcohol molecules diffusing into the air in the lungs **equals** the number re-diffusing into the blood. This **equilibrium** air sample is the "deep lung air" that the Intoxilyzer™

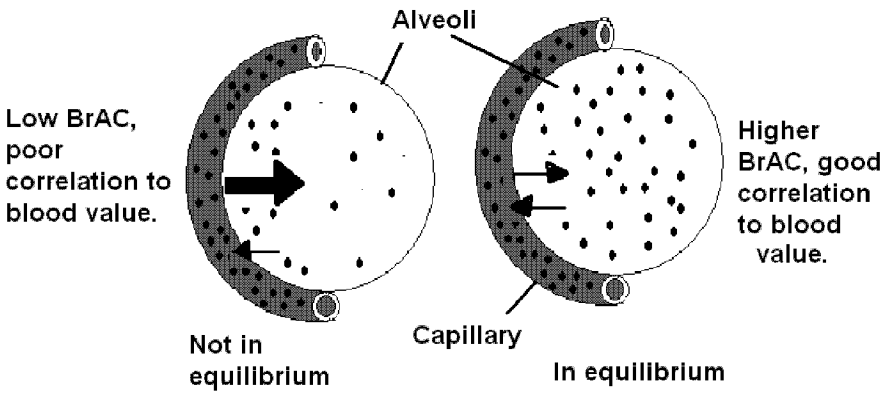
5000 is designed to sample. By sampling **equilibrium air**, the most accurate measurement of a person's alcohol concentration is achieved. Any sample that is not completely equilibrium air will return a test result that is less than the subject's actual equilibrium breath alcohol concentration. Unfortunately the partitioning of alcohol between the blood and the air in the lungs is not an instantaneous process and is somewhat temperature dependent. For this reason some of the air within the lungs may not remain in contact with the alveolar blood supply and the airway long enough to reach complete chemical and thermal equilibrium. Some types or classifications of air in the lung are more likely to be in equilibrium with the alveolar blood than others.

Classification of Air in the Respiratory System



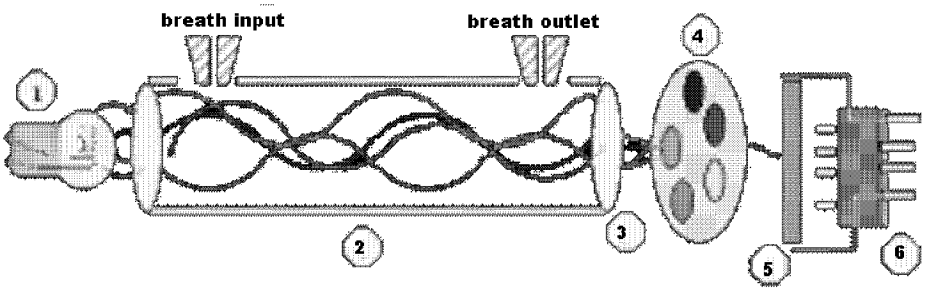
Total Lung Capacity: Equal to the residual air plus the vital capacity.

The Intoxilyzer™ 5000 by analyzing Expiratory Reserve Air (i.e.: the "deep lung air") is able to measure the amount of alcohol in the air which is in the best **equilibrium** with the alcohol in the blood as opposed to using Tidal or Dead Air Space air which has a lower alcohol concentration due to its having not reached a sufficient equilibrium. This shows that any time that deep lung air is not sampled, the analytical result will have a lower alcohol concentration than that derived from Expiratory Reserve air (the" deep lung air") and will give a test result which is less than the subject's actual equilibrium alveolar alcohol concentration. In reality it is very difficult to obtain an breath sample comprised completely of air in perfect equilibrium with the alveolar blood. For this reason most breath samples will contain a lower numerical alcohol concentration when reported in g/210L than a simultaneously drawn blood sample reported in g/dL.



PHYSICAL PRINCIPLES OF BREATH TESTING

Depending on their atomic and electronic structure, molecules **absorb** energy (light) of well defined **wavelengths**. For molecules, the relative intensity of infrared light absorption at different wavelengths functions as a molecular "fingerprint" specific to a given molecule. Thus by evaluating the relative intensity of absorption at specific wavelengths of infrared light we can specifically identify ethyl alcohol and differentiate its infrared response from other volatile compounds. Additionally, by measuring infrared light absorption at specific wavelengths, we can use a standard **differential absorption technique** to determine the amount of a given molecule in a sample. The Beer-Lambert Law dictates that the quantity of light absorbed will always be proportional to the concentration of the molecule in solution. This is the physical principle the Intoxilyzer™ 5000 uses to determine the amount of alcohol in a breath sample.



Functional Schematic of the Intoxilyzer™ 5000

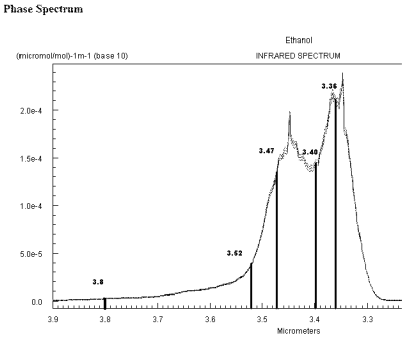


image adapted from nist webbook

The heart of the Intoxilyzer™ 5000 is its **sample chamber (2)** (see Diagram 1). At one end of the chamber, a **tungsten filament (1)** is heated to incandescence where it emits energy (light) in the infrared region of the spectrum, which is focused through the chamber by a **lens (3)**. At the opposite end of the sample chamber, a **second lens** focuses the energy (light) through a **filter wheel (4)** and onto an infrared energy (light) **detector (5).** The filter wheel is fitted with **five** wavelength filters. As the wheel rotates, each filter is inserted one at a time into the energy (light) beam prior to it reaching the detector. The detector generates and electric signal proportional to the amount of light striking it which is transmitted to a **processing unit (6).** Initially, the instrument establishes a **zero reference point** by measuring the amount of energy (light) striking the detector when the sample chamber is filled with **ambient air**.

During a breath test, as the amount of alcohol vapor in the sample chamber rises, the amount of infrared energy (light) reaching the detector falls relative to the zero point measurement. By determining the difference in the amount of energy (light) striking the detector between the two measurements, the instrument is able to mathematically calculate the breath alcohol concentration in the test sample. The Intoxilyzer™ 5000 displays and prints the analytical result in **grams of alcohol per 210 liters of breath** as required by Georgia law. By utilizing a five filter system and analyzing multiple wavelengths of light, the instrument is able to detect and warn the operator of any interfering materials that are present in a test subject's breath sample.

In summary, the Intoxilyzer™ 5000 measures the degree alcohol absorbs **infrared (IR) energy**...the more alcohol present, the greater the absorption. As shown, in the diagram above, a light source (1) generates IR energy which travels through a sample chamber (2) containing the subjects breath. Upon leaving the chamber, a lens (3) focuses the energy onto the chopper wheel (4) containing five narrowband IR filters. The IR energy passed by the filters is focused on a highly sensitive photo detector (5) which converts the IR pulses into electrical pulses. The microprocessor (6) interprets the pulses and calculates the subject's breath alcohol concentration which is then displayed and reported.

INTOXILYZER™ 5000 QUESTION FORMAT

Prior to running a test, the Intoxilyzer™ 5000 requires that the operator answer a series of questions. Here we will examine the question sequence and the proper responses that will be entered by the operator. While the display will show 16 characters, the instrument will hold 20 characters in response to a question.

1. OPERator's **LAST NAME**= type in last name and any suffix (i.e.: Jr., Sr., III, etc.)

2. OPERator's **FIRST NAME**= type in first name (no rank, nickname, or other title)

3. OPERator's **MID**dle **INIT**ial= type in a letter or push enter for none or to skip

4. PERMIT NUMBER= type in permit number from Intoxilyzer 5000 permit

5. SUBject's **LAST NAME**= type in last name and any suffix (i.e.: Jr., Sr., III, etc.)

6. SUBject's **FIRST NAME**= type in first name (no nicknames, titles, etc.)

7. SUBject's **MID**dle **INIT**ial= type in a letter or push enter for none or to skip

8. SUBject's **D**ate **O**f **B**irth **(DOB)**= type in date using **MM/DD/YY** format

9. SUBject's **DRIV**er's **LIC**ense= type in two letter code for State and the DL number (i.e.: TN 123456789), if a Georgia (GA) license you may omit the State code. If there is no State Code (i.e.: Military, Foreign, etc.) enter DL number. If no drivers license enter NONE

10. ARResting **OFF**icer's **LAST** Name= type in last name and any suffix (i.e.: Jr., Sr., III, etc.)

11. ARResting **OFF**icer's **FIRST** Name= type in first name (no rank, nickname, or titles)

12. ARResting **OFF**icer's **MID**dle **INIT**ial= type in a letter or push enter for none or to skip

13. ARResting **OFF**icer's **AGENCY**= type in city or county name and agency title (i.e.: Decatur P. D. or Fulton Co. S. O.); Georgia State Patrol type in GSP and unit (i.e.: GSP Post 4)

14. VIOLATION TIME= type in using **HHMM** format using **military time** (24 hour clock)

15. VIOLATION DATE= type in date using **MM/DD/YY** format

16. CASE NUMBER= type in case number, if your agency does not use case numbers type in citation number or push enter to skip

17. REVIEW DATA? Y/N enter yes to return to first question, no continues the test sequence

INTOXILYZER™ 5000 TEST SEQUENCE

The Intoxilyzer™ 5000 will perform a breath alcohol test after all of the pre-test questions are answered. Before starting the test sequence the instrument will ask the operator if they would like to review the information. This gives the operator the opportunity to check spelling and correct any errors prior to running the test. Once the test sequence is underway the information supplied by the operator cannot be changed.

"INSERT CARD" (flashing)

The instrument is requesting that an evidence card be inserted. Carefully align and insert the card with the proper side facing up and the proper edge going into the instrument as marked on the card.

"DIAGNOSTICS OK"

Prior to testing each set of samples, the instrument performs an electronics self test of some of the critical components of the optical bench. If all the tested components are in good working order the instrument will display and print "DIAGNOSTICS OK".

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:03EDT
AIR BLANK	.000	10:03EDT
SUBJECT SAMPLE	.100	10:04EDT
AIR BLANK	.000	10:04EDT
DIAGNOSTICS	OK	10:06EDT
AIR BLANK	.000	10:06EDT
SUBJECT SAMPLE	.101	10:07EDT
AIR BLANK	.000	10:07EDT

"AIR BLANK"

The instrument is purging the sample cell and taking a reference measurement of the ambient air in the sample chamber. Provided the ambient air is free of alcohol and that a stable signal was attained, a reading of zero should appear on the screen.

"PLEASE BLOW/R INTO MOUTHPIECE UNTIL TONE STOPS" (Scrolling)
"PLEASE BLOW/R" (flashing)

Insert mouthpiece securely into the breath tube. Instruct the subject to take a breath and blow into the mouthpiece keeping the tone sounding as long as possible. **Have the subject blow until they are physically unable to provide any more air** or until the instrument locks in a reading and proceeds to the next air blank**.** The subject has **three minutes** to provide an adequate breath sample. If the subject stops blowing before providing an adequate breath sample "PLEASE BLOW/R" will flash and a beep will sound every five seconds until the subject begins blowing or three minutes have elapsed from the time the instrument initially requested the subject to blow into the mouthpiece. If the subject does not provide an adequate breath sample in three minutes the instrument will print "INSUFFICIENT SAMPLE".

"SUBJECT .###"

The instrument is displaying the subject's breath alcohol concentration as the subject blows into the mouthpiece. A continuous tone indicates that the subject is blowing with sufficient pressure. A zero appears before the value, 0.### when the subject has delivered an sufficient breath sample for a test result to be recorded.

Remove and discard the mouthpiece used for the breath sample.
The mouthpiece will be replaced at the appropriate time.

If the subject never causes the tone to sound the subject is not blowing hard enough and <u>could</u> be considered a non-verbal refusal. The **arresting officer** must be able to articulate how the subject refused to take the test.

"AIR BLANK"

After the subject sample results have been displayed, the instrument will again purge the sample chamber with ambient air until a stable reference signal is obtained.

"WAIT"

The instrument will wait for 60 seconds. This intermission between breath samples is to provide the subject with sufficient time to recover from giving the first sample and allow the deep lung air to equilibrate.

When the 60 second wait is complete the instrument will repeat the above test sequence. **One breath test consists of two breath samples**. By analyzing replicate samples the possibility of random error as well as interference with a test by mouth alcohol or chemical interferents is minimized.

Once the test is completed the instrument will print the results. Each evidence card has three copies, if additional copies are needed press the "F2" key and properly insert a new evidence card when the "INSERT CARD" command starts to flash. As many copies as needed can be made in this manner. The operator must press the "F2" key within ***one minute*** or the instrument will resume the scrolling mode and no further copies of the test can be made.

Intoxilyzer 5000 Printout

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:28EDT
AIR BLANK	.000	10:28EDT
SUBJECT SAMPLE	.096	10:30EDT
AIR BLANK	.000	10:30EDT
DIAGNOSTICS	OK	10:32EDT
AIR BLANK	.000	10:32EDT
SUBJECT SAMPLE	.098	10:33EDT
AIR BLANK	.000	10:33EDT

The operator will sign the evidence card on the space provided for the operator's name and will give the test subject a copy of the completed evidence card.

The operator will complete all entries in the GBI - DOFS breath test logsheet for each test administered. (Appendix F) Enter the time of the first Diagnostics as the time of the test.

Evaluation of the Sample Results

The two breath sample results are the product of the analysis of two separate breath samples. Each sample will have a *slightly* different makeup of deep lung air and will typically show some small variability in alcohol concentration. This is a limitation imposed by human physiology and not an error of the breath testing unit. Thus **natural sampling variability** is the primary reason for small differences in alcohol concentrations observed between consecutive breath samples. As we saw in the respiratory physiology section of the manual, any breath sample that is composed of less than 100 % deep lung air or has not reached equilibrium will have a lower alcohol concentration than the subject's actual alveolar alcohol concentration.

Periodically breath testing instruments are evaluated for both accuracy and reproducibility or precision. **Breath testing instruments used in the state of Georgia typically exhibit both accuracy and reproducibility of about 5%**.

Accuracy— Accuracy is a measurement of how close to the actual value an instrument result lies. During quarterly inspections instruments are verified to produce results **accurate** within 5% using a 0.08 g/210L certified reference solution.

Precision— Precision is a measure of how close together a group of measurements are to each other

independent of their accuracy. Typically precision is reported using statistical terms such as standard deviation of the mean or coefficient of variation (%CV). With regard to **precision**, breath alcohol testing has a recognized sampling variability of about 7% for single breath samples and 5% for the mean of duplicate samples at the 95% confidence interval .* This means that if you take any one sample, 95% of the time it will be within 7% of the true mean of an infinite number of measurements. When you are able to obtain two samples, statistically the average of those two results will be within 5% of the true mean at the 95% confidence interval. Using this variability, replicate breath samples may differ by as much as 7% from their mean.

(* based on the internal evaluations done at the GBI-DOFS Implied Consent Section, 2005 and 2009. Internal research and some current literature cites approx. 7% measurement uncertainty for the average of two samples at the 99% confidence interval and 5% at the 95% confidence interval)

The 0.02 allowable difference—Operators should be careful not to confuse the 0.02 allowable difference required by OCGA 40-6-392 with the instrument's accuracy and precision which is within approximately 5% of the average breath test value. In order for breath sample results to be legally acceptable in the State of Georgia they must not vary by more than **0.020 grams**. The vast majority of the time the difference between samples should be significantly less than 0.02. Lower alcohol concentrations will usually exhibit a smaller absolute variability than higher ones. **To check any particular test to ensure that it is within the 0.02 allowable difference, take the larger value and subtract the smaller result, if the difference is 0.020 grams or less the test is acceptable**. If the test result is unacceptable, wait twenty minutes and repeat the test.

The Intoxilyzer™ 5000 analyzes the sample results of each breath test to insure that the results meet the 0.020 variance as required by Georgia Law. If the results fall outside of the required limits, the Intoxilyzer™ 5000 will print a message on the evidence card indicating that the results exceed the permitted difference, wait twenty minutes and retest.

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:03EDT
AIR BLANK	.000	10:03EDT
SUBJECT SAMPLE	.251	10:04EDT
AIR BLANK	.000	10:04EDT
DIAGNOSTICS	OK	10:04EDT
AIR BLANK	.000	10:06EDT
SUBJECT SAMPLE	.215	10:06EDT
AIR BLANK	.000	10:07EDT
SAMPLE DIFFERENCE	.036	
OUTSIDE REQUIRED PARAMETER		
WAIT 20 MIN		
RETEST		

Study Problems

Examine the following pairs of breath alcohol samples and determine if they fall within the acceptable test variance. Are the sample results acceptable under Georgia Law?

1.	0.067	0.089	4.	0.102	0.125
2.	0.218	0.195	5.	0.123	0.141
3.	0.243	0.228	6.	0.000	0.000

INTOXILYZER™ 5000 DISPLAY MESSAGES

This section will outline the other messages that the Intoxilyzer™ 5000 may display during a test.

"INVALID SAMPLE"

The instrument detected residual mouth alcohol in the subject's breath. The instrument completes the mode sequence, prints "INVALID SAMPLE .XXX" in place of the "SUBJECT TEST .###" and prepares itself to begin another

test. Restart a twenty minute waiting period and repeat the test. Refer to the Limitations of Breath Alcohol Testing section for a more detailed discussion of mouth alcohol.

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:10EDT
AIR BLANK	.000	10:10EDT
INVALID SAMPLE	.XXX	10:12EDT
AIR BLANK	.000	10:12EDT
INVALID SAMPLE		

OR

TEST	G/210L	TIME
DIAGNOSTICS	OK	11:11EDT
AIR BLANK	.000	11:12EDT
SUBJECT SAMPLE	.XXX	11:13EDT
AIR BLANK	.000	11:14EDT
DIAGNOSTICS	OK	11:16EDT
AIR BLANK	.000	11:16EDT
INVALID SAMPLE	.XXX	11:17EDT
AIR BLANK	.000	11:18EDT
INVALID SAMPLE		

"RANGE EXCEEDED"

A large quantity of alcohol has been detected in the subject's breath. The most likely cause of this message is the presence of mouth alcohol in large quantities. The operator should assess the situation and then wait twenty minutes and retest the subject

INVALID TEST
INSTRUMENT RANGE EXCEEDED

"INTERFERENT"

The subject's breath sample contains a compound, other than ethyl alcohol, that absorbs infrared energy at the same frequencies as ethyl alcohol and is interfering with the test. The instrument will abort the test and will print no result. In practice, very few of the compounds that are capable of interfering with a breath test will ever be found in a person's bloodstream in sufficient amounts to interfere with a breath test. The arresting officer will reread the Implied Consent card and request blood and/or urine for alcohol and/or drug testing. The officer may also want to consider requesting a volatile or inhalant screen on the blood sample.

INVALID TEST
INTERFERENT DETECTED

"INSUFFICIENT SAMPLE"

If the subject fails to provide an adequate breath sample within the allotted three minute sampling time, for either breath sample, the instrument will print 'INSUFFICIENT SAMPLE" for that breath sample. This result is ***not*** an admissible test result. Instruct subject how to provide breath sample and retest. (See Appendix H, **Komala v. State.**)

TEST	G/210L	TIME
DIAGNOSTICS	OK	08:20EDT
AIR BLANK	.000	08:20EDT
*SUBJECT SAMPLE	.---	08:24EDT
AIR BLANK	.000	08:24EDT
* INSUFFICIENT SAMPLE		

OR

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:10EDT
AIR BLANK	.000	10:10EDT
SUBJECT SAMPLE	.084	10:12EDT
AIR BLANK	.000	10:12EDT
DIAGNOSTICS	OK	10:14EDT
AIR BLANK	.000	10:14EDT
*SUBJECT SAMPLE	.---	10:17EDT
AIR BLANK	.000	10:18EDT
*INSUFFICIENT SAMPLE		

Georgia Model Intoxilyzer 5000s based on EN platform (serial # >10000) will also print the Breath Volume of the last attempt. This is **not** an alcohol concentration and is not an adequate sample.

TEST	G/210L	TIME
DIAGNOSTICS	OK	08:20EDT
AIR BLANK	.000	08:20EDT
*SUBJECT SAMPLE	.---	08:24EDT
BREATH VOLUME 0.425 LITERS		
AIR BLANK	.000	08:24EDT
*INSUFFICIENT SAMPLE		

OR

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:10EDT
AIR BLANK	.000	10:10EDT
SUBJECT SAMPLE	.084	10:12EDT
AIR BLANK	.000	10:12EDT
DIAGNOSTICS	OK	10:14EDT
AIR BLANK	.000	10:14EDT
*SUBJECT SAMPLE	.---	10:17EDT
BREATH VOLUME 0.355 LITERS		
AIR BLANK	.000	10:18EDT
*INSUFFICIENT SAMPLE		

"REFUSED"

If the subject **verbally refuses to provide a breath sample while the instrument is flashing "PLEASE BLOW/R"** press the "R" key and "ENTER". The instrument will print "REFUSED" for that breath sample. Under Georgia Law 40-6-392 a refusal is admissible or **if a single breath sample test result has been obtained with a subsequent refusal, the single test result is admissible.** The refusal function is only for instances where an individual verbally refuses to provide a sample once a test has been initiated. If a subject verbally refuses roadside then the refusal should be noted in the arresting officer's paperwork and a chemical test should not be attempted unless that refusal is withdrawn.

TEST	G/210L	TIME
DIAGNOSTICS	OK	10:48EDT
AIR BLANK	.000	10:48EDT
SUBJECT SAMPLE	REFUSED	10:49EDT
AIR BLANK	.000	10:50EDT
SUBJECT REFUSED TO CONTINUE		

OR

TEST	G/210L	TIME
DIAGNOSTICS	OK	11:10EDT
AIR BLANK	.000	11:10EDT
SUBJECT SAMPLE	.097	11:12EDT
AIR BLANK	.000	11:12EDT
DIAGNOSTICS	OK	11:14EDT
AIR BLANK	.000	11:14EDT
SUBJECT SAMPLE	REFUSED	11:15EDT
AIR BLANK	.000	11:15EDT
SUBJECT REFUSED TO CONTINUE		

"INVALID TEST"

The "START TEST" button was pushed at the wrong time, the evidence card was pulled from the printer, sample introduced at improper time, or the instrument's pump inadequately purged the sample chamber. The instrument sounds the Hi-Lo tone, aborts the test and prints "INVALID TEST" (assuming the card was not pulled from the printer).

SN 68-001199	01/02/1996
G1140.31	10:10EDT
INVALID TEST	

"INHIBIT - RFI"

High level radio frequency interference has been detected. The instrument aborts the test and prints "INHIBIT RFI INVALID TEST" . Locate the RFI source and either remove the source from the instrument's operating area and rerun the test or if the RFI is persistent contact the area supervisor about moving the instrument to an area free from RFI.

SN 68-001301	06/01/1995
G1140.33	13:40EDT
INVALID TEST	
INHIBITED-RFI	

"AMBIENT FAIL"

During the air blank the instrument was unable to establish a zero reference reading for the ambient air. The ambient air has become contaminated with alcohol or another material that is interfering with the instrument's ability to establish a zero reference. The area where the instrument is located should be thoroughly ventilated and the source of the interference located and removed.

SN 68-001199	01/02/1996
G1140.31	10:33EDT
INVALID TEST	
CHECK AMBIENT CONDITIONS	

"STABILITY FAIL"

The instrument was unable to obtain a stable reference signal. If another attempt to run a test gives this message the Implied Consent Area Supervisor should be contacted.

SN 68-000633	09/21/1994
G1140.15	09:25EDT
INVALID TEST	
UNABLE TO OBTAIN	
A STABLE REFERENCE	

LIMITATIONS OF BREATH ALCOHOL TESTING

The reliability of breath testing instruments even in the hands of competent, well trained operators and in the face of exhaustive and repeated field trials is regularly challenged. The success of any breath testing program depends on the competency of its operators to perform tests correctly and to successfully convey this competence while under, sometimes rigorous, cross-examination in the courtroom.

Operators Must:

1. Understand the basic fundamental principles of breath alcohol testing.
2. Be aware of possible sources of errors and limitations of breath testing.
3. Maintain and adhere to proper testing methods and procedures.

During a Test the Operator Must Concentrate on:

1. The quality of the breath sample that is collected.
2. The possibility of sample contamination by residual or mouth alcohol.
3. Correlation of subject test result with the subject's physical condition (i.e.: the possibility of drug usage).

Limitations Inherent in Breath Alcohol Testing

Through years of extensive laboratory and field testing, several factors have been identified that may cause problems in obtaining a valid breath test. We will examine each of these factors and show that by following the proper test procedures the Intoxilyzer™ 5000 operator may be assured of administering a valid breath alcohol test.

Residual or Mouth Alcohol

The introduction of alcohol into the oral cavity can cause the concentration of alcohol in the vapor in the mouth to exceed the subject's breath alcohol concentration for a brief period of time. This phenomena, known as residual or mouth alcohol, occurs when the oral cavity is contaminated by alcohol from an external source such as a last drink or an alcohol containing product or from an internal source such as alcohol containing vomitus introduced into the oral cavity during a regurgitation event. If the breath sample is contaminated with extraneous alcohol from these sources the possibility of this contamination significantly affecting the final breath alcohol reading can be effectively eliminated through the use of several simple safeguards.

1) Residual or mouth alcohol has been shown to completely dissipate from a subject's mouth in 10 to 15 minutes. This is the basis of the 20 minute wait. **All initial breath tests will be preceded by a twenty (20) minute waiting period.** During this waiting period the subject must be in a controlled environment, prohibited from consuming any liquid that contains alcohol, and monitored for regurgitation or vomiting. If the subject vomits make a note of it. When the subject has recovered sufficiently, allow them to rinse their mouth with water, and restart the twenty (20) minute waiting period. This also applies to cases of burping or belching where regurgitation is suspected. Even though it is highly unlikely they will affect the alcohol reading, a reasonable attempt should be made to ensure that the subject's mouth is free of any foreign object such as food, drink, tobacco, or gum during the twenty minute waiting period. The twenty (20) minute waiting period begins when the above conditions are satisfied. The Intoxilyzer operator is responsible for assuring the appropriate waiting period is met. 2) The second safeguard against mouth alcohol is the instrument's built in slope detector which monitors the change in alcohol concentration over the duration of the breath sampling. A typical good breath test is characterized by a quick rise in alcohol concentration followed by a gradual leveling off. Significant drops or erratic fluctuations in the alcohol concentration during the course of breath sampling indicate the possible presence of mouth alcohol and trigger the instrument to print an INVALID SAMPLE warning. High levels of mouth alcohol may result in a "RANGE EXCEEDED" warning. 3) The third safeguard is the fact that breath tests generally consist of two breath samples obtained approximately two minutes apart. Due to the rapid dissipation of mouth alcohol, we would expect the concentration of alcohol in the mouth to be reduced by approximately one half between the time of the first and second sample in a complete breath test. Thus, when two consecutive samples show close agreement it demonstrates that no significant level of mouth alcohol was present in the defendant's breath.

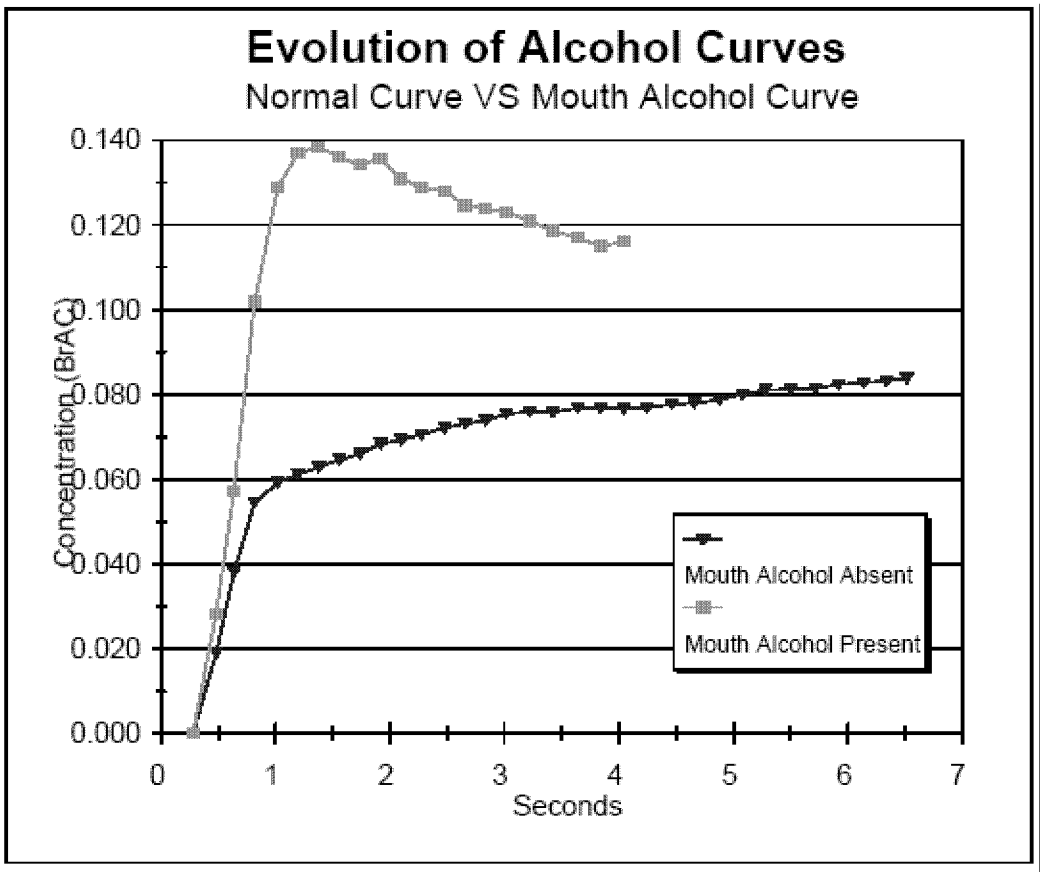


Image reproduced with permission from CMI Inc.

By utilizing the 20 minute wait, the Intoxilyzer™ 5000's built in slope or mouth alcohol detector, and the use of replicate samples, the operator can be assured that residual or mouth alcohol will not influence the printed alcohol concentration.

Drug Use by Test Subject

Use or misuse of drugs may cause impairment of driving skills that may be mistaken for driving under the influence of alcohol. By careful observation and comparison of the subject's physical manifestations of impairment with the breath alcohol result, the arresting officer may have reasonable suspicion of drug use by a subject. If the arresting officer suspects drug usage, request* blood and/or urine sample(s) be collected for analysis. Refer to the Pharmacology of Alcohol and Commonly Abused Drug section of the manual for a discussion of the various types of drugs and their effects.

***Read Implied Consent notice and designate sample(s).**

Radio Frequency Interference (RFI)

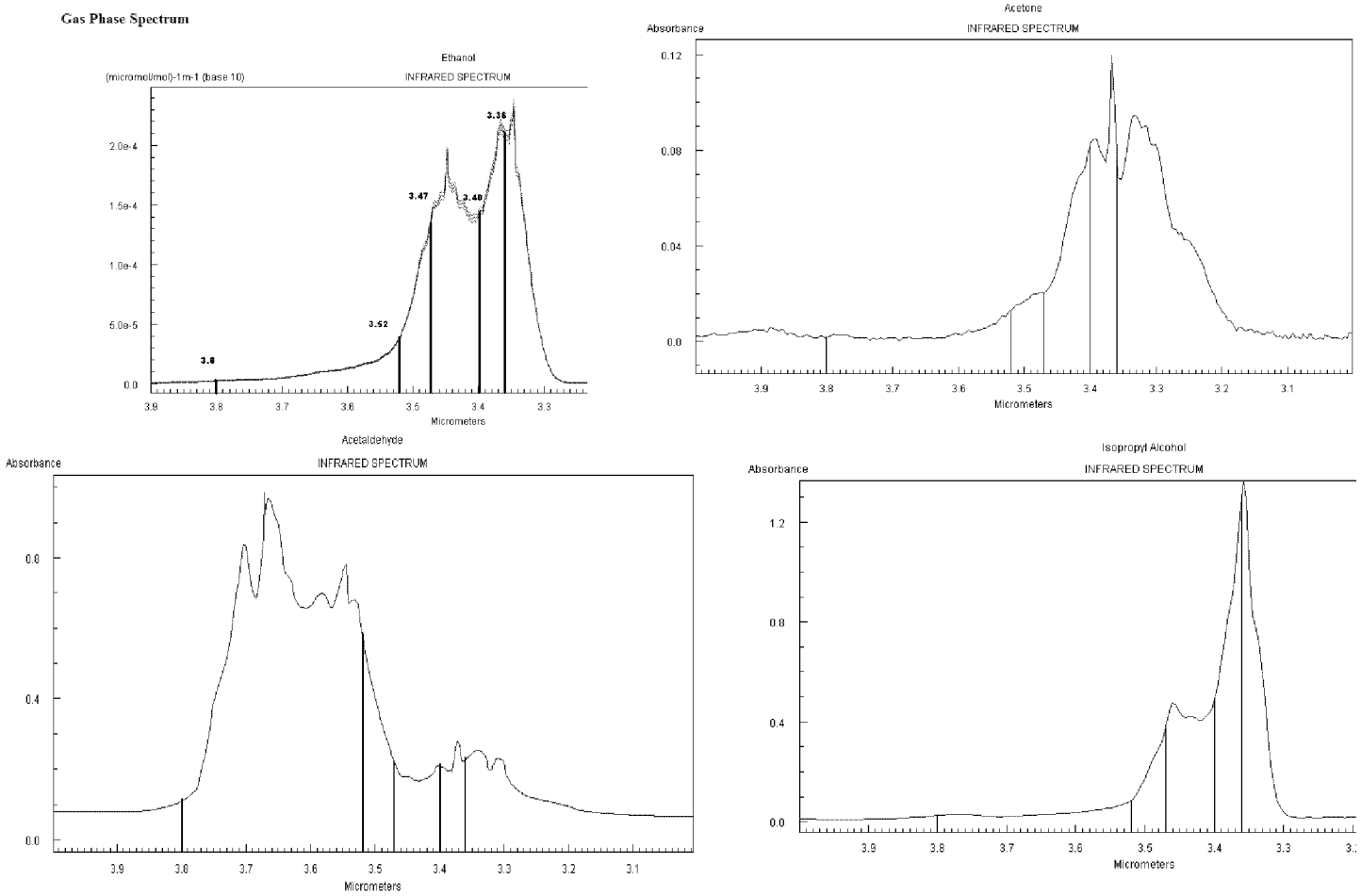
RFI occurs when powerful radio signals cause fluctuations in the electrical currents within the breath testing instrument's electronic circuitry. In order for this to be a problem, radio signals of the proper frequency and strength to interfere with the instrument's alcohol detection components must be present during a test. To address this issue the Intoxilyzer™ 5000 has a shielded electronic system and an RFI detector built into its operational components. If RFI is detected the instrument will display "INHIBIT - RFI INVALID TEST," abort the test, and print the evidence card with the above message. If this should occur, the operator should find the source of the RFI and remove it. To minimize the risk of getting a INHIBIT RFI message, the operator should refrain from making any radio transmissions during the breath test.

Diseases

Epileptics, diabetics nearing coma and heart attack patients may display symptoms mimicking those associated with being under the influence of alcohol. These conditions will in no way interfere with the ability of the Intoxilyzer™ 5000 to test the subject's breath for the presence of alcohol. While in a custodial situation claims of these conditions should be given serious attention, manifestations of impairment are most likely due to the influence of alcohol and would only be exacerbated by acute physiological conditions requiring medical attention. In untreated diabetics the acetone level in the body may rise significantly above normal concentrations causing diabetic coma and death. For these individuals, the acetone concentration may reach levels that the Intoxilyzer™ 5000 may detect. If an elevated level of acetone is present the instrument will display the message "INTERFERENT" and no test result will print. If this should occur, the arresting officer should request* blood and/or urine sample(s) be collected for analysis. If it is suspected that a person is a diabetic and they are indeed out of insulin control, immediate medical attention should be obtained for the subject.

Volatile Organic Solvents

The most likely volatile materials to be encountered by the operator in a DUI situation are acetone, isopropyl alcohol, toluene, benzene, xylene, ethyl acetate, freons, methylene chloride and methyl ethyl ketone (MEK). Exposure to these compounds may be either intentional as in the case of glue or solvent sniffing or unintentional as in occupational exposure. In either case, arguments are often made that these compounds are present in the bloodstream in sufficient concentration that the instrument would detect them in the breath. The Intoxilyzer™ 5000 has multiple wavelength filters that are designed to differentiate ethanol from volatile organic compounds that are capable of interfering with a breath test. If these compounds are present in sufficient quantity to be detected, the instrument will display the message "INTERFERENT" and no test result will print. If this should occur the arresting officer should request **a** blood sample. By utilizing the 20 minute wait, the Intoxilyzer™ 5000's ability to detect interferents, and replicate breath samples the possibility of interference from volatile organic solvents is effectively eliminated.



Comparison of select infrared spectra with spectra for ethanol. Images from webbook.nist.gov.

Safeguards Against Breath Testing Limitations

Issue	Operator	Instrument
Mouth Alcohol	Ensure the 20 minute wait is observed. No alcohol or foreign objects in the mouth during the 20 minute wait.	Monitors the slope of the BrAC profile during exhalation and evaluates the agreement between replicate samples.
Deep Lung Air/ Sufficient Sample	Properly instruct the subject to take a deep breath and blow until told to stop. Facilitate a maximum exhalation. Assess medical or physical limitations to adequate breath samples.	Ensures that the subject blows with a certain force and a certain total time or total volume. Requires the subject to continue to blow until the BrAC is no longer significantly rising.
Instrument Working Properly	Observe instrument for proper operation. Verify question sequence, display messages, and test routine are normal. Be aware of any environmental elements that would prohibit optimal test conditions.	Performs self diagnostic before every sample. Periodic inspection performed every calendar quarter.
Carryover/ Ambient Alcohol	Make sure that the area around the instrument is free of any potential source of volatile chemicals or alcohol such as cleaners or spilled alcoholic beverages.	Performs air blanks before and after every sample which purge the instrument with ambient air. Failure to purge sample chamber will result in an Ambient Fail warning.
Radio Frequency Interference (RFI)	Refrain from using any radios, cell phones, or wireless devices in the immediate vicinity of the instrument during testing.	Electromagnetically shielded against RFI. Contains RFI antenna and detection circuit which will inhibit the test in the presence of significant RFI.
Interferents / Volatile Chemicals	Assess the subject and if volatile abuse is suspected request a blood test.	Compares responses at five IR filters to differentiate ethanol from other compounds. Gives Inteferent warning if other compounds are detected.

IMPLIED CONSENT and DUI LAW

The State of Georgia considers that any person who drives or is in actual physical control of a moving vehicle in violation of any provision of Code Section 40-6-391 constitutes a direct and immediate threat to the welfare and safety of the general public. Therefore, any person who operates a motor vehicle upon the highways or elsewhere throughout this state shall be deemed to have given consent, subject to Code Section 40-6-392, to a chemical test or tests of his or her blood, breath, urine, or other bodily substances for the purpose of determining the presence of alcohol or any other drugs.

Requirements (authority 40-5-55)

Georgia law requires every motor vehicle operator in this state to take a chemical test or tests to determine the alcoholic or drug content of his/her body, if requested by a law enforcement officer who has reasonable cause to believe the operator is under the influence of intoxicants or drugs. The test results, if positive, are admissible as evidence against the driver when he/she is tried for driving under the influence.

Statutory Inferences of DUI (authority 40-6-392(b))

1. If there was at that time an alcohol concentration of **0.05 grams or less**, the trier of fact in its discretion may infer there from that the person **was not** under the influence of alcohol.

2. If there was at that time an alcohol concentration in **excess of 0.05 grams but less than 0.08 grams**, such fact shall not give rise to any inference that the person **was or was not** under the influence of alcohol, but such fact may be considered by the trier of fact with other competent evidence in determining whether the person is under the influence of alcohol or drugs.

3. If there was at that time, or within three hours after the driving or being in actual physical control of a moving vehicle from alcohol consumed before the driving ended, an alcohol concentration of **0.08 grams or more** in the person's blood, breath, or urine, **the person shall be in violation of the law** for driving under the influence of alcohol.

Performance of State Administered Tests (authority 40-6-392(a)(2))

When a person undergoes a chemical test at the request of a law enforcement officer, only a physician, registered nurse, laboratory technician, emergency medical technician, or other qualified person may withdraw blood for the purpose of determining the alcohol or drug content of the sample. This limitation does not apply to taking of **breath** or urine specimens.

Submission (authority 40-6-392(a)(3))

If a driver does submit to being tested, the law:

1. Gives the accused the right to additional tests of their own choosing at their own expense by a qualified person, **after** submission to the State designated test or tests.

2. Obligates the law enforcement officer not to deny the accused the right to additional tests.

3. Provides that the results showing intoxication will be admissible evidence in the criminal proceeding which may follow. In this case, the operator will be called to prove that the test was run in accordance with the law.

Refusal (authority 40-5-67(a) and 40-5-67.1)

If the motor vehicle operator refuses to submit to a chemical test of their blood, breath, urine, or other bodily substance as specified by the **arresting officer**, after being properly requested to do so, the Implied Consent Law provides that:

1. No test shall be given.

2. The **arresting officer** must transmit a sworn affidavit **within ten days after the arrest** to the Department of Driver's Services (DDS).

3. The subject's driver's license will be suspended for a time determined by law.

4. The refusal will be admissible in evidence against the driver.

Test Administered without Consent (authority 40-5-55(b))

The law enforcement officer may direct a qualified person to administer a blood test **without consent** and **without reading** the person the Implied Consent Warning when the person is:

1. Dead

2. Unconscious

3. Otherwise in a condition rendering them incapable of refusing. The occasions when this procedure may be legitimately used are **rare**.

Suspension Proceedings (authority 40-5-67 and 40-5-67.1)

As amended by the General Assembly, the notarized, sworn report of a law enforcement officer regarding the refusal of an arrested person to a chemical test shall
be transmitted to the DDS within **ten days** after the arrest of such person, and the period of suspension shall begin to run only **after** all administrative hearings and appeals shall have been exhausted. **Warning:** Any report of a law enforcement officer which has been transmitted to or received by the DDS **more than ten days** after the arrest shall be filed by the department for record purpose and **no** action shall be taken by the department. As used in this subsection, the term "transmitted" shall mean deposited with the U. S. Postal Service and a report under this subsection shall have been deemed to have been transmitted within the ten day period if it is **postmarked on or before the tenth day after the arrest**.

Upon receiving the appropriate Affidavit from the arresting officer showing that the driver has refused to submit to a chemical test, the DDS will send the driver notice that their driver's license has been suspended. The driver has the right to request a hearing, **within ten days**, of the suspension notice, to be held before the Office of State Administrative Hearings (OSAH) to determine if all the provisions of the Implied Consent Law were followed. The Arresting Officer will be an essential part of the hearing.

If the decision of the OSAH hearing is adverse to the driver, he can file a motion for re-consideration, within ten days, to the OSAH. If the agency review is adverse to him, then he may appeal to a Superior Court for a review of the record of the case.

Recent Amendments to Implied Consent Law

The General Assembly modified both the DUI and Implied Consent Law during its 2001 Session. These changes became effective on July 1, 2001. We review these changes here and encourage all operators and arresting officers to become thoroughly familiar with the sections of OCGA regarding the Implied Consent notice.

Implied Consent Warnings (authority 40-5-67.1)

At the time a chemical test or tests are requested, the arresting officer shall select and read the appropriate Implied Consent warning from the following

1. ***Implied Consent notice for suspects under age 21:***

"Georgia law requires you to submit to state administered chemical tests of your blood, breath, urine, or other bodily substances for the purpose of determining if you are under the influence of alcohol or drugs. If you refuse this testing, your Georgia driver's license or privilege to drive on the highways of this state will be suspended for a minimum period of one year. Your refusal to submit to the required testing may be offered into evidence against you at trial. If you submit to the testing and the results indicate an alcohol concentration of **0.02 grams or more**, your Georgia driver's license or privilege to drive on the highways of this state may be suspended for a minimum period of one year. After first submitting to the required tests, you are entitled to additional chemical tests of your blood, breath, urine, or other bodily substances at your own expense and from qualified personnel of your own choosing. Will you submit to the state administered chemical tests of your (designate which tests) under the Implied Consent Law?"

2. ***Implied Consent notice for suspects age 21 or over:***

"Georgia law requires you to submit to state administered chemical tests of your blood, breath, urine, or other bodily substances for the purpose of determining if you are under the influence of alcohol or drugs. If you refuse this testing, your Georgia driver's
license or privilege to drive on the highways of this state will be suspended for a minimum period of one year. Your refusal to submit to the required testing may be offered into evidence against you at trial. If you submit to testing and the results indicate an alcohol concentration of **0.08 grams or more**, your Georgia driver's license or privilege to drive on the highways of this state may be suspended for a minimum period of one year. After first submitting to the required state tests, you are entitled to additional chemical tests of your blood, breath, urine, or other bodily substances at your own expense and from qualified personnel of your own choosing. Will you submit to the state administered chemical tests of your (designate which tests) under the Implied Consent Law?"

3. ***Implied Consent notice for commercial driver suspects:***

"Georgia law requires you to submit to state administered chemical tests of your blood, breath, urine, or other bodily substances for the purposes of determining if you are under the influence of alcohol or drugs. If you refuse this testing, you will be disqualified from operating a commercial motor vehicle for a minimum period of one year. Your refusal to submit to the required testing may be offered into evidence against you at trial. If you submit to the testing and the results indicate the presence of any alcohol, you will be issued an out-of-service order and will be prohibited from operating a motor vehicle for 24 hours. If the results indicate an alcohol concentration of **0.04 grams or more**, you will be disqualified from operating a commercial motor vehicle for a minimum period of one year. After first submitting to the required state tests, you are entitled to additional chemical tests of your blood, breath, urine, or other bodily substances at you own expense and from qualified personnel of your own choosing. Will you submit to the state administered chemical tests of your (designate which tests) under the Implied Consent Law?"

If any such notice is used by a law enforcement officer to advise a person of his or her rights regarding the administration of chemical testing, such person shall be deemed to have been properly advised of his or her rights under this Code section and under Code section 40-6-392 and the results of any chemical test, or the refusal to submit to a test, shall be admitted into evidence against such person. Such notice shall be read in its entirety but need not be read exactly

so long as the substance of the notice remains unchanged.

Code Section 40-6-392

(1)(A) Chemical analysis of the persons blood, urine, breath, or other bodily substance, to be considered valid under this Code section, shall have been performed according to methods approved by the Division of Forensic Sciences of the Georgia Bureau of Investigation on a machine which was operated with all its electronic and operating components prescribed by its manufacturer properly attached and in good working order and by an individual possessing a valid permit issued by the Division of Forensic Sciences for this purpose. The Division of Forensic Sciences of the Georgia Bureau of Investigation shall approve satisfactory techniques or methods to ascertain the qualifications and competence of individuals to conduct analyses and to issue permits, along with requirements for properly operating and maintaining any testing instruments, and to issue certificates certifying that instruments have met those requirements, which certificates and permits shall be subject to termination or revocation at the discretion of the Division of Forensic Sciences.

(B) In all cases where the arrest is made on or after January 1, 1995, and the state selects breath testing, **two sequential breath samples shall be requested for the testing of alcohol concentration. For either or both of the sequential samples to be admissible in the state's or plaintiffs case-in-chief, the readings shall not differ from each other by an alcohol concentration of greater than 0.020 grams and the lower of the two results shall be determinative for accusation and indictment purposes and administrative license suspension purposes**. No more than two sequential series of a total of two adequate breath samples each shall be requested by the state; provided, however, that after an initial test in which the instrument indicates an adequate breath sample was given for analysis, any subsequent refusal to give additional breath samples shall not be construed as a refusal for purposes of suspension of a driver's license under Code section 40-5-55 and 40-5-67.1. Notwithstanding the above, a refusal to give an adequate sample or samples on any subsequent breath, blood, urine, or other bodily substance test shall not affect the admissibility of the results of any prior samples. An adequate breath sample shall mean a breath sample sufficient to cause the breath-testing instrument to produce a printed alcohol concentration analysis.

(f) "Each time an approved breath-testing instrument is inspected, the inspector shall prepare a certificate which shall be signed under oath by the inspector and which shall include the following language:
"This breath-testing instrument (serial number _____) was thoroughly inspected, tested, and standardized by the undersigned on (date_____) and all of its electronic and operating components prescribed by its manufacturer are properly attached and are in good working order."

When properly prepared and executed, as prescribed in this subsection, the certificate shall, notwithstanding any other provision of the law, be self-authenticating, shall be admissible in any court of law, and shall satisfy the pertinent requirements of paragraph (1) of subsection (a) of the Code section and subparagraph (g)(2)(F) of Code section 40-5-67.1." (See appendix E)

Enforcement Procedures

In order to maintain an efficient and effective breath alcohol testing program arresting officers should adhere to a standard set of procedures when initiating and following through on a DUI stop. This will ensure that the arresting officer will properly meet both the legal and scientific criterion necessary for an admissible breath test. The arresting officer will also see positive results in that they are able to make more arrests that result in either license suspension or convictions for DUI. While exact procedures may vary from agency to agency, the minimal requirements are outlined in the following sections.

Step 1 - Stopping the Vehicle

The officer must have reasonable cause to stop the vehicle and briefly detain its occupants to investigate the circumstances that provided your suspicion. You must be able to articulate this cause at an OSAH hearing or trial proceeding.

Step 2 - Detention of the Person

An officer may ask the stopped detainee a modest number of questions to determine:

1. Identity.

2. Try to obtain information confirming or dispelling your suspicions. Unless the detainee's answers provide you with probable cause to arrest them, or you have other grounds for arrest, you must release the subject.

Note: You **do not** have to advise the driver of their **Miranda rights** when questioning a motorist detained, not arrested, pursuant to a routine traffic stop. The driver's pre-arrest statements are admissible against them in any criminal proceedings.

Step 3 - Grounds for a DUI Arrest

The officer must have probable cause to think the driver who was in actual physical control of a moving vehicle upon the public roads and highways of this State or elsewhere throughout the State is under the influence. The grounds for the arrest must be articulated in any OSAH hearing or trial proceedings. Grounds for arrest may include factors such as the subject's driving, appearance, odor, behavior, ability to follow instructions, mental comprehension, performance on field sobriety tests, PBT results, and the officer's professional opinion that the subject is under the influence.

Step 4 – Arrest

The officer must have **probable cause** to make the arrest and then make the arrest **before** the **Implied Consent Warning is read**. The arrest must be for driving under the influence, in addition to other violations of the traffic laws of the State of Georgia if applicable. You must only make a legal arrest, you must be able to clearly and plainly articulate to an OSAH hearing officer or a court how you made the arrest.

You will be required to testify about:

1. The basis of the arrest.
2. The circumstances of the arrest.
3. How you told the driver of the arrest and the charges.
4. How you read the driver the Implied Consent Warning.
5. What statements the driver made to you.
6. What statements you made to the driver.

In custody treatments at the scene of a stop:

If a motorist who has been detained in a traffic stop thereafter is subject to treatment that renders him "in custody", you **must advise** him of his Miranda rights in order for his post-arrest statements or post arrest field sobriety evaluations to be admissible as evidence in a criminal proceeding.

When treatment of a motorist at the scene of the stop is equivalent to a formal arrest:

1. If a reasonable man in the suspect's position would have felt that he was not free to leave, not whether you would have permitted him to leave.

2. If the driver was detained for over one-half hour, absent exigent circumstances.

3. If part of the time is spent in the patrol car (for reasons other than safety, weather, etc.).

4. If you persistently question the driver in your patrol car, resulting in a confession or other incriminating circumstances.

5. If the driver is a minor, he is denied permission to contact his parents or guardian.

Step 5 - The Implied Consent Warning

After the legal arrest, the arresting officer must read the driver's rights under the Implied Consent Law. The Implied Consent card directly quotes Georgia's Implied Consent law and must be **strictly** adhered to. **Read** the Implied Consent card to the driver at the time of the arrest, not later, and bring it to the hearing or trial and read from it while testifying that you advised him of these rights. Do not attempt to advise the driver or testify from memory. Be sure to request that the driver submits to the test or tests you designate.

After reading the Implied Consent Warning, if the driver requests an attorney, use positive language to inform the arrestee that he has the right to an attorney **after** he submits or refuses to take the test. After the driver submits to the designated tests, upon his request for an additional test you are **required** to make it available to him within reason. It is the responsibility of the driver to pay and make arrangements to have the independent test samples analyzed.

Step 6 – Refusal

Tell the OSAH hearing officer in what manner the driver refused to take the specified tests.

1. If the refusal was verbal, testify as to the exact words that the driver used, if possible. This is an instance when good field notes are invaluable.

2. If the refusal was non-verbal, observe the driver closely and testify as to why you think he gave a non-verbal refusal.

The fact of refusal must be determined by the OSAH hearing officer. He will need to have all of the available facts in order to render his decision.

1. Be sure to read the Implied Consent notice to the driver.

2. If a preliminary breath alcohol screening test (e.g.: an Alcosensor) is administered, explain to the driver that this test is **not** required by law. It **does not** take the place of the Implied Consent chemical tests and that his driver's license will not be suspended if he refuses the test. Make sure the driver understands the difference between the preliminary alcohol screening test and the Implied Consent test.

A frequently asked question at this point is what are the driver's rights to an attorney before or during submission to a test? The license suspension under Implied Consent Law is a civil proceeding and Miranda **does not** apply. However, Miranda does apply in criminal proceedings. The United States and Georgia Supreme Courts have ruled that the driver

does not have a right to an attorney at the time the test is given. It is important to make it very clear and understandable to the driver that he **does not** have a right to an attorney when deciding whether or not to submit to the chemical test.

Georgia law requires that the driver be advised of his Implied Consent rights on the scene of the arrest. If the driver refuses the tests, you may not administer a chemical test to the subject unless the subject first withdraws their refusal. Georgia courts have ruled the driver has the right to change his mind after a refusal and take the test later with no penalty (Dept. of Public Safety v. Seay, 206 GA App.71). Law enforcement personnel may ask a subject who refuses a chemical test a second time if they would like to withdraw their refusal, but must be careful not to coerce the subject. As of 2006, OCGA 40-5-67.1 (d.1) allows for the obtaining of samples for chemical testing from a refusing subject by means of a properly executed search warrant.

Step 7 - The Implied Consent Affidavit

When a driver refuses to be tested, it is up to the arresting officer to put the ALS machinery in motion. To do this you must sign a Sworn Affidavit that:

1. You had probable cause to make the arrest

2. You had reasonable cause to think the driver was:

    a. driving or operating a motor vehicle.
    b. was on a public road or highway or elsewhere in the State.
    c. was under the influence of alcohol or drugs or both.
    d. the Driver was properly advised of the Implied Consent Warning.
    e. the driver refused to submit to the designated chemical tests.

You will then forward this Sworn Statement to the DDS, which will initiate ALS procedures. Fill the Affidavit completely; swear to the accuracy of the Affidavit at the same time your signature is notarized. Be aware of the 10 day requirement that was discussed earlier in this section. **Cases that occur on or after January 1st 2012 no longer require notarization of the ALS affidavit form 1205.**

Step 8 - Submission to the Tests

When the driver agrees to be tested, the Implied Consent Law requires the chemical test to be administered under the **direction** of the **Arresting Officer**. This **does not** mean that you must personally administer the test or tests or that you even observe the entire process. The test(s) can be performed by a certified Intoxilyzer™ 5000 operator or by other qualified personnel in the case of blood and/or urine. You **must** however be able to testify from first hand knowledge that all requirements were fulfilled or your test result may not be admissible.

Conclusion

By vigorous adherence to these procedures, you will be able to make better DUI cases that will result in more successful suspensions or prosecutions, which will make the streets and highways of Georgia safer for all motorists.

UNITS OF MEASUREMENT

Metric	English	Conversions
Weight		
Kilogram (kg)	pound (lb.)	1 kg = 2.2 lb.
gram (g)	ounce (oz)	28.35 g = 1 oz
milligram (mg)		1000 mg = 1 g
microgram (mcg)		1000 mcg = 1 mg
Volume		
liter (l)	quart (qt)	0.946 l = 1 qt
milliliter (ml)	fluid ounce (fl oz)	29.6 ml = 1 fl oz
cubic centimeter (cc)		1 cc = 1ml
deciliter (dl)		1dl = 100 ml
Temperature		
degree Celsius (C^o)	degree Fahrenheit (F^o)	$F^o = 9/5\ C^o + 32$

TABLE 1
Guide to Estimating Approximate Body Alcohol Concentration

Average Male Physiology – 17% Body Fat (Vd = 0.7L/kg)

	No.of standard drinks (0.6 oz ethanol: 5%-12 oz beers, 12%-5 oz wine)											
Weight (lb)	1	2	3	4	5	6	7	8	9	10	11	12
100	0.044	0.088	0.132	0.176	0.220	0.264	0.308	0.352	0.396	0.441	0.485	0.529
110	0.040	0.080	0.120	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.441	0.481
120	0.037	0.073	0.110	0.147	0.184	0.220	0.257	0.294	0.330	0.367	0.404	0.441
130	0.034	0.068	0.102	0.136	0.169	0.203	0.237	0.271	0.305	0.339	0.373	0.407
140	0.031	0.063	0.094	0.126	0.157	0.189	0.220	0.252	0.283	0.315	0.346	0.378
150	0.029	0.059	0.088	0.117	0.147	0.176	0.206	0.235	0.264	0.294	0.323	0.352
160	0.028	0.055	0.083	0.110	0.138	0.165	0.193	0.220	0.248	0.275	0.303	0.330
170	0.026	0.052	0.078	0.104	0.130	0.155	0.181	0.207	0.233	0.259	0.285	0.311
180	0.024	0.049	0.073	0.098	0.122	0.147	0.171	0.196	0.220	0.245	0.269	0.294
190	0.023	0.046	0.070	0.093	0.116	0.139	0.162	0.185	0.209	0.232	0.255	0.278
200	0.022	0.044	0.066	0.088	0.110	0.132	0.154	0.176	0.198	0.220	0.242	0.264
210	0.021	0.042	0.063	0.084	0.105	0.126	0.147	0.168	0.189	0.210	0.231	0.252
220	0.020	0.040	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.240
230	0.019	0.038	0.057	0.077	0.096	0.115	0.134	0.153	0.172	0.192	0.211	0.230
250	0.018	0.035	0.053	0.070	0.088	0.106	0.123	0.141	0.159	0.176	0.194	0.211
270	0.016	0.033	0.049	0.065	0.082	0.098	0.114	0.131	0.147	0.163	0.179	0.196
290	0.015	0.030	0.046	0.061	0.076	0.091	0.106	0.122	0.137	0.152	0.167	0.182

Average Female Physiology – 29% Body Fat (Vd = 0.6 L/kg)

	No.of standard drinks (0.6 oz ethanol: 5%-12 oz beers, 12%-5 oz wine)											
Weight (lb)	1	2	3	4	5	6	7	8	9	10	11	12
100	0.051	0.103	0.154	0.206	0.257	0.308	0.360	0.411	0.463	0.514	0.565	0.617
110	0.047	0.093	0.140	0.187	0.234	0.280	0.327	0.374	0.421	0.467	0.514	0.561
120	0.043	0.086	0.128	0.171	0.214	0.257	0.300	0.343	0.385	0.428	0.471	0.514
130	0.040	0.079	0.119	0.158	0.198	0.237	0.277	0.316	0.356	0.395	0.435	0.474
140	0.037	0.073	0.110	0.147	0.184	0.220	0.257	0.294	0.330	0.367	0.404	0.441
150	0.034	0.069	0.103	0.137	0.171	0.206	0.240	0.274	0.308	0.343	0.377	0.411
160	0.032	0.064	0.096	0.128	0.161	0.193	0.225	0.257	0.289	0.321	0.353	0.385
170	0.030	0.060	0.091	0.121	0.151	0.181	0.212	0.242	0.272	0.302	0.333	0.363
180	0.029	0.057	0.086	0.114	0.143	0.171	0.200	0.228	0.257	0.286	0.314	0.343
190	0.027	0.054	0.081	0.108	0.135	0.162	0.189	0.216	0.243	0.271	0.298	0.325
200	0.026	0.051	0.077	0.103	0.128	0.154	0.180	0.206	0.231	0.257	0.283	0.308
210	0.024	0.049	0.073	0.098	0.122	0.147	0.171	0.196	0.220	0.245	0.269	0.294
220	0.023	0.047	0.070	0.093	0.117	0.140	0.164	0.187	0.210	0.234	0.257	0.280
230	0.022	0.045	0.067	0.089	0.112	0.134	0.156	0.179	0.201	0.223	0.246	0.268
250	0.021	0.041	0.062	0.082	0.103	0.123	0.144	0.164	0.185	0.206	0.226	0.247
270	0.019	0.038	0.057	0.076	0.095	0.114	0.133	0.152	0.171	0.190	0.209	0.228
290	0.018	0.035	0.053	0.071	0.089	0.106	0.124	0.142	0.160	0.177	0.195	0.213

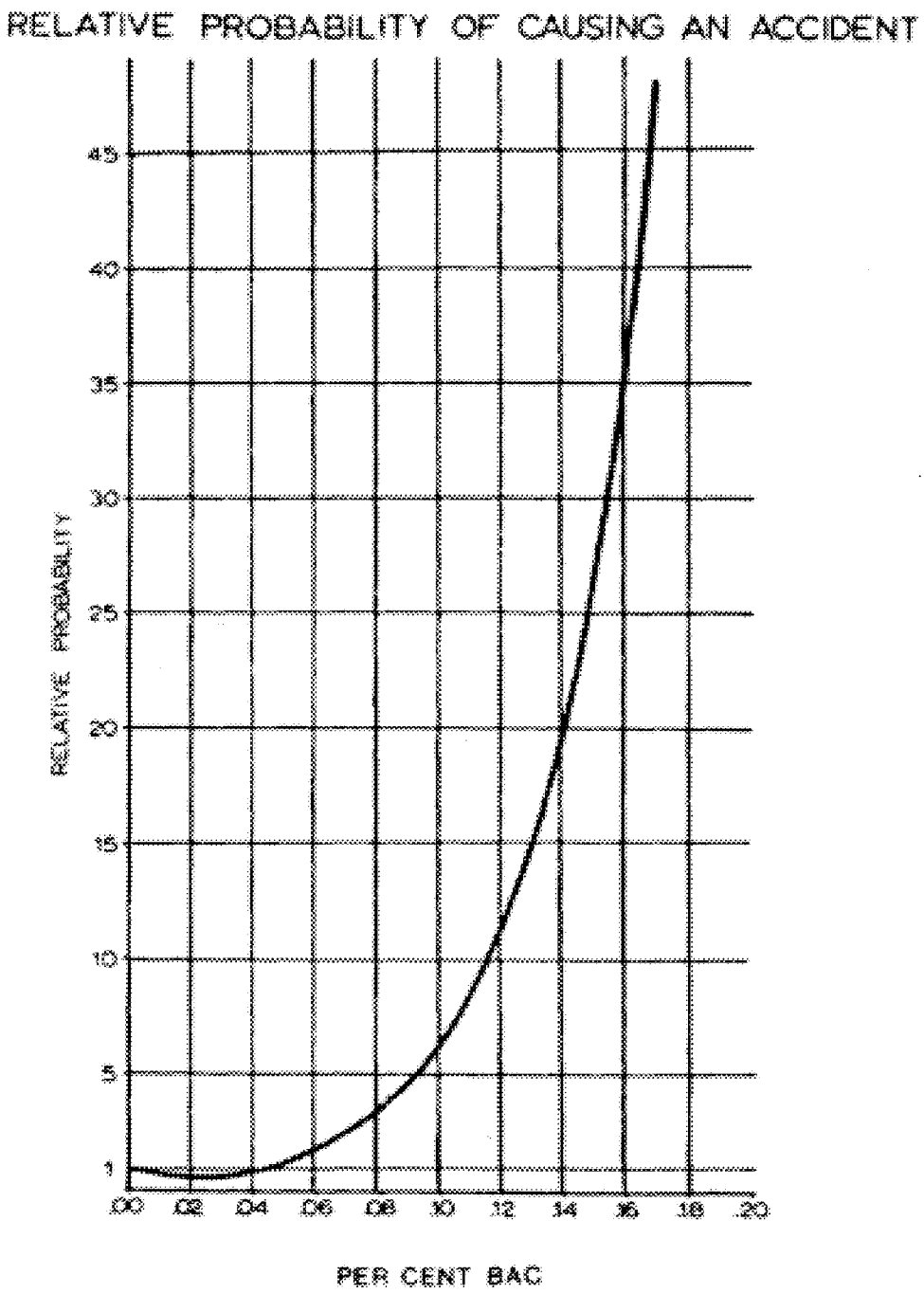
TABLE 2
Stages of Acute Alcoholic Influence and Intoxication
Adapted from work by Dr. Kurt Dubowski

Blood Alcohol Concentration (g's)	Stage of Intoxication	Clinical Signs and Symptoms
.01 to 0.04	Near Sobriety	Behavior nearly normal by ordinary observation. Slight impairment detectable by specialized tests. Subject can feel effects of alcohol
0.03 to 0.12	Euphoria	Mild euphoria and sense of well being. Increased sociability and talkativeness. Increased self-confidence and decreased inhibitions. Decreases in attention, judgment and reaction time. Onset of muscular incoordination
0.09 to 0.20	Excitement	Emotional instability and decreased inhibitions. Loss of critical thinking and judgment. Marked generalized muscular incoordination and slurred speech.
0.18 to 0.30	Confusion	Disorientation and mental confusion. Exaggerated emotional states (e.g. fear, anger, joy, etc.). Gross muscular incoordination, slurred speech and staggering gait.
0.27 to 0.40	Stupor	Apathy, general inertia and a marked decrease in response to stimuli. Inability to stand or walk. Vomiting. Stuporous or unconscious.
0.30 to 0.40	Coma	Complete unconsciousness or coma. Depressed reflexes. May experience respiratory or cardiac difficulties.
0.40 or greater	Death	Death possible due to respiratory or cardiac arrest or choking due to aspirated vomit.

TABLE 3

Alcohol and Crash Risk

Grand Rapids Study 1962



Appendix A

Rules
of the
Georgia Bureau of Investigation

Chapter 92-3
Implied Consent

Rev. January 23, 2013

RULES OF THE GEORGIA BUREAU OF INVESTIGATION

CHAPTER 92-3
IMPLIED CONSENT

TABLE OF CONTENTS

92-3-.01 Application; Information.

(1) This chapter applies to chemical analysis of a person's blood, breath or urine for the purpose of determining whether such person is under the influence of alcohol or drugs where such tests are required or authorized under the laws of this state. It does not apply to analysis of breath, blood or other bodily substances for other purposes, including, but not limited to, those:

(a) Performed in conjunction with a postmortem examination;
(b) Conducted by personnel employed by the Division of Forensic Sciences or by personnel employed by an agency of the United States;
(c) Performed pursuant to a court order;
(d) Performed as a condition of probation, parole or pretrial release;
(e) Performed for the purpose of determining paternity;
(f) For initial breath alcohol screening;(except where explicitly addressed)
(g) For the purpose of preliminary testing for alcohol or drugs by law enforcement before submission of samples to a laboratory for confirmatory testing;
(h) For DNA analysis; or
(i) For the purpose of medical diagnosis or treatment.

(2) Requests concerning the rules or laws administered by the Georgia Bureau of Investigation, Division of Forensic Sciences relative to the methods approved for breath, blood or urine analysis, pursuant to this Chapter, shall be made in writing to the Director, Division of Forensic Sciences of the Georgia Bureau of Investigation.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Information" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Aug. 31, 1998; eff. Sept. 20, 1998. **Amended:** Rule retitled "Application; Information". F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010.

92-3-.02 Qualifications. Amended.

(1) Pursuant to this chapter applicants for a permit to perform chemical analysis of a person's blood for alcohol content and report the results of such analysis as delineated in O.C.G.A. § 40-6-392 shall meet the following requirements:

(a) Be employed by an entity that is accredited in the area of forensic blood alcohol analysis by a nationally recognized accrediting body;
(b) Have never been convicted of a crime involving moral turpitude;
(c) Have completed a baccalaureate or advanced degree in chemistry, toxicology, medicine, pharmacology, or forensic science, including a minimum of 40 semester hours of chemistry related coursework;
(d) Have completed a documented training program in the area of blood alcohol analysis that includes the following elements:
1. Theory of alcohol pharmacology and pharmacokinetics;
2. Principles and theory of analytical techniques for blood alcohol analysis, e.g., head space gas chromatography and/or enzymatic methods;
3. Analysis of samples with known blood alcohol content using gas chromatography, enzymatic methods, or other generally accepted techniques;
4. Successful completion of proficiency test samples from the National Highway Transportation Safety Administration (NHTSA) and/or proficiency test samples from a test provider approved by the entity's accrediting authority described in 92-3.02(1)(a).
(e) Be an active participant in an ongoing external proficiency testing program.

(2) Applicants for a permit to perform chemical analysis of a person's breath pursuant to this Chapter shall meet the

following requirements:

(a) be a citizen of the United States;
(b) be a resident of the State of Georgia or be employed within the State of Georgia;
(c) have never been convicted of a crime involving moral turpitude;
(d) be over twenty years of age;
(e) certified satisfactory completion of a course in breath analysis conducted under the auspices of the Division of Forensic Sciences.

(3) All peace officers qualified to make arrests on the highways or streets of this State shall be deemed, and are hereby declared, qualified to administer the screening test for alcohol in the breath. Screening tests are not intended to be a quantitative measure of the specific amount of alcohol in a person's breath, but a presumptive test for the presence or absence of alcohol. A list of approved breath alcohol screening devices will be maintained by the Division of Forensic Sciences.

(4) Pursuant to this chapter, applicants for a permit to perform chemical analysis of a person's blood or urine for drugs and report the results of such analysis as delineated in O.C.G.A. § 40-6-392 shall meet the following requirements:

(a) Be employed by an entity that is accredited in the area of toxicology analysis by a nationally recognized accrediting body;
(b) Have never been convicted of a crime involving moral turpitude;
(c) Have completed a baccalaureate or advanced degree in chemistry, toxicology, medicine, pharmacology, or forensic science, including a minimum of 40 semester hours of chemistry related coursework;
(d) Have completed a training program in the area of drug analysis from biological samples that includes the following elements:
1. Theory of drug pharmacology and pharmacokinetics;
2. Principles and theory of analytical techniques for drug analysis, including presumptive (e.g., immunoassay) and confirmatory techniques (e.g., gas chromatography/ mass spectrometry, liquid chromatography/ mass spectrometry/mass spectrometry);
3. Analysis of samples with known drug content using presumptive and confirmatory methods,
4. Successful completion of proficiency test samples from a test provider approved by the accrediting authority described in 92-3.02(4)(a). .
(e) Be an active participant in an ongoing external proficiency testing program.

(5) Applicants to perform, under supervision, chemical testing of a person's blood or urine for alcohol shall meet the following requirements:

(a) Be under the direct supervision of a person who possesses a valid permit to perform chemical tests as described in 92-3.02(1) and who is responsible for reviewing and reporting the results of all chemical tests performed by the applicant;
(b) Be a duly licensed registered nurse, certified medical technologist, or trained laboratory technician;
(c) Have completed a training program in the area of blood alcohol analysis that includes the following elements:
1. Principles and theory of analytical techniques for blood alcohol analysis, e.g., head space gas chromatography and/or enzymatic methods;
2. Analysis of samples with known blood alcohol content using gas chromatography, enzymatic methods, or other generally accepted techniques;
3. Successful completion of proficiency test samples provided by the National Highway Transportation Safety Administration (NHTSA) and/or proficiency test samples from a test provider approved by the entity's accrediting authority described in 92-3.02(1)(a).
(d) Be an active participant in an ongoing external proficiency testing program.

(6) Applicants to perform, under supervision, chemical testing of a person's blood or urine for drugs shall meet the following requirements:

(a) Be under the direct supervision of a person who possesses a valid permit to perform chemical tests as described in 92-3.02(4) and who is responsible for reviewing and reporting the results of all chemical tests performed by the applicant;
(b) Be a duly licensed registered nurse, certified medical technologist, or trained laboratory technician;
(c) Have completed a training program in the area of drug analysis from biological samples that includes the following elements:
1. Principles and theory of analytical techniques for drug analysis, including presumptive (e.g., immunoassay) and confirmatory techniques (e.g., gas chromatography/ mass spectrometry, liquid chromatography/ mass spectrometry/mass spectrometry);
2. Analysis of samples with known drug content using presumptive and confirmatory methods;

3. Successful completion of proficiency test samples provided by a recognized test provider approved by the entity's accrediting authority described in 92-3.02(4)(a). .

(d) Be an active participant in ongoing external proficiency testing program.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Qualifications" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Aug. 9, 1988; eff. Aug. 29, 1988. **Amended:** F. Nov. 18, 1995; eff. Dec. 8, 1995. **Amended:** F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010.

92-3-.03 Application, Form of. Amended.

(1) Applications for permits to perform chemical analyses of a person's blood or breath pursuant to this Chapter shall be on a form prescribed and approved by the Georgia Bureau of Investigation and shall be submitted to the Division of Forensic Sciences, Implied Consent Section.

(2) Each applicant shall provide as a minimum the following data:

(a) the name of the individual seeking the permit;

(b) the email address, telephone number, fax number and mailing address of the individual seeking the permit;

(c) the name and mailing address of the applicant's employer, or if self-employed, the name and mailing address under and by which the applicant transacts business;

(d) place and date of the applicant's birth;

(e) the resident address of the applicant;

(f) responses to all questions or requests for information in the application;

(g) date of the application.

(3) Where the application is for a permit to perform chemical analyses of a person's blood or urine, the applicant shall provide the documentation necessary to demonstrate that the applicant has met all applicable qualifications.

(4) Where the application is for a permit to perform chemical analyses of a person's blood or urine the applicant shall identify the specific methods and techniques to be employed in the performance of the analyses.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Application, Form of" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. June 10, 1987; eff. June 30, 1987. **Amended:** F. Nov. 18, 1995; eff. Dec. 8, 1995. **Amended:** F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010.

92-3-.04 Permits. Amended.

(1) Permits to perform chemical analyses of a person's blood, urine, or breath pursuant to this Chapter will be issued by the Georgia Bureau of Investigation, Division of Forensic Sciences, Implied Consent Section.

(2) The Georgia Bureau of Investigation, Division of Forensic Sciences shall withhold the issuance of a permit where the application reveals information that the applicant has not or cannot qualify pursuant to Rule 92-3-.02.

(3) Separate and distinct permits shall be issued for:

(a) analysis and reporting of blood alcohol levels

(b) testing and reporting breath alcohol levels;

(c) analysis and reporting of drugs in blood and/or urine

(d) analysis of blood alcohol under supervision

(e) analysis of drugs in blood and/or urine under supervision.

(4) All permits are subject to revocation as provided by law and Rule 92-3-.08.

(5) Applications for all permits shall be filed with the Division of Forensic Sciences Implied Consent Section. Permits shall be valid for not more than four years from the date of issuance. Proof of successful completion of annual proficiency tests shall be required to maintain all permits for testing blood or urine for alcohol or drugs.

(6) Permit renewals to perform chemical analyses on a person's breath shall not be approved unless one refresher course in breath alcohol analysis conducted under the auspices of the Division of Forensic Sciences has been satisfactorily completed. Individuals possessing permits that are more than one year past the expiration date will not be allowed to renew their permits by attending a refresher course unless specifically authorized by the Director of the Division of Forensic Sciences or his or her designee. Additional refresher courses may be required at the discretion of the Director of the Division of Forensic Sciences.

(7) Existing permit holders may obtain a permit to operate instruments approved pursuant to this rule by the Division of Forensic Sciences for the chemical analysis of a person's breath by successfully completing a transition course in

breath alcohol analysis under the auspices of the Division of Forensic Sciences.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Permits" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Nov. 18, 1995; eff. Dec. 8, 1995. **Amended:** F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010. **Amended:** F. Jan. 3, 2013; eff. Jan. 23, 2013.

92-3-.05

Permits issued by the Division of Forensic Sciences authorizing individuals to perform chemical analyses of a person's blood, urine, or breath pursuant to this Chapter shall be in a form approved by the Division of Forensic Sciences. Permits will indicate the individual approved to perform analysis, an issue and expiration date, and the type of analysis approved to perform, i.e., breath alcohol, blood alcohol, or blood and urine drug testing. In addition the permit will clearly indicate whether testing must be performed under supervision. In the case of breath analysis the type of instrument approved for use will also be indicated.

(a) Form deleted.
(b) Form deleted.
(c) Form deleted.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Forms of Permit" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010.

92-3-.06 Techniques and Methods. Amended.

(1) Reserved

(2) All chemical tests on blood and/or urine not performed by Georgia Bureau of Investigation personnel must be performed on instruments approved by the Director of the Division of Forensic Sciences. Requests for approval of instruments to perform chemical testing of blood and urine along with proposed maintenance guidelines will be submitted to the Director of the Division of Forensic Sciences or his or her designee. Approval of such request is at his or her discretion pursuant to O.C.G.A. § 40-6-392. Upon approval of any testing instrument for the analysis of blood and/or urine a certificate of approval shall be issued detailing the agency, the date approved, the instrument serial number, and the date of the approval expiration. Such certificate shall be self authenticating and evidence that the instrument was approved by the Division of Forensic Sciences as required by O.C.G.A. § 40-6-392. Such approval shall not apply when any substantial modification to the instrument's original design has been made such that it no longer has all its parts attached and in working order as prescribed by the manufacturer or when the instrument is not in substantial compliance with the maintenance guidelines submitted. Failure to maintain testing instruments as stated in the guidelines for instrument maintenance may be considered grounds for revocation of the certificate of approval. Factors evaluated in the approval of maintenance guidelines for testing instruments shall include but are not limited to:

(a) Documentation of substantial compliance with the manufacturer's recommendations for maintenance;
(b) Documentation of all maintenance performed including the date, action taken, the individual performing the maintenance, and the results of the maintenance including acceptable performance of known quality control samples following such maintenance;
(c) Documentation that instrument maintenance is performed by individuals sufficiently trained to perform instrument maintenance;
(d) Documentation that the instrument has all its parts attached and in good working order as prescribed by the manufacturer;
(e) Documentation that the instrument is suitable for the purpose for which it is being used;
(f) Documentation of quality control measures to ensure reliable analysis such as positive and negative controls;
(g) Documentation that the instrument exhibits the sensitivity, resolution, and specificity necessary for its intended purpose and is evaluated for suitability prior to use.

(3) Types of instruments considered for confirmatory testing of blood or urine for drug content include gas chromatography mass spectrometry, gas chromatography tandem mass spectrometry, liquid chromatography mass spectrometry, liquid chromatography tandem mass spectrometry, or other comparable structural elucidation technique as determined by the Director of the Division of Forensic Sciences or his or her designee.

(4) Types of instruments considered for testing of blood for alcohol content include head space gas chromatograph, fluorescence polarization immunoassay, cloned enzyme donor immunoassay, enzyme immunoassay, or other comparable technique as determined by the Director of the Division of Forensic Sciences or his or her designee.

(5) Breath tests other than the original alcohol-screening test shall be conducted on a breath alcohol analyzer approved by the Director of the Division of Forensic Sciences or his or her designee. Any other type of breath alcohol analyzer

not specifically listed in this paragraph must be approved by the Director of the Division of Forensic Sciences or designee prior to its use in the State.

(a) The Intoxilyzer Model 5000 manufactured by CMI, Inc. is an approved instrument for breath alcohol tests conducted on or before December 31, 2015;

(b) The Intoxilyzer Model 9000 manufactured by CMI, Inc. is an approved instrument for breath alcohol tests conducted on or after January 1, 2013;

(6) All breath tests other than the original alcohol-screening test will be performed in accordance with Rule 92-3-.02(2) of these regulations. The operator's permit will be conspicuously displayed in the room and in the immediate vicinity of the place where the test is conducted, or the operator will have on his or her person or immediate possession for display upon request a valid permit in accordance with Rule 92-3-.02(2).

(7) All blood and urine drug tests will be performed by the Georgia Bureau of Investigation, Division of Forensic Sciences or by entities specifically approved by the Director of the Division of Sciences for this purpose. All entities approved by the Division of Forensic Sciences to perform chemical analyses of blood and urine for drugs shall be accredited by a nationally recognized accrediting body. A list of all entities approved for the purpose of conducting chemical tests for drugs will be kept on file at the Georgia Bureau of Investigation to be made available upon request. Approval of entities to perform chemical tests of blood or urine for drugs shall be at the discretion of the Director of the Division of Forensic Sciences or his or her designee. Such approval shall not apply when any substantial change to the method submitted has been made or when any person executing such method fails to substantially comply with the method as written when submitted for approval. Entities requesting approval to perform chemical tests of blood and/or urine for drugs must submit all methods used for chemical testing under O.C.G.A. § 40-6-392 as well as accompanying calibration procedures and validation documents. All blood and urine drug testing methods submitted to the Division of Forensic Sciences for approval shall be evaluated for the following:

(a) Whether the method is suitable for the purpose for which it was submitted;

(b) Whether the method employs a minimum of two analytical techniques for positive identification of an analyte where at least one of the techniques is structurally elucidating (e.g., gas chromatography/ mass spectrometry, liquid chromatography/ mass spectrometry or liquid chromatography/ mass spectrometry/mass spectrometry);

(c) Whether the method includes quality control measures to ensure reliable analysis such as positive and negative controls;

(d) Whether the method's accuracy and measurement uncertainty for quantification meet acceptance criteria as determined by the Director of the Division of Forensic Sciences or his or her designee. These acceptance criteria are based on minimum acceptability requirements set forth for the Division of Forensic Sciences and will be made available to the applicant agency on request;

(e) Whether the method's working range for quantification includes the relevant pharmacological concentrations for the analytes of interest;

(f) Whether the method is specific for the analytes of interest;

(g) Whether the method complies with a nationally recognized quality control standard such as ISO/IEC 17025.

(8) The Director, Division of Forensic Sciences:

(a) will cause each instrument used in the administration of breath tests to be checked periodically for calibration and operation and a record of the results of all such checks maintained;

(b) at his discretion may cause any operator administering breath tests to be checked for operating proficiency. Unsatisfactory operation proficiency checks shall be one of several criteria for permit revocation.

(9) All blood and/or urine alcohol tests will be performed in accordance with a quantitative Gas Chromatographic technique or any equivalent procedure comparable in accuracy to Gas Chromatography. Any method used by an entity other than the Division of Forensic Sciences will be evaluated for approval by the Director of the Division of Forensic Sciences or his or her designee and such approval shall be at his or her discretion. Upon approval of any testing method a certificate of approval shall be issued detailing the agency, the date approved, and the date of the approval expiration. Such certificate shall be self authenticating and evidence that the method submitted was approved by the Division of Forensic Sciences as required by law. Such approval shall not apply when any substantial change to the method submitted has been made or when any person executing such method fails to substantially comply with the method as written when submitted for approval. Entities requesting approval to perform blood and/or urine alcohol tests must submit all methods used for testing under O.C.G.A. § 40- 6-392 as well as accompanying calibration procedures and validation documents. Factors evaluated in the approval of testing methods by outside agencies shall include:

(a) Whether the method is generally accepted in the scientific community for the purpose for which it is being submitted;

(b) Whether the method employs replicate analysis;

(c) Whether the method includes quality control measures to ensure reliable analysis such as positive and negative controls;

(d) Whether the method's accuracy and measurement uncertainty for quantification meet acceptance criteria as determined by the Director of the Division of Forensic Sciences or his or her designee. These acceptance criteria are based on minimum acceptability requirements set forth for the Division of Forensic Sciences and will be made available to the applicant agency on request;
(e) Whether the method's working range for quantification includes all alcohol levels between 0.02 and 0.40 g/dL of blood or equivalent;
(f) Whether the method is specific for ethanol;
(g) Whether the method complies with a nationally recognized quality control standard such as ISO/IEC 17025.

(10) The Director of the Division of Forensic Sciences, at his discretion, may require any person authorized to perform chemical tests and/or report results of such testing of blood or urine to divide a specimen and after analysis submit it to the Director, with his report of the specimen. Alternatively, the Director may submit a sample of known alcohol or drug content to any person holding a permit to analyze blood or urine or require them to participate in an external proficiency testing program of his or her choice at his or her discretion. The failure to submit a sample or to satisfactorily analyze a specimen on request will be one of several criteria for revocation of a permit.

(11)Except as forbidden by law, a report of every evidential breath test, excluding initial alcohol-screening tests, shall be made by the individual authorized to issue such reports.

(12)(a) The methods approved by the Division of Forensic Sciences for conducting an evidential breath alcohol analysis shall consist of the following:
(1) the analysis shall be conducted on an approved instrument as defined in 92-3-.06 (5).
(2) the analysis shall be performed by an individual holding a valid permit, in accordance with Rule 92-3-.02 (2); and
(3) the testing instrument shall have been checked periodically for calibration and operation, in accordance with Rule 92-3-.06 (8)(a);
(b) Administrative, procedural, and/or clerical steps performed in conducting a test shall not constitute a part of the approved method of analysis.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Techniques and Methods" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Sept. 19, 1994; eff. Oct. 9, 1994. **Amended:** F. Nov. 9, 1994; eff. Nov. 29, 1994. **Amended:** F. Nov. 18, 1995; eff. Dec. 8, 1995. **Amended:** F. Nov. 12, 1997; eff. Dec. 2, 1997. **Amended:** F. Feb. 24, 2000; eff. Mar. 15, 2000. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010. **Amended:** F. Jan. 3, 2013; eff. Jan. 23, 2013.

92-3-.07 Fees and Billing. Amended.

The fee charged for the withdrawal of a person's blood pursuant to the O.C.G.A. 40-5-55 and 40-6-392 shall not exceed the reasonable and customary charges for such service in the local medical community. All statements for such services shall be submitted to and paid by the jurisdiction (municipal corporation or political subdivision) in which the arrest or accident giving rise to such a procedure occurred.

Authority O.C.G.A. Sec. 40-6-392, 27-3-7, 52-7-12, 6-2-5.1, 35-3-154(1). **History.** Original Rule entitled "Fees and Billing" was filed on April 11, 1986; effective May 1, 1986. **Amended:** F. May 27, 1993; eff. Jun. 16, 1993. Amended; F. February 24,2000; eff. March 15,2000.

92-3-.08 Revocation of Permit.

(1) The violation of any of the rules and regulations of the Georgia Bureau of Investigation promulgated under the provisions of the Uniform Rules of the Road by a permit holder shall constitute ground upon which the Director of the Division of Forensic Sciences may revoke such permit.

(2) If the Director of the Division of Forensic Sciences receives a complaint or has reason to believe that a permit holder is violating any provision of the rules and regulations, he shall notify such permit holder that a hearing will be held at a place and time designated by the Director to determine if the alleged infraction has occurred.

(3) The hearing shall be conducted by the Director of the Division of Forensic Sciences or by someone he shall designate.

(4) Upon revocation of a permit, the Director of the Division of Forensic Sciences or designee shall notify the permit holder, the permit holder's immediate supervisor and the Court(s) of the county or city where the permit holder is employed and in which the results of any tests performed by the permit holder could have been introduced as evidence.

Authority O.C.G.A. Secs. 6-2-5.1, 27-3-7, 35-3-154, 40-6-392, 52-7-12. **History.** Original Rule entitled "Revocation of Permit" adopted. F. Apr. 11, 1986; eff. May 1, 1986. **Amended:** F. Mar. 26, 2010; eff. Apr. 15, 2010.

GEORGIA BUREAU OF INVESTIGATION

3121 Panthersville Road
P.O. Box 370808
Decatur, Georgia 30037-0808

Vernon M. Keenan
Director

Appendix B

August 1, 2004

To All Breath Testing Agencies:

1.) Official Code of Georgia Annotated requires the chemical analysis of a person's blood, urine, **breath** or other bodily substance to be considered valid shall have been performed according to methods approved by the Division of Forensic Sciences and by an individual possessing a valid permit issued by the Division of Forensic Sciences. Pursuant to these requirements Georgia Bureau of Investigation (GBI) Rules 92-3 Implied Consent have been promulgated.

2.) The method of determination of alcohol concentration by breath alcohol analysis is approved as a satisfactory method when the analysis is performed on an instrument brand by an individual possessing a valid permit issued for that instrument. GBI Rule 92-3-.06 (12).

3.) The breath - testing instrument brand approved for use in the State of Georgia is the Intoxilyzer, Model 5000. Permits will be issued to individuals to conduct analyses on this approved instrument.

4.) The instrument in paragraph 3 is approved by GBI Rule 92-3-.06(5).

5.) Each instrument is certified for accuracy when installed in an agency. Each instrument's operation and accuracy will be checked periodically by personnel assigned to the Implied Consent Section of the Division of Forensic Sciences in accordance with GBI Rule 92-3-.06 (8).

I do swear and affirm that this is a true and accurate copy of the original which is maintained in the Division of Forensic Sciences under my custody.

Christopher S. Tilson, B.S.
Manager, Implied Consent
Division of Forensic Sciences

Sworn to and subscribed before
Me this 11 day of August
2004.

Rosemary Smith
Notary Public

My commission expires August 21, 2007

Division of Forensic Sciences
P.O. Box 370808
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Investigative Division
P.O. Box 370808
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Georgia Crime Information Center
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Vernon M. Keenan
Director

Appendix C

Intoxilyzer™ 5000 Testing Procedures Overview

All breath tests will be preceded by a twenty (20) minute waiting period. During this waiting period the subject must be in a controlled environment and be prohibited from consuming any material that contains or might contain alcohol. Should the subject vomit during the waiting period, this should be noted. Allow the subject to recover, then have the subject rinse their mouth with water and restart the twenty (20) minute waiting period. The twenty (20) minute waiting period will be satisfied when the above conditions are met.

Each breath test consists of two breath samples. Each breath sample must be one continuous exhalation. The normal time required for an adequate breath sample is 4 - 8 seconds with the "tone" sounding continuously during the exhalation. For each sample the subject has three minutes to provide a breath sample. The subject should blow into the breathline only when the instrument flashes "PLEASE BLOW/R".

Insert the mouthpiece into the breathline securely. A new mouthpiece will be used for each breath sample.

All breath sample results are displayed and printed to three (3) decimal places. A breath test is acceptable when the two breath sample test results do not vary by more than 0.020 grams. If the tests are not within the limits of acceptable variance the instrument will print a message telling the operator to retest the subject

Record each breath test result, to three decimal places, in the GBI-DOFS Intoxilyzer™ 5000 Log Sheet.

Display messages and action to be taken

"INVALID TEST"	Repeat test
'INVALID SAMPLE"	Wait twenty minutes and retest
"INHIBIT RFI"	Locate radio source and remove. Retest subject
"INSUFFICIENT SAMPLE"	Reinstruct subject and retest
"INTERFERENT"	Obtain blood and urine sample
"AMBIENT FAIL"	Clear room of interferent and retest

Operators will sign the evidence card on the appropriate line.

GEORGIA BUREAU OF INVESTIGATION

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Vernon M. Keenan
Director

Appendix D

August 1, 2004

To: **All Breath Testing Agencies**

From: **Christopher S. Tilson**
Manager, Implied Consent
Division of Forensic Sciences

Rules of the Georgia Bureau of Investigation (GBI), Chapter 92-3-.06 (8a) require a periodic check be made of each instrument performing breath alcohol tests to assure proper calibration of every breath testing device. These Rules are by authority given the GBI Division of Forensic Sciences in the Official Code of Georgia Annotated.

Presently, all Intoxilyzer 5000 instruments are checked quarterly by personnel assigned to the Implied Consent Section of the Division of Forensic Sciences. This quarterly check will assure compliance with the GBI Rules cited.

Each breath testing Agency will maintain records of the quarterly checks performed on their instrument(s). In addition, a permanent written log of each breath test performed will be maintained.

Appendix E

Georgia Bureau of Investigation
Division of Forensic Sciences

Certificate of Inspection

This breath-testing instrument, _____, was thoroughly inspected, tested, and standardized by the undersigned on _____ and all of its electronic and operating components prescribed by its manufacturer are properly attached and are in good working order.

Sworn to and subscribed before
me this _____ day of _____
_____.

_____
Notary Public

_____
Implied Consent Area Supervisor

GEORGIA BUREAU OF INVESTIGATION

3121 Panthersville Road
P.O. Box 370808
Decatur, Georgia 30037-0808

Vernon M. Keenan
Director

December 1, 2008

To: All Breath - Testing Agencies

1.) The Implied Consent Section of the Georgia Bureau of Investigation Division of Forensic Sciences approves alcohol screening devices for use as an investigative tool. These devices are approved for law enforcement personnel to use for the preliminary determination of alcohol concentration.

2.) The following devices are approved by the Division of Forensic Sciences for performing alcohol screening tests: the Alcolyzer manufactured by Intoximeter, Inc.; the Alco-Sensor, Alco-Sensor II, Alco-Sensor III and RBT utilizing the Alco-Sensor III, Alco-Sensor IV and the Alco-Sensor FST manufactured by Intoximeter, Inc.; the A.L.E.R.T. system manufactured by Alcohol Countermeasure System, Inc.; the CMI Model SD-2 manufactured by Lion; the CMI Model SD-5, Intoxilyzer Model 300 and Model 400 manufactured by CMI, Inc.; the Lifeloc Model FC10, FC10 Plus, and FC20 Alcohol Analyzer manufactured by Lifeloc Technologies, and the Alcotest 6510 and 6810 manufactured by Draeger Safety Inc.

3.) The above devices have been evaluated and have been found suitable for use as alcohol screening devices.

LUANNE C. DUNCAN NOTARY PUBLIC ROCKDALE COUNTY, GEORGIA MY COMMISSION EXPIRES MAY 21, 2011

I do swear and affirm that this is a true and accurate copy of the original, which is maintained in the Division of Forensic Sciences under my custody.

Christopher S. Tilson, B.S.
Manager, Implied Consent
Division of Forensic Sciences

Sworn to and subscribed
before me this the 17 day
of December, 2009.

LuAnne C. Duncan
Notary Public
My commission expires 5/21, 2011.

Division of Forensic Sciences
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Appendix H

Recent Court Decisions Effecting DUI/ Implied Consent Law

Miranda and Implied Consent

237 Ga. App. 362; Scanlon v. State

Miranda not required prior to reading Implied Consent notice to subject in custody. Does not violate the constitutional right of due process and privilege against self incrimination. Also See 236 Ga. App. 868; State v. Lord & State v. Rosier and243 Ga. App. 232; State V. Coe, 237 Ga. App. 764; The State v. Moses

269 Ga. 222 (Supreme Court); Price v. State

Miranda warnings must be given before administering field sobriety evaluations on a subject considered **" in custody"**. The test of "in custody" is whether "a reasonable person in the suspect's position would have thought the detention would not be temporary".

245 Ga. App. 466; Arce v. State

The court held "The officer did not have to administer *Miranda* warning to defendant before administering the field sobriety tests during a routine roadside questioning, because defendant was not under formal arrest but exhibited many physical manifestations of intoxication amounting to probable cause to arrest."

Intoxilyzer 5000 and Refusals

237 Ga. App. 236; Komala v. State

Unless encumbered by a physical or medical limitation, a person submitting to the breathalyzer test may be considered to have refused to comply if an adequate breath sample has not been provided. "…the arresting officer testified unequivocally that (Komala) failed… to provide an adequate breath sample and that the instrument did not produce a printed alcohol concentration analysis, which was objective evidence of (her) refusal."

236 Ga. App. 632; Miles v. State

" A defendant's refusal to permit a chemical analysis to be made of his blood, breath, urine, or other bodily substance at the time of his arrest is admissible in evidence against him in any criminal trial." …silence in the face of a request to take such a test shall not be treated differently than a refusal.

246 Ga. App 423; Chamberlain v. State

After being read her Implied Consent rights, Chamberlain submitted to a breath test and on the first sample produced an adequate sample with a printed result. She failed to provide an adequate breath on the second sample and stated because of a respiratory infection could not blow sufficiently. Chamberlain then requested an independent blood test due to her inability to produce a second sufficient breath sample. The Appeals Court ruled the statute expressly provides that a refusal to give a subsequent sample shall not affect the admissibility of the results of any prior sample. The fact that Chamberlain **failed or refused** to provide a second sample, as requested by the State, did not affect the admissibility of the results of the first sample. But the State's test results were rendered inadmissible when Chamberlain was denied the right of an independent

test without justification. After providing a breath sample sufficient to cause the breath-testing instrument to produce a printed alcohol concentration analysis on the state-administered breath test, Chamberlain was entitled to the blood test she requested. The unjustified failure to provide the test is a violation of the statute and precludes the State from introducing evidence regarding its test.

2008 Ga App Lexis 696 Thrasher v State A08A0538

It would make little sense to hold that the result of the first test was inadmissible due to the defendant's inability to immediately give a second breath sample when a complete refusal or failure to take a second test does not affect the admissibility of the results of the first sample.

266 Ga App 762 Collier v. State S04G1409

A suspect refusing to submit to a chemical test under the Implied Consent statute was coerced to provide a sample and thus the results of the test were suppressed. The police threatened the suspect by saying they would obtain a warrant and forcibly draw blood if the suspect did not comply with the Implied Consent request. The Implied Consent statute grants the suspect an opportunity to refuse to take a blood alcohol test. (Note: OCGA 40-5-67.1 was amended in 2006 to read "(d.1) Nothing in this Code section shall be deemed to preclude the acquisition or admission of evidence of a violation of Code Section 40-6-391 if obtained by voluntary consent or a search warrant as authorized by the Constitution or laws of this state or the United States.")

2009 Ga App Lexis 26 State v Quezada A08A1803

The court ruled that simply asking someone a second time if they wanted to submit to a chemical test was not equivalent to coercion. "A police officer may attempt to persuade a suspect to rescind her initial refusal to submit to chemical testing, so as long as any procedure utilized by an officer in attempting to persuade a defendant to rescind his refusal is fair and reasonable." Note that simply telling the subject to blow into the instrument after a refusal was not considered "fair and reasonable." (See Howell v State)

266 Ga App 480 Howell v. State

After refusing to undergo chemical testing pursuant to an implied consent reading, Howell was placed in front of an Intoxilyzer 5000 and instructed to comply. The court found that Howell did not voluntarily rescind his refusal and that the state's test should be suppressed. "In order to be effective, a subsequent consent after a refusal must be made: (1) within a very short and reasonable time after the prior first refusal; (2) when the test administered upon the subsequent consent would still be accurate; (3) when the testing equipment is still readily available; (4) when honoring the request would result in no substantial inconvenience or expense to the police and (5) when the individual requesting the test has been in the custody of the arresting officer and under observation for the whole time since arrest." (See DPS v Seay A92A0826)

270 Ga App 301 The State vs. Simmons

The court found no basis to permit the withdrawal of consent to State testing once consent has been given and is an accomplished fact.

270 Ga App 709 Shaheed v. The State

This case vacated a conviction of DUI less safe where the conviction was based upon the refusal of the subject to submit to both the field sobriety evaluations and the chemical test. The appellate court ruled "Shaheed was a less safe driver solely on the smell of alcohol and his refusal to submit to field sobriety tests and chemical testing. Accordingly, because there was nothing from which the jury could have inferred that [Shaheed] was under the influence of [alcohol] to the extent that he was a less safe driver, such as additional evidence of his physical condition or conduct at the time of his arrest, his conviction…must be set aside." While "refusal to submit to chemical testing may be considered as positive evidence creating an inference

that the test would show the presence of alcohol, it also does not create an inference that he had impaired driving ability as a result of drinking alcohol."

A05A1491 Hoffman v. The State.

Refusal to submit to field sobriety tests ... is admissible as circumstantial evidence of intoxication and together with other evidence would support an inference that the suspect was an impaired driver.

286 Ga App 712 Horne v State A07A1563

In this case Horne submitted to field sobriety but refused chemical testing. Horne then challenged the sufficiency of the evidence regarding his DUI conviction. The court ruled to prove impairment, the State may present evidence of three types: "(i) erratic driving behavior, (ii) refusal to take field sobriety tests and the breath or blood test, and (iii) the officer's own observations (such as smelling alcohol and observing strange behavior) and resulting opinion that the alcohol made it less safe for the defendant to drive. (i) Manner of driving. Where there is evidence, as here, that the defendant has been drinking, the manner of his driving may be considered on the question of whether he has been affected by alcohol to the extent that he is less safe to drive. (ii) Refusal to undergo tests. Horne's "refusal to submit to an alco-sensor test and to a later chemical test of [his] breath is circumstantial evidence of [his] guilt." Together with other evidence, such refusals "would support [the] inference that [Horne] was an impaired driver." (iii) Officer's observations and opinion. A police officer may give opinion testimony as to the state of sobriety of a DUI suspect and whether appellant was under the influence to the extent it made him less safe to drive

283 Ga App 814 State v Brookbank A06A2036

Trial court erred in suppressing defendant's refusal to submit to a breath test, as the implied consent notice given was substantially accurate and timely given, and irrespective of whether the refusal resulted from defendant's confusion, it nevertheless remained a refusal. The deputy explained the implied consent law to Brookbank, but Brookbank simply disagreed with the deputy's explanation. The court emphasized that the law does not require the arresting officer to ensure that the driver understands the implied consent notice and the officer was under no duty to give further warnings or instructions after the implied consent warning was given properly at the time of arrest.

286 Ga App 542 Stewart v State A07A0232

Because Detective Doyle read Stewart the implied consent notice in an accurate and timely fashion, that notice was valid irrespective of Stewart's claimed inability to understand it. As a result, even if Stewart's subsequent refusal to provide a breath sample resulted from a failure to comprehend the consequences of his conduct, it is nevertheless admissible against him. As the term "implied consent" indicates, "every driver's consent to a chemical test for intoxication is implied by law." Specifically, everyone who operates a motor vehicle in Georgia implicitly consents to the chemical testing of their bodily fluids in the event they are arrested for DUI, but they may revoke that consent by refusing to submit to such testing. In all cases the court is required to find only that the implied consent law was conveyed to the ... driver. The State is under no duty to prove [that] the ... driver fully understood his rights under [that] law. To hold otherwise, and allow an intoxicated driver's professed inability to understand the implied consent warning to vitiate either the implied consent or the revocation of it, would so undermine OCGA § 40-5-55 (a) as to render it meaningless. Indeed, such a holding would actually benefit most those drivers who pose the greatest threat on the road — i.e., those who are so impaired that, even though conscious, are unable to comprehend their circumstances.

Request for an attorney before submitting to an Implied Consent test

281 Ga 306 Rackoff v State (Ga Supreme)

DUI suspects are not entitled to consult with a lawyer before deciding whether to submit to a breath test under the Sixth Amendment or the Georgia Constitution.

Also see 209 Ga. App. 270; Bowman v. Palmour

244 Ga. App. 123; Fairbanks v. State

The court affirmed Fairbanks' conviction of DUI, holding that his repeated response that he wanted an attorney present each time the arresting officer asked if he would submit to a chemical test amounted to a refusal to submit to testing, authorizing the admission into evidence of his refusal.

253 Ga. App. 412, State v. Boger

The appellate court held that the trial court erred in excluding appellee's failure to submit to the alco-sensor test at the scene of the stop because appellee's refusal could not have been based on a belief that he was entitled to an attorney prior to taking the test. However, the court held that evidence as to the test provided at the police station should be suppressed, as appellee, misled by the police officer, believed that he was entitled to an attorney prior to submitting to such test.

Use of Blood/Urine Samples obtained pursuant to Implied Consent Law

228 Ga. App. 825; The State v. Jewell

Blood and urine samples taken from the suspect pursuant to the Implied Consent Law for the purpose of determining if the defendant is under the influence of alcohol or drugs cannot be used for prosecution of drug possession. "This court held that consent for one purpose does not mean for ANY purpose, and therefore the consent was not the product of an essentially free and unrestrained choice."

Certificates of Inspection Admissibility

224 Ga. App.890; Harmon v. State

The certificates required by OCGA 40-6-392 (f) are not "tests which generally are carried out during the course of the investigation of a crime", and, therefore, the certificates are "not the type of investigation-generated written scientific report subject to the discovery provisions of OCGA 17-7-211." Instead, these inspections are conducted without regard to the investigation of any particular crime or case, but are done to assure the breath-testing instruments are periodically inspected, tested, and standardized, and that all the electronic and operating components are properly attached and are in good working order. Accordingly, the trial court did not err in allowing the certificate of inspection to be introduced even though it was not provided to Harmon before trial.

236 Ga. App. 842; Andries v. State

...the trial court did not err in admitting photocopies of the certificates of inspection in this case. Officer testified that he was familiar with the documents and that he recognized them as photocopies of the original certificate posted next to the Intoxilyzer 5000 on which the defendant was tested. Also see 238 Ga. App. 442; Wright v. State

Operator's Permit

240 Ga. App. 461; Prindle v. State

Given the undisputed evidence that the officer conducting the test was trained to use the machine used here, took a refresher course on its use, and had a certificate that was valid on its face on the date of the test, we find that the state satisfied its burden of proving the officer had a valid permit.

MORE THAN TWO SEQUENTIAL BREATH TESTS

237 Ga. App. 817; Davis v. State

After providing two breath tests with adequate breath samples in which the results exceeded the 0.020 allowed difference. The subject was requested to take a third test which was within the 0.020 limit. The court ruled this test not admissible because OCGA 40-6-392 (a)(1)(B) provides only two tests with adequate breath samples can be requested.

INTOXILYZER 5000 OPERATING PROPERLY

225 Ga. App. 678; Renschen v. State

The state showed that the machine used was certified as being in good working order by the Division of Forensic Sciences of the Georgia Bureau of Investigation. The officer who performed the test on Renschen also testified that the machine was in good working order and was performing properly. This was sufficient to satisfy the statutes' requirements.

237 Ga. App. 875; Lanier v. State

"…the State introduced a certificate of inspection performed before the defendant's test and after the defendant's test showing the machine was operating properly. In addition, the operator testified that the instrument was operating properly at the time he performed the test on the defendant. …an inspection directly before and after each defendant's test is not required."

Intoxilyzer 5000 and *margin of error* (Sampling Variability)

248 Ga. App. 806; Bagwell v. State

The trial court did not err in denying his motion for a directed verdict on the per se charge. The Intoxilyzer's margin of error related to the weight given the test results rather than their admissibility, and the test results were direct evidence of guilt.
Also See 235 Ga. App. 791; Cawthon v. State

DUI Drugs

271 Ga. Supreme 398; Love v. State

The Court reversed appellant's conviction of driving with marijuana in his blood or urine, holding that the statute is an unconstitutional denial of equal protection. The Court held that the distinction between users of legal and illegal marijuana in the statute was arbitrarily drawn and was not directly related to the public safety purpose of the legislation.

272 Ga. Supreme 733; Ayers v. State

The court affirmed the trial court's refusal to dismiss criminal charges against Ayers, and held that the equal protection of law articulated in *Love v. State* does not preclude an indictment which charges reckless driving and first degree vehicular homicide through reckless driving where the reckless driving is based upon consumption of marijuana.

Sandlin v State A10A2197

The court ruled that Sandlin was not required to prove that he was legally entitled to use alprazolam in order to assert an equal protection challenge to 40-6-391 (a)(6) as articulated in Love v State.

248 Ga. App. 474; Keenum v. State

"Legal " cocaine use. Keenum was convicted of driving under the influence of drugs. On appeal, he contended that OCGA 40-6-391(a) (6) had been held unconstitutional by the Supreme Court in *Love v. State.* Affirming, the court held that while there could be instances of legal marijuana use, there would never be an instance of legal cocaine use so as to make the statute an unconstitutional denial of equal protection as to a cocaine intoxication charge.

302 Ga. App 753 Myers v State A10A0106

"DUI is a crime of general not specific intent. The state does not have to prove that the defendant intended to drive under the influence, only that the defendant was in an intoxicated condition and that she intended to drive...Voluntary intoxication is not an excuse for any criminal act."

Qualifications of person drawing blood

272 Ga. Supreme 169; Peek v. State

To be admissible the qualifications of the person drawing the blood must be proven by one of two ways. 1. The State may call as a witness the person who withdrew the blood and have that person testify as to his or her qualifications. (Harden v. State, 210 Ga. App. 673). 2. The State may produce a certification by the office of the Secretary of State or by the Department of Human Resources that a person was qualified to draw blood as required by OCGA 40-6-392.
{Statute was amended in 200l legislation to include the testimony under oath of the blood drawer's supervisor or medical records custodian that the blood drawer was properly trained and authorized to draw blood as an employee of the medical facility or employer.}

Challenge. Implied Consent Notice; OCGA 40-5-67.1; OCGA 40-5-55(a)

272 Ga. Supreme 605; Klink v. State; Watt v. State

The Court held that OCGA 40-5-67.1, that provides for the notice of implied consent to chemical testing, was not unconstitutional.

275 Ga. Supreme 309; Young v. State

The Court denied the motion to suppress the results of the state-administered breath tests based on the alleged unconstitutionality of the implied consent warning provision of OCGA 40-5-67.1. The implied consent warning did not violate the equal protection clause, as discriminating against persons charged with DUI, because it did not inform them that the results of a chemical test can be used against them at trial.

275 Ga. Supreme 283; Rodriguez v. State

The trial court did not err by failing to suppress the results of the state-administered blood alcohol tests because his implied consent warnings were not given to him in Spanish. Neither due process nor equal protection require the implied consent warnings to be given in a language the driver understands. (ref. State v. Tosar; 180 Ga. App.885.)

246 Ga. App. 344; Crawford v. State

The officer read the Implied Consent Notice before formally placing Crawford under arrest. After the rights

were read to Crawford, she agreed to submit to an alcosensor evaluation. The test was positive for alcohol. The officer placed her under arrest and transported her to jail where she agreed to take the state administered breath test. Crawford appeals that the implied consent notice was not read at the time of arrest, and that because the officer read the notice just before asking her to take the alcosensor field test, she was confused and deprived of the right to make an intelligent decision whether she should take the state administered test. The Court held Crawford was not free to leave even before the administration of the alcosensor test, the reading of the notice was done at the "time of arrest" as required by the statute. The Court agreed with Crawford that the implied consent notice should not be read before the administration of the alcosensor test because that may mislead the driver into believing that he or she is required to submit to that test. The Court was not persuaded by Crawford's argument that the timing of the reading was so confusing that she was unable to make an intelligent decision about whether to submit to the state administered test. However, had she refused to take the state administered test, thereby suffering adverse consequences, she would have a better argument that she was confused about whether to submit to the state test.

277 Ga. Supreme 282; Cooper v. State

Cooper was convicted of DUI after submitting to a blood test that was administered because Cooper was involved in a traffic accident resulting in serious injuries. Reversing, the court held that to the extent that OCGA 40-5-55(a) requires chemical testing of a driver involved in an accident resulting in serious injuries or fatalities regardless of **probable cause**, it authorizes **unreasonable searches and seizures** in violation of the Georgia and United States Constitutions.

Hough v. State S05G0311 and Handschuh v. State S06G0640

The state may constitutionally require a suspect who has not yet been arrested to submit to a chemical test of his blood, breath, urine, or other bodily substances where the suspect has been involved in a traffic accident resulting in serious injuries or fatalities (as defined by 40-5-55) and the investigating law enforcement officer has probable cause to believe that the suspect was driving under the influence of alcohol or other drugs... in circumstances where there has been no traffic accident resulting in serious injuries or fatalities but the law enforcement officer has probable cause to believe that the suspect was driving under the influence of alcohol or other drugs, the suspect must be arrested prior to a reading of implied consent.

285 Ga App 18 State v. Austell A062171

Trial court properly granted defendant's motion to suppress the results of a chemical test of his blood based on the undue delay between his arrest, after a traffic stop, and the reading of his implied consent warnings. The Trooper testified that he delayed reading Austell his rights because, with everything that had taken place, he felt that it would be safer for him to get Austell to the jail where it would be lighted, where others would be, rather than just reading Austell his rights on the interstate with only the two of them present. The trooper in this case was forced to subdue Austell due to the fact that he resisted arrest. The court opined that "although we are mindful of the difficulties the Trooper had with Austell, various opportunities existed for him to read Austell his rights before he did, and our law demands that the rights be read "at the time of arrest, or at a time as close in proximity to the instant of arrest as the circumstances of the individual case might warrant."

283 Ga App 872 Dunbar v State A07A0496

Approximately 25 minutes elapsed between the time the officer handcuffed Dunbar and the time the officer read her the implied consent notice. Dunbar argues that the 25-minute delay did not satisfy the requirement in OCGA § 40-6-392 (a) (4) to read the implied consent notice "at the time of arrest." However, the notice is deemed timely if it is given "at a time as close in proximity to the instant of arrest as the circumstances of the individual case might warrant." Here, the officer called a tow truck because he determined that neither occupant of Dunbar's vehicle was fit to drive. He therefore inventoried the vehicle before releasing it to the tow truck. He also evaluated the intoxicated passenger to rule out any safety threats posed by him or potential weapons in Dunbar's vehicle. As the tow truck arrived, and before transporting Dunbar to the

sheriff's office, the officer read Dunbar the notice. In light of the circumstances of this case, we affirm the trial court's ruling that the delay in reading the implied consent notice was warranted.

285 Ga App 640 State v Underwood A07A0576
Because the trial court's finding that defendant was under arrest only for the possession of drug-related items at the time the implied consent notice was read to him, although probable cause existed to arrest him for DUI, its order excluding the results of the state-administered breath test was upheld on appeal.

Independent Blood Test Request

245 Ga. App. 750; Joel v. State

Joel was stopped for DUI in Forsyth County and took the state-administered chemical test at the sheriff's office. He then asked to be taken to Northside Hospital in Atlanta for an independent test. The arresting officer, protesting that it would be "too dangerous for me to take him that far into metro Atlanta," took him to North Fulton Hospital for his blood test. Reversing the trial court's denial of Joel's motion to exclude the results of the state-administered test, the court held that Joel's statutory right to an independent test of his own choosing under OCGA 40-6-392 (a)(3) was violated when he was denied the right to a test at a facility of his choice that was "reasonably close."
Other cases: State v. Hughes; 181 Ga. App. 464, O'Dell v. State; 200 Ga. App. 655, Akin v. State; 193 Ga. App. 194.

254 Ga. App. 807; Hendrix v. State

Request for an additional test outside arresting officer's jurisdiction by 25-30 miles not reasonable considering officer offered to take suspect to **any local hospital** he wanted and that the requested facility would take 1 hour travel time round-trip. Factors considered when determining if a request is reasonable include: (1) availability of or access to funds or resources to pay for the requested test; (2) a protracted delay in giving of the test if the officer complies with the accused's requests; (3) availability of police time and other resources; (4) location of the requested facilities…and (5) opportunity and ability of the accused to make arrangements personally for testing.

255 Ga. App.685; State v. Braunecker

The appeals court affirmed the trial court's suppression of the state administered breath test and held the police denied appellant the opportunity to have an independent blood test. The appellant made the request to the booking officer while being photographed. The request was made 30 minutes after the breath test, the booking officer did not inform or make attempt to contact the arresting officer. (See *Covert v. State;* 196 Ga. App. 679 request made to jailer within hour of breath test resulted in suppression of test result.)

256 Ga. App. 726: Ladow V. State

The court reversed the trial court's admission of the state administered blood test in Ladow's DUI case, holding that her request "I want a blood test." was for an additional, independent blood test and the state's failure to accommodate it foreclosed introduction of the state administered test.

256 Ga. App. 749: State v. Schmidt

When Schmidt was pulled over for erratic driving he refused to submit to a breath test and requested an independent blood test. Once he was at the jail, he consented to the breath test, after having been read his implied consent rights again, but refused to provide a second breath sample. He did not repeat his request for a blood test. Affirming the trial court's suppression of the breath test results, the court held that Schmidt's refusal to provide a second breath sample does not preclude him from his right to an independent test.

263 Ga. App.222; Cole v. State

Cole was arrested for DUI on Memorial Day and requested an independent blood test. The arresting officer took him to the Houston Medical Center emergency room where blood was drawn but the lab was closed for the holiday. The officer testified that he was unaware of any place that would be open to test the blood given the holiday and the time. The officer stated that he did not attempt to contact either of the other two possible facilities he knew of in the area, apparently based on his assumption that they would also be closed. . And the record shows that the officer did not suggest any other testing alternatives, such as calling Cole's personal physician or his lawyer, or submitting the sample to the State's crime lab. Reversing denial of Cole's motion to suppress, the court held that an arresting officer has a duty to make **reasonable efforts** to accommodate a request for an independent blood test and failed to make such efforts here; and did not explore any alternative testing measure after discovering Houston Medical Center was closed. A blood sample is not the same as a legally admissible blood test, regardless of whether the blood sample could conceivably have been later used to obtain an independent test.

221 Ga App 274 Hulsinger v State A96A0631

Once an individual requests an independent test, the officer's concomitant duty to accommodate arises and continues until the accused obtains an admissible test or until it is determined that, despite reasonable efforts, such a test can not be obtained. In Hulsinger v. State, the officer gave Hulsinger a phone and a phone book, and Hulsinger arranged a test at a nearby hospital. After the nurse drew his blood, she told Hulsinger that he would have to contact his lawyer about having it tested. The officer suggested that he contact his lawyer or a doctor, and he offered to store the sample for Hulsinger. The court ruled that, there was some evidence, although slight, that the officer had tried to help solve the problem encountered at the hospital. Furthermore, Hulsinger did not produce evidence that a test could be performed anywhere nearby at that hour.

282 Ga App 63 Whittle v State A06A1134

Whittle was arrested for DUI, took the state's test and requested an independent test. The arresting officer testified that Whittle was unfamiliar with the area and asked the officer to recommend a hospital where a blood test could be obtained. He stated that he recommended Emory Adventist and that Whittle agreed. Whittle, on the other hand, testified that he did not want to have the test performed at Emory Adventist Hospital because he was not familiar with that facility. Whittle claimed that he requested and suggested four other hospitals for his independent test. The officer acknowledged that there was some discussion about testing at Kennestone Hospital, but stated that Kennestone was not a viable option and that he had been advised by the hospital staff that Kennestone and the other Wellstar-affiliated hospitals were no longer performing independent tests on persons who were not being admitted to the hospitals for medical reasons. Whittle failed to provide any evidence to refute the officer's testimony, or to otherwise show that his requested hospitals were available for testing at that time. Here, the trial court found that the officer made a reasonable effort to accommodate Whittle's request for an independent blood test.

274 Ga App 248 Koontz v State A05A0284

Koontz took the state's test and requested and independent test. Although Deputy Williams helped Koontz get money and took him to the hospital, he knew that Koontz could not get his blood tested there at that time, and he took no additional steps whatsoever to assist Koontz. He saw the nurse give Koontz his blood sample, but he then took Koontz back to the jail. He did not suggest any alternatives, call other hospitals, or offer any other assistance. Also, there is nothing in the record to show that Koontz did not have enough money for another attempt, that the officer was pressed for time or otherwise prevented from trying again, that another attempt would be too long delayed, or that the other hospitals were too far away or similarly unavailable. In this case, Deputy Williams helped create the problem that he then failed to help solve. Accordingly, he failed to reasonably accommodate Koontz's request for an independent test. If Williams had told Koontz he could store and test his blood sample later, this might alter our conclusion. But it would require some evidence, possibly in the form of expert testimony, about the circumstances under which a blood sample can be stored and tested later

283 Ga App 284 State v Howard A06A2365

Howard requested an independent test but did not have sufficient cash on hand to pay for the test. Howard then requested that a relative be allowed to go to the facility to pay for the test in advance. The officer denied Howard's request citing safety concerns. The court ruled that Howard was not allowed even to attempt to obtain the needed funds, nor did the officer provide any assistance other than offering to go by an ATM. As the trial court pointed out, where security is of concern, relatives could have been asked to come to a secure location, such as the jail, in order to provide Howard with the necessary funds. No evidence indicated that such arrangements would have caused extended delays, nor that the police officer lacked time or resources to make such an accommodation. Vague security concerns, unsupported by any specific evidence, do not provide sufficient grounds to deny an accused's request for an independent test by personnel of his own choosing. "While it is not the officer's duty to insure the performance of an independent test, he cannot prevent a defendant from exercising his right to such a test." The officer rebuffed every suggestion made by Howard and his response was not a "reasonable effort to accommodate" Howard's request for an independent blood test. This had the effect of denying Howard his right to such a test under OCGA 40-6-392.

Procedural Issues

266 Ga App 595 State v. Palmaka

Clarifies the qualifications for an admissible breath test according to GBI rules. Emphasizes that "administrative, procedural, and/or clerical steps performed in conducting a test shall not constitute a part of the approved method of analysis." This removes procedural objections to admissibility of breath tests as any test conducted on an Intox. 5000 that has been inspected periodically and performed by an individual with a valid permit meets the statutory requirement for an approved test. (see State v Padidham A11A0678)

255 Ga. App. 305 Jarriel v. State,

The three hour requirement stated in O.C.G.A. 40-6-391(a)(5) (per se DUI alcohol) may be proved by circumstantial evidence.

281 Ga App 252 Simmons v State A06A1517

This DUI by golf cart defines vehicle in relation to the DUI statute. The court pointed out that 40-6-391 refers to moving vehicles, not motor vehicles," and is not limited to vehicles which are self-propelled. A "vehicle" is defined in OCGA § 40-1-1 (75) to mean "every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting devices used exclusively upon stationary rails or tracks." In addition the court reiterated the DUI statute "draws no distinction between driving on public roads versus private thoroughfares"; further, the fact that the act was committed on private property does not give immunity from prosecution for this crime.

286 Ga App 441 Trull v State A07A1294

Alco-sensor results are not used as evidence of the amount of alcohol or drug in a person's blood. Instead, the alco-sensor is used as an initial screening device to aid the police officer in determining probable cause to arrest a motorist suspected of driving under the influence of alcohol.

2008 Ga App Lexis 1094 Laseter v State A08A1245

We have consistently held...that results of Intoxilyzer breath tests comply with the standard for admissibility as scientifically reliable evidence. And as the Supreme Court observed in Lattarulo, "no procedure is infallible. An accused may always introduce the evidence of the possibility of error or circumstances that might have caused the machine to malfunction. Such evidence would relate to the weight rather than the admissibility of breathalyzer results."

ASL HEARING SHEET

INCIDENT DATE	TIME	LOCATION

This Petitioner was in actual physical control of a motor vehicle in the state at the time of the initial stop. I stopped the motor vehicle because: _____.

I had personal observation of the Petitioner and detected a (STRONG MILD SLIGHT) oder of an alcoholic beverage coming from his/her breath. This fact together with the following aspects of the Petitioner's appearance and conduct led me to believe that the Petitioner had consumed an unknown quantity of alcohol rendering him/her a less safe driver.

- GLASSY EYES
- BLOODSHOT EYES
- SLURRED SPEECH
- UNSTEADY
- CONFUSED
- CLOTHING DISARRAY
- SLOW
- _____

I requested the Petitioner to perform a number of field sobriety tests which were not completed to my satisfaction. (Describe). Based on these circumstances, I placed the Petitioner under arrest for DUI and told him/her so. I then immediately read him/her, at the scene, his/her implied consent warning from my card dated _____ and requested a _____ test. This is the warning I read to him/her (read from card into record).

☐ *Refusal*

After reading the implied consent warning to the Petitioner, the Petitioner refused to submit to my request. The Petitioner refused by saying/doing the following;_____. *Note:* If refusal was based on insufficient sample, or failing to blow into a machine, submit one of the original copies of intoxilizer test results along with a copy of your Intoxilizer operator's permit or a certified copy of Intoxilizer operator's permit if you were not the operator.

☐ *Test Taken and Results were over limit*

At my request, the Petitioner submitted to a State-administered chemical test to determine the blood alcohol concentration. The State-administered chemical test was properly administered by _____, who possesses a valid permit issued by the Division of Forensic Sciences of the Georgia Bureau of Investigation on an instrument in good working order and approved by the Division of Forensic Sciences. The results of the test indicated that the Petitioner exceeded the minimum blood alcohol concentration of _____ grams. *Note:* Submit one of the original copies of intoxilizer test results along with a copy of your Intoxilizer operator's permit or a *certified copy* of Intoxilizer operator's permit if you were not the operator, or copy of crime lab blood report. **(These Must Be Brought With You To The Hearing.)**

In conclusion, I had reasonable grounds to believe the Petitioner was operating or in actual physical control of a motor vehicle while under the influence of alcohol or controlled substance pursuant to OCGA §40-5-67.1(g)(2)(A).

☐ *Refusal*

I properly informed the Petitioner of his implied consent rights and the consequences of submitting or refusing to submit to a State-administered test. OCGA §40-5-67.1(B); OCGA §40-5-67.1(g)(2)(C).

☐ *Test Taken*

The State-administered test was proper in this case and the results indicated a blood alcohol concentration of _____ grams or more. OCGA §40-5-67.1(g)(2)(E); OCGA §40-5-67.1(g)(2)(F).

For these reasons, I respectfully request the administrative license suspension for the person be SUSTAINED. Thank you.

SCOPE OF THE ALS HEARING
O.C.G.A. § 40-5-67.1(g)(2)

The scope of the hearing shall be limited to the following issues:

(A) Whether the law enforcement officer had reasonable grounds to believe the person was driving or in actual physical control of a moving motor vehicle while under the influence of alcohol or a controlled substance and was lawfully placed under arrest for violating Code Section 40-6-391; — 1ST ISSUE

(C) Whether at the time of the request for the test or tests the officer informed the person of the person's implied consent rights and the consequence of submitting or refusing to submit to such test; and — 2ND ISSUE

(D) Whether the person refused the test; — 3RD ISSUE (REFUSALS

OR

(E) Whether a test or tests were administered and the results indicated an alcohol concentration of 0.08 grams or more or, for a person under the age of 21, an alcohol concentration of 0.02 grams or more or, for a person operating or having actual physical control of a commercial motor vehicle, an alcohol concentration of 0.04 grams or more;

AND

(F) Whether the test or tests were properly administered by an individual possessing a valid permit issued by the Division of Forensic Sciences of the Georgia Bureau of Investigation on an instrument approved by the Division of Forensic Sciences or a test conducted by the Division of Forensic Sciences, including whether the machine at the time of the test was operated with all its electronic and operating components prescribed by its manufacturer properly attached and in good working order, which shall be required. **A copy of the operator's permit showing that the operator has been trained on the particular type of instrument used and one of the original copies of the test results or, where the test is performed by the Division of Forensic Sciences, a copy of the crime lab report shall satisfy the requirements of this subparagraph.** — THIRD ISSUE (TESTS)

GEORGIA'S

LAW ENFORCEMENT HIGHWAY SAFETY TEAM

Saving Lives and Funding with Georgia's Implied Consent Notice and BAL Testing

Dear,

By this letter, we are respectfully requesting you and your public safety agency take every legal step to ensure Georgia's Implied Consent Notice laws and BAL Testing are engaged for every fatality crash in your jurisdiction. We make this request to save lives and ensure Federal funds are available to assist agencies in saving lives on Georgia's roadways.

Approximately 535 of Georgia's 1,700 crash deaths involve impaired drivers. A key State policy and strategy to lower impaired driver involved crash deaths is Georgia's Implied Consent and Impaired Driving Laws, O.C.G.A. Sections 40-5-55; 40-5-67.1; 40-6-392. These laws are designed to make the consequences of driving impaired in Georgia sufficiently dire to deter impaired driving in the first instance.

These laws only work with good enforcement. Fortunately, Georgia's law enforcement community is committed to enforcing Georgia's Implied Consent and Impaired Driving laws. This despite the fact the laws are both complicated to enforce on their face and have been modified by State Court of Appeals and State Supreme Court decisions.

Often the challenges associated with applying Georgia's Implied Consent Laws result in the BAL test not being administered. In Georgia, approximately 35% of the fatality crash reports show that a BAL test was administered and results documented. That means in approximately 65% of Georgia's fatality crashes the driver(s) were not tested or the results of the test were not reported.

Under applicable Federal law, Georgia must demonstrate it is increasing the BAL testing of drivers involved in a fatality crash by 1% or more per year in order to receive its full allotment of Federal dollars which are used to combat impaired driving in Georgia. This amounts to approximately $4 million per year which is used by the Governor's Office of Highway Safety as grants to fund local agencies' impaired driving initiatives. These grants include our State's

GEORGIA'S LAW ENFORCEMENT HIGHWAY SAFETY TEAM

HEAT units, DUI Task Forces, Traffic Enforcement Networks, and GPSTC's DUI and DRE courses, amongst others.

Without these programs being funded and in place, Georgia will certainly experience more impaired driver crash deaths. That is why we ask that each and every fatality crash in your jurisdiction be fully investigated to determine if the driver was impaired and the results of that test properly reported. This especially includes where the driver is deceased, or where at first glance there may not be evidence of impairment.

Only by vigorously searching for all evidence which allows the legal application of Implied Consent and reporting the results will Georgia be able to meet the requirements tied to the Federal funding source. It is important to note the results of all tests count; including those showing an impairment below the legal limit and breath tests.

In order to ensure that all fatality crashes are fully investigated, the blood alcohol level of every deceased driver should be tested. The surviving driver involved in the fatality crash should be asked, pursuant to implied consent, to submit to a blood alcohol test when there is probable cause to believe that the surviving driver is under the influence of alcohol or drugs.

All of us thank you in advance for the outstanding efforts of your agency to combat impaired driving in the State of Georgia. By testing and reporting the results of the tests we will ensure the results of that effort are properly documented and funds used to save lives are retained.

Respectfully:

J. Terry Norris
Executive Vice President
Georgia Sheriffs' Association

Frank Rotondo
Executive Director
Georgia Association Chiefs of Police

Robert F. Dallas
Director
Governor's Office of Highway Safety

Saving Lives on Georgia Roadways.....