

Contents

- 19-A
Introduction to Alcohol
- 19-B
Alcohol-related Crashes
- 19-C
Physiological Factors
- 19-D
Psychological Factors
- 19-E
Other Drugs
- 19-F
Intervention Strategies
- Module Eight Review

Alcohol & Other Drugs

The use and abuse of drugs, whether alcohol or any other type, has a profound effect on the human neuro-muscular system. The driving task needs the full concentration of a person who is in ideal physical and mental condition. Any reduction in one's abilities is not acceptable.

Society has become much less tolerant. Much stiffer fines and penalties have been enacted in an attempt to deter individuals from drinking and driving. Zero tolerance laws have been enacted for minors.

The media (movies, T.V., magazines, etc.) bombard society with alcohol-related campaigns paid for by the alcohol industry. By the time you become a young adult, you have been brainwashed by their message. As a future driver, you must re-evaluate your thinking regarding alcohol.



AFTER COMPLETING THIS CHAPTER, THE STUDENT MUST BE ABLE TO SYNTHESIZE INFORMATION AND APPLY PROBLEM-SOLVING SKILLS :

- for making health-promoting decisions regarding impaired driving.
- to evaluate the nature of the impaired driving crash problem.
- to the physiological and psychological effects of alcohol (and other drugs) and demonstrate comprehension of the effect on the driving task.



Introduction to Alcohol

Where do laws originate? Are all laws in written form? Glance at the chart below which briefly summarizes the most common regulations (laws or rules) that govern your everyday life.

any less important, nor mean that they can be ignored. The natural laws, for example, are not; failure to heed them can lead to dire consequences, especially with respect to the driving task.

As the chart points out, there are many rules that are not written. This does not make them

Many of the rules governing your lifestyle are absorbed by osmosis; the daily observation of



others (parents, peers) obeying them. Conversely, bad habits are also acquired in this way.

A person is considered responsible when actions are in accord with the norms, whether explicit or implicit. This suggests that a person who is responsible, is accountable for his/her actions and the consequences thereof. Proper actions are rewarded; the authority in question places trust in the individual and allows more freedom of action. Improper actions, on the other hand, are penalized by removal of privileges or some other form of punishment relative to the severity of the offense.

In our daily existence, we are surrounded by rules and regulations of all kinds. Civil liabilities (tort) resulting in lawsuits, as well as government penalties, may result from irresponsible behavior.

DRIVER RESPONSIBILITY

As a driver, you have a responsibility to obey the law, cooperate with other road users, etc. Your liability for improper action is a fine, loss of user privileges and, most seriously, the possibility of personal injury, as well as the injury or even death of other road users. In addition, you are faced with many added responsibilities which have been discussed throughout the text. In point form, they are:

PERSONAL RESPONSIBILITY

Imposed by customs, parents, peers and personal values:

- Self-preservation,

- Vehicle preservation,
- Parents' trust, and
- Passengers' trust.

LICENSING AND PREPARATION

Imposed by government.

- Vehicle operational skill,
- State rules and regulations,
- Willingness to operate within guidelines, and
- Vehicle preparedness.

FINANCIAL RESPONSIBILITY

Imposed by government and insurance.

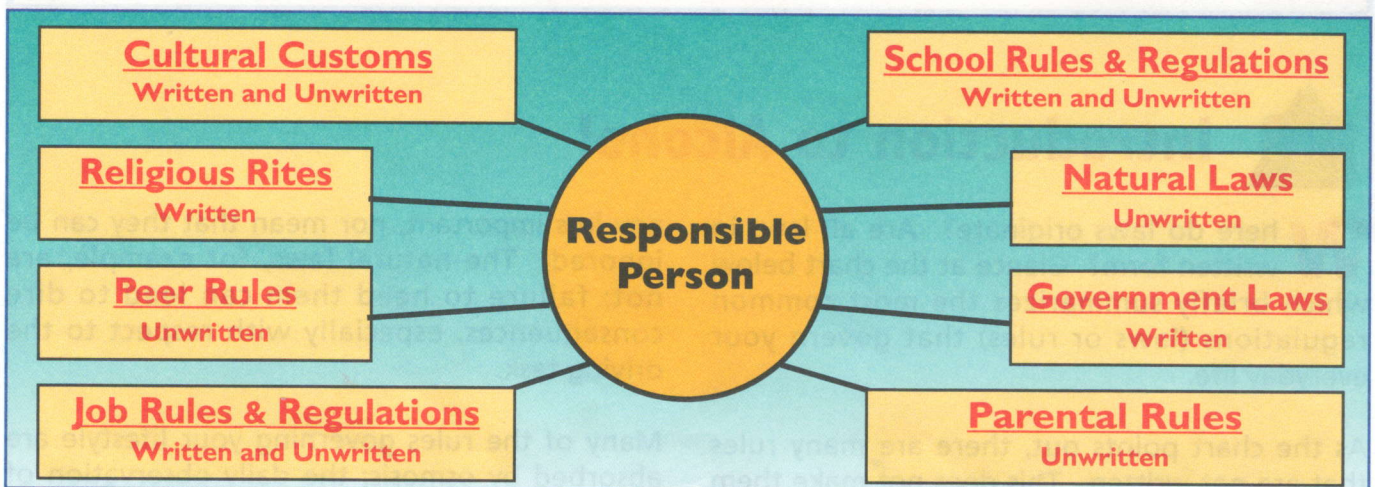
- To make restitution for errors in judgment that cause property damage, injury, or death; and
- To provide a monetary pool to share costs.

TORT LIABILITY

Tort is defined as a wrong or wrongful act. Courts determine who is at fault in an action committed by an individual or driver, with government and civil liability as a consequence.

- Roadway property,
- Other user personal injury/death,
- Personal property of other users, and
- Personal well-being and security of other road users.

You must understand that operating a vehicle allows for greater freedom and may open doors of opportunity; however, the opposite side of the coin is much more serious responsibility for a great number of decisions that affect many other road users. Poor choices lead to uninvited, serious, and sometimes long-term consequences.



Alcohol and other drugs create very serious problems related to decision-making and operating a motor vehicle. Statistical evidence demonstrates that combining alcohol with the driving task is the leading problem among youthful drivers. What is the potential for injury or death if you decide to mix drinking and driving? **Drunk driving is the number one killer of teenagers.** As a responsible driver, what choices will you make?

Although alcohol use is a choice made by individuals, use of alcohol and other drugs is controlled by laws and enforcement agencies. What will be the consequences if you choose to drink and drive? Review Chapter 5 for the short and long term penalties provided under the law for drinking and driving.

OTHER CONSEQUENCES

A conviction for drinking and driving will have many other repercussions on the life of a normal citizen. They are:

• PERSONAL CONSEQUENCES

The inconvenience of being unable to drive yourself (alternate transportation) and the embarrassment of the conviction. If it is a felony, you may lose your voting rights, the right to own a firearm, the ability to travel to certain countries, and any future employer will regard you as a felon. This may not only be embarrassing, but downright painful.



• FINANCIAL CONSEQUENCES

Besides the lawyer's fees, fines, vehicle seizure/forfeiture, alcohol/drug assessment and information course, license reinstatement, and all the other fees related to the trial, conviction, and rehabilitation, your insurance premium will skyrocket for several years after you reapply for your license.

If someone had been injured or died, you may also face a civil lawsuit placed by the injured party or a relative of the deceased. The court judgment can exceed your earning ability for the rest of your life and/or require forfeiture of property or any other assets you may possess.

Is the short term "pleasure" of drinking worth all of the short and long term consequences that are most likely to result? The discussion of risk assessment and decision-making in Chapter 12, stressed **three major concepts. They are:**

- **Never risk more than you can afford to lose!**
- **Do not risk a lot for a little!**
- **Consider the odds and your situation!**

How would these concepts apply to decisions regarding drinking and driving?

The criminal justice system is designed to protect society from those people who are unable to make responsible decisions, or who make irresponsible decisions and choices. The consequences of high risk decisions are sometimes not known by young drivers until after the crash occurs. **Ignorance is no excuse;** it will not affect the consequences. Consider the facts that have been presented, you should now be in a position to make a responsible, risk-reducing decision. **Just say NO!**

Statistics



Approximately **1.17 million drivers were arrested in 2013 for DUI-alcohol or narcotics. This is an arrest rate of 1 for every 181 licensed drivers in the USA.**

DOT HS 812 169

Don't be part of the problem! BE PART OF THE SOLUTION!



19-B

Alcohol-related Crashes

The effects of alcohol on driving have become a matter of great social concern. Accident statistics demonstrate a drastic toll in deaths and injuries where alcohol was a major factor (in 30 to 40% of all fatal collisions). This includes both drivers and pedestrians.

This is especially the case when teenage drivers are involved, even though they may not be of drinking age. The leading cause of death for teens aged 16 to 21 is motor vehicle crashes.

In recent years, there has been a decline in fatalities due to collisions. This is due in part to developments in vehicle safety features, and also in part because of increased police surveillance, the severity of court penalties, and the actions of public groups to prevent impaired driving (MADD, SADD, etc.), as well as improved traffic safety education.

In Texas, there were **1,041 people killed in traffic crashes where a driver was under the influence of alcohol** - 29 percent of all traffic fatalities for 2014. It represents an average of **one fatality every 8 hours and 25 minutes**.

Also during 2014 in Texas, more DUI - Alcohol crashes were reported in the hour between 2:00 am and 2:59 am than any other hour. Also, more occurred on Saturday than any other day. (TXDOT Crash Highlights 2014)

In 2013, in the United States, there were **10,076 fatalities** in crashes involving a driver with a BAC of .08 or higher; this was **31 percent of total traffic fatalities** for the year. An average of **one alcohol-impaired-driving fatality occurred every 52 minutes** (DOT HS 812 102).

No data is available, neither nationally nor for Texas, for drug-related crashes (lack of uniform and comprehensive testing). **Does this mean there were none?** What do you think?

These statistics do not talk about the emotional scars which often outlast the physical, legal, and moral consequences of crashes. The impact on the friends and families of the people affected are not mentioned either.

Since all states have enacted 21 year-old minimum drinking age laws, NHTSA estimates that these laws have reduced traffic fatalities involving teen drivers by 13 percent, and have **saved an estimated 29,832 lives since 1975**.

In 2014, an estimated 504 lives were saved by minimum drinking age laws. (Visit the NHTSA web site at www.nhtsa.dot.gov for pdf documents on traffic related fatality statistics.)

Despite the fact that the legal drinking age in Texas is 21 years of age, there were **3,723 under legal drinking age drivers involved in alcohol-related incidents in 1995**. This represented almost 40 percent of all drivers involved in alcohol-related crashes.

TEENS AT GREATER RISK

Teen drivers are at a much greater risk of being involved in a fatal motor vehicle crash when alcohol is involved. The risk for drivers age 16 through 19 is higher than all other age groupings at any BAC level studied (age-specific analysis of data). In addition, as BAC levels increase, risk of death rises faster for this age group (see chart facing page).

19

Statistics

Based on over 477,817 reportable crashes in 2014 in Texas (one every 66 seconds):

- **237,942 injuries** - 1 person injured every 2 minutes and 13 seconds
- **17,152 serious injuries** - 1 person incapacitated every 30 minutes and 38 seconds
- **3,534 fatalities** - 1 person was killed every 2 hours and 29 minutes



% OF BAC	AGE - SPECIFIC	INCREASED RISK OF DEATH
.015 to .049	24 and older	MINIMAL
	Teens 15 to 19	2,5 times
.05 to .079	24 and older	2 times
	Teens 15 to 19	9 times
.08 to .099	24 and older	7 times
	Teens 15 to 19	40 times
.10 to .149	24 and older	13 times
	Teens 15 to 19	90 times
.15 and over	24 and older	110 times
	Teens 15 to 19	420 times

legal-drinking-age licensed drivers; this equalled 7.8% of all licensed drivers in Texas at the time.

3,350 under legal-drinking-age drivers were involved in alcohol-related crashes in that year; this represented 12.7% of all alcohol-related crashes.

This is a 63% over involvement by teen drivers in alcohol-related crashes in 1998 in Texas.

The fact that young drivers are at such a high risk when they drink and drive was one of the prime reasons for legislators in Texas (as well as in other states) enacting the **Zero Tolerance For Minors Law** and raising the legal drinking age to 21 years of age. **You must decide never to drink and drive.**

OVER-INVOLVEMENT OF TEENS

In Texas in 1998, there were 1,054,120 under

Statistics in recent years indicate improvement. There is, however, still a long way to go. **One fatal collision** in which alcohol is a contributing factor is one too many! There is no possible justification for a responsible teenager taking the wheel, unless in complete control of his/her faculties. **The risk of injury, disfigurement and death is too real.**

As a responsible teen driver, you should NEVER DRINK AND DRIVE.



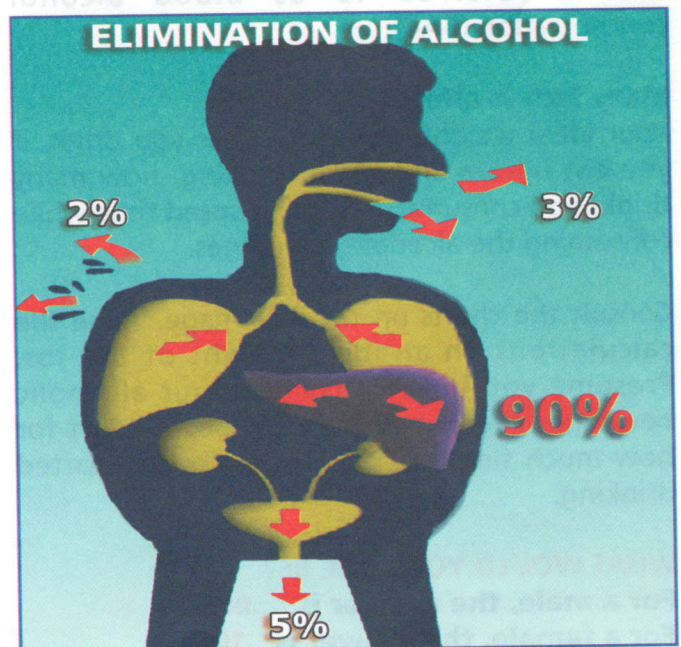
Physiological Factors

It is essential that every teen realize that consuming, purchasing, and possessing alcoholic beverages is illegal for them in Texas, as well as in every state in the United States.

AS A DRUG

Alcohol is a drug. It's a chemical (ethanol or ethyl alcohol) which is the result of fermentation. Unlike food which must be digested, it is absorbed directly into the bloodstream. It is then absorbed by all of the fluids in the body tissues. The human brain has a larger concentration of body fluids and thus absorbs a greater percentage of the alcohol.

The liver must eliminate 90% of this absorbed alcohol, at its own steady rate. **You cannot**



speed up the process. The liver oxidizes the alcohol present in the bloodstream - converting it into water and carbon dioxide; approximately one alcoholic serving per hour.

(1.5 OZ. HIGHBALL, 12 OZ. OF BEER, 5 OZ. OF WINE)

There is no miracle cure. Once alcohol is imbibed, **TIME IS THE ONLY REMEDY.**

STAGES OF ALCOHOL INFLUENCE

All of the negative consequences of alcohol start with the first drink! They increase as each extra alcoholic beverage is consumed. They are also aggravated by your mood and fatigue. At what point are you unable to drive? At what point will the risk become unacceptable?

YOU SHOULD NEVER DRINK AND DRIVE!

What is the legal limit for an adult?
What is the legal limit for a minor?

BLOOD ALCOHOL LEVEL

The amount of alcohol in a person's bloodstream can be measured by a chemical analysis of the blood, urine, or breath. In Texas, a test of either breath or blood is permitted under the law and accepted by the courts as proof of impairment. The amount of alcohol present (grams of alcohol per two hundred and ten liters of breath) is expressed as a decimal and is referred to as blood alcohol concentration (BAC).

Many factors affect your BAC :

Your ideal weight, your sex, what you drink, if you eat before and while drinking, how many drinks you consume, and the elapsed time while consuming the alcoholic beverages.

Consult the charts on the next page. Base the calculations on an ideal weight of 150 lbs. Presume you have consumed four alcoholic beverages over a two hour period. Deduct for how much time has elapsed since you started drinking.

WHAT WOULD YOUR BAC BE?

For a male, the answer is **.086**

For a female, the answer is **.105**

ESTIMATED BAC BY NUMBER OF DRINKS IN RELATION TO BODY WEIGHT

FEMALES

BODY WEIGHT LBS	NUMBER OF DRINKS									
	1	2	3	4	5	6	7	8	9	10
100	.050	.101	.152	.203	.253	.304	.355	.406	.456	.507
125	.040	.080	.120	.162	.202	.244	.282	.324	.364	.404
150	.034	.068	.101	.135	.169	.203	.237	.271	.304	.338
175	.029	.058	.087	.117	.146	.175	.204	.233	.262	.292
200	.026	.050	.076	.101	.126	.152	.177	.203	.227	.253
225	.022	.045	.068	.091	.113	.136	.159	.182	.204	.227
250	.020	.041	.061	.082	.101	.122	.142	.162	.182	.202

MALES

BODY WEIGHT LBS	NUMBER OF DRINKS									
	1	2	3	4	5	6	7	8	9	10
100	.043	.087	.130	.174	.217	.261	.304	.348	.391	.435
125	.034	.069	.103	.139	.173	.209	.242	.278	.312	.346
150	.029	.058	.087	.116	.145	.174	.203	.232	.261	.290
175	.025	.050	.075	.100	.125	.150	.175	.200	.225	.250
200	.022	.043	.065	.087	.108	.130	.152	.174	.195	.217
225	.019	.039	.058	.078	.097	.117	.136	.156	.175	.195
250	.017	.035	.052	.070	.087	.105	.122	.139	.156	.173

1 DRINK =  Beer  Wine  Spirits

HOURS SINCE FIRST DRINK	1	2	3	4	5
SUBTRACT FROM BAC	.015	.030	.045	.060	.075

It is commonly accepted that by a BAC of .03 to .05, a driver's abilities are impaired.

By .08 in Texas (any discernable amount under 21), the driver is driving under the influence, and can be charged under the Criminal Code with all of the possible penalties (see Chapter 4).

EFFECTS OF ALCOHOL ON REACTION TIME

Your ability to react to any unusual situation is reduced starting from the first drink. It deteriorates further with any continued consumption of alcohol and subsequent increase in your BAC. Needless to say, you may be slow to understand (attention), or you may understand the wrong thing. You will be slow to decide (aggression, risk-reduction decision-making) and react (or react improperly), and then the muscles will not respond normally. What a recipe for a disaster. What could the consequences be? What is the crash potential?



COLLISION POTENTIAL / STATISTICS

If the BAC exceeds .08 (red zone), an adult would be seven times more likely to be involved in a collision (40 times for a teen); at .15, the chances increase to 110 times (420 times for a teen). At what point does the risk of injury or death become unacceptable to you as a driver? The answer should be that you should learn to say **"NO - I'm driving."** Any increased risk of a collision should be unacceptable! Any reduced ability to apply the SIPDE system to manage the driving environment, to make proper decisions, and to input proper driver control should not be considered at any time!

EFFECTS OF ALCOHOL ON THE BODY

Alcohol has both immediate effects on the body and long term effects when the body and the internal organs are consistently assailed by the ravages of alcohol present in the bloodstream.

The immediate effects are of the most interest to you because they affect driving ability and substantially increase the risk of a collision.

ORGANS

Long term, heavy use of alcohol can lead to addiction (alcoholism). The liver, brain, and other organs can become damaged. Cirrhosis of the liver usually leads to internal bleeding, liver failure, and death.

The brain can be damaged to the point where the individual cannot function normally in society. Problem drinkers continue to abuse alcohol and create problems for themselves, their families, and their communities.

VISION

Alcohol is a depressant. It has a relaxing effect on all muscles of the body. This applies especially to the fine, delicate muscles of the eye that focus and move the eyes. When these are relaxed, the resulting image loses its sharp focus. The more relaxed the muscles, the fuzzier the picture becomes (double vision).

Rather than search the roadway ahead, to the sides, and the rear-view mirror (as a driver should), a driver under the influence of alcohol

tends to stare at a point straight ahead or at any object that attracts his/her attention.

Glare from oncoming headlights or the environment produces a greater effect on the impaired driver, and the time required to recover from glare is much longer than normal.

Possible results are:

- a tendency to stare straight ahead;
- a narrowing of the field of vision;
- a reduction in depth perception;
- a reduction of adaptability to darkness;
- increased sensitivity to glare; and
- a longer time to readjust after glare.

BRAIN

The activity of the brain is also slowed, thus affecting judgment, reflexes, and muscular coordination. The image from the eyes is unclear and the brain is not functioning normally due to the presence of alcohol in combination with the body fluids in the brain tissue. What a great recipe for disaster!

Other effects of alcohol are:

- reduced awareness of danger;
- over-confidence (more reckless);
- difficulty recognizing potential hazards;
- difficulty making decisions; and
- a reduction in balance (equilibrium).

SYNERGISTIC EFFECT

NEVER MIX DRUGS AND ALCOHOL!

Alcohol, when combined with other drugs, produces a result referred to as a synergistic effect; which will be far greater than one would normally have expected. It is greater than the sum of each of the parts.

Alcohol is a primary drug. When present in your body, your system concentrates on the alcohol and ignores any other substances. Any other substance then produces a much greater effect than usual because a normal dose takes into account that some of the drug will be eliminated by your system.

Moreover, the alcohol may react with the other chemical and produce a new combination. In either case, it will have very dangerous effects and should be avoided at all costs.





Psychological Factors

The statistics on alcohol-related crashes indicate a need for more action to deter drinking and driving. With all this evidence, why do teenagers drink?

FACTORS INFLUENCING DRINKING

PEER PRESSURE: Many times teenagers (and even adults) do not like to admit that they are influenced by others. In reality, one of the most common reasons for drinking is because “everyone else is” or someone you wish to impress asks you to “**just have one drink.**”

INFLUENCE OF PARENTS: Parental influence can be for good or bad. If a teen comes from a home where alcohol is abused, this could lead the teen to also abuse alcohol.

SOCIAL ACCEPTANCE: Our culture is one which, for the most part, readily accepts drinking. Even the word “drink” has often come to mean “drink alcohol.” The onslaught of media advertising, paid for by the alcohol industry, glorifies the party atmosphere and success of people who drink.

ANXIETY/FRUSTRATION: Worries about school, athletics, boy/girl friends, jobs, family, etc. are all part of growing up and normal life. Alcohol is often portrayed as a means of coping with these problems. In reality, **alcohol usually makes things worse.**

HAVING A GOOD TIME: Drinking is associated with “**partying**” for many teenagers. This is partly due to the myth perpetuated by the alcohol industry that you will always have a good time when you consume their beer, alcohol, etc. Nothing could be farther from the truth. **Abuse of alcohol creates situations that are far from a “good time”** (hangover, drunkenness, throwing up, being arrested, etc.).

PSYCHOLOGICAL EFFECTS

Alcohol is a drug. When consumed, it enters the blood stream and circulates to all the parts of

the body. A given amount of alcohol affects each person differently and may not affect the same person in the same way every time.

ATTENTION

Alcohol affects the brain first and foremost because of the concentration of fluids in that area of the body. It usually affects a person’s ability to concentrate, and especially when several sources of incoming information are present at the same time; the divided attention problem which occurs frequently while driving.

MEMORY

Under the influence of alcohol, the brain is less capable of storing and retaining information. The ultimate example of this is the “**blackout**”; where a person who was under the influence cannot recall what transpired afterward.

EMOTIONS

From simple observation of people who drink, it is obvious that emotional control tends to be lost as more alcohol is consumed. There is conflicting research in this area as to what exact effects and how serious the effects can be.

AGGRESSION

There is a direct correlation between alcohol and aggression; the more alcohol consumed, the more a person becomes aggressive. In a social situation this may lead to uncomfortable situations. In driving, **this can be fatal.**

TOLERANCE

Tolerance is defined as the need to consume more of a drug to reach a given effect, or the body’s ability to eliminate the drug faster. In the case of alcohol, the body cannot eliminate it any faster, as we already explained. **What it does refer to is the person’s ability to mask the effects of alcohol.** In other words, someone who drinks regularly does not seem to get as drunk; he/she does not exhibit the normal signs (slurred speech, poor coordination, etc.). **This does not mean they are not affected.** If they were to take a breathalyzer test, the test results would show the actual blood alcohol concentration (BAC).



SAFETY TIPS



Statistical evidence demonstrates the danger of drinking and driving. Approximately one alcohol-related fatality occurs every 50 minutes. Is that not enough to convince you to **NEVER DRINK AND DRIVE? Obey the Texas Zero Tolerance Law as a minor and never drink and drive when you become an adult.**



Other Drugs

Other than alcohol, there are a wide variety of drugs, some legal and others illegal, that have a profound effect on the human body. Almost any one of these can have a harmful effect on your ability to drive.

Although limited research has been conducted on the specific effects of these drugs on the driving task, specific drug effects on humans are known. These have the potential to negatively affect driving. It is important to remember that any change a drug produces may also cause a lessening of driving ability.

affect the central nervous system and other bodily functions.

Some slow down the central nervous system and are called **depressants**. Others speed up the nervous system and are called **stimulants**. (Alcohol, for instance, is a depressant.)

OVER-THE-COUNTER DRUGS

Drugs, such as aspirin and other pain relievers, cold and allergy remedies, as well as medicines for back pain and arthritis, can be purchased at a local pharmacy, and are referred to as **over-the-counter (OTC)** medications. These drugs do not require any special permission to acquire them. Any individual may purchase them at a variety of stores.

KINDS OF DRUGS

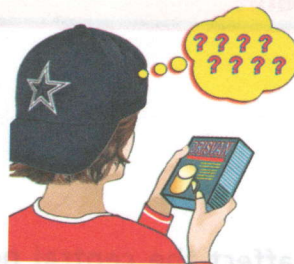
Most drugs are classified according to how they

DRUGS	HOW OBTAINED	POSSIBLE SIDE EFFECTS
Central-nervous system stimulants (such as diet pills, pep pills) Examples: amphetamines (Benzedrine, Dexedrine)	<ul style="list-style-type: none"> • Prescription only for chronic fatigue, mild depression, overweight, narcolepsy (sleep compulsion) 	<ul style="list-style-type: none"> • Depression, headache, dizziness, decreased ability to concentrate, irritability, hallucinations, hyperactivity
Analgesics (painkillers) Examples non-narcotic - Aspirin, Excedrin, Anacin	<ul style="list-style-type: none"> • Over-the-counter for pain 	<ul style="list-style-type: none"> • Bleeding in the stomach and intestines
Anti-infective agents Examples: sulfa drugs, antibiotics (Aureomycin, Penicillin, Streptomycin)	<ul style="list-style-type: none"> • Prescription only for infections 	<ul style="list-style-type: none"> • Nausea
Antihistamines (in many cold pills, hay fever pills) Examples: Atarax, Benadryl, Chlortrimeton, Dramamine, Pyrilamine	<ul style="list-style-type: none"> • Prescription and over-the-counter for colds, motion sickness, control of allergies, nasal congestion insomnia 	<ul style="list-style-type: none"> • Drowsiness, inattention, confusion, dizziness
Sedatives-hypnotics (sleeping pills) Examples: barbiturates Amytal, Luminal, Nembutal, Noctec, Seconal, Somnex	<ul style="list-style-type: none"> • Prescription only for insomnia, high blood pressure, epilepsy, emotional conditions 	<ul style="list-style-type: none"> • Mental confusion, poor muscle coordination, irritability, drowsiness
Local anesthetics	<ul style="list-style-type: none"> • Minor surgery, oral surgery 	<ul style="list-style-type: none"> • Poor reflexes/judgement, fatigue
Anti-anxiety agents Examples: benzodiazepines (Valium, Tanxene, Serax)	<ul style="list-style-type: none"> • Prescription only for mild and moderate anxiety 	<ul style="list-style-type: none"> • Drowsiness, blurred vision, fatigue
Tranquilizers Examples: Equanil, Halcyon, Librium, Mellaril, Miltown, Navane, Phenothiazine, Thorazine, Valium	<ul style="list-style-type: none"> • Prescription only for severe anxiety, emotional problems, alcoholism 	<ul style="list-style-type: none"> • Drowsiness, faintness, vomiting, tremors, dizziness
Narcotics Examples: morphine, codeine (cough syrup). Darvon, Demerol, Dilaudid, Percodan, Vicodin (painkillers)	<ul style="list-style-type: none"> • Prescription and over-the counter for deadening pain, inducing sleep 	<ul style="list-style-type: none"> • Inability to concentrate, apathy, euphoria, stupor, dimness of vision, drowsiness, nausea
Cannabinoids Examples: marijuana, hashish	<ul style="list-style-type: none"> • Illegal, only for medical research uses 	<ul style="list-style-type: none"> • Less coordination, distorts distance, depression hallucinations, panic, fear
Hallucinogens Examples: LSD, peyote, mescaline, DMT, STP	<ul style="list-style-type: none"> • Illegal, only for emotional illness, alcoholism (experimentally) 	<ul style="list-style-type: none"> • Hallucinations, striking distortions in senses, hands / feet shake, floating sensation, panic, depression



Although these **OTC drugs** are not “controlled,” they can cause drowsiness, dizziness, slower reaction times, reduced coordination, and other side effects that impair your ability to drive safely.

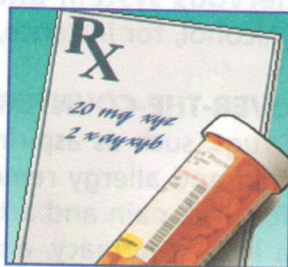
By law, **OTC drugs** must be labelled to warn the purchaser of any side-effects. It is important to **read the package label (or ask the pharmacist)**



for any possible side-effect that could affect your driving ability. The dosage recommended should also be checked on the label; exceeding the dosage may cause adverse results.

PRESCRIPTION DRUGS

Any drug that requires a doctor to order it (on a special form with a signature) in order to purchase it legally is called a **prescription medication**.



Whether because they contain higher dosages of the same active ingredients as OTC drugs, or because they contain other, more potent elements, they are controlled by law. Records are kept of their use because these drugs can have a very strong effect on the human system.

It is vital that you ask your doctor about any possible side-effects especially relating to your ability to drive.

DEPRESSANT DRUGS

Barbiturates, tranquilizers, and sleeping pills are all depressant drugs (as is alcohol). They are prescribed to relieve tension, to calm nerves, as well as to treat high blood pressure.

Driving while taking these depressants can cause the driver to become very relaxed, lose their inhibitions (take more risks), and have difficulty applying the SIPDE System.

The “major” tranquilizers (neuroleptics) impair information processing, especially at the onset of treatment. The “minor” tranquilizers

(benzodiazepines) can slow reaction time, decrease eye-hand coordination, and interfere with one’s judgment.

Because of the risks associated with barbiturate abuse, and the availability of safer drugs (such as the benzodiazepines), barbiturates are less frequently prescribed today than in the past. Nonetheless, they are still available, both on prescription and illegally. Even in moderate doses, they affect motor skills, coordination, vision, and vehicle handling ability.

Depressants are particularly dangerous if alcohol is also consumed (**Synergistic Effect**) because the mixture increases the collision risk enormously (particularly strong is the interaction between alcohol and diazepam - Valium). When an antihistamine (in cold, cough, and allergy remedies) is taken with a depressant drug, the resulting synergistic effect can also be hazardous due to the disruption of certain physical, intellectual, and perceptual functions.

ANTIDEPRESSANTS

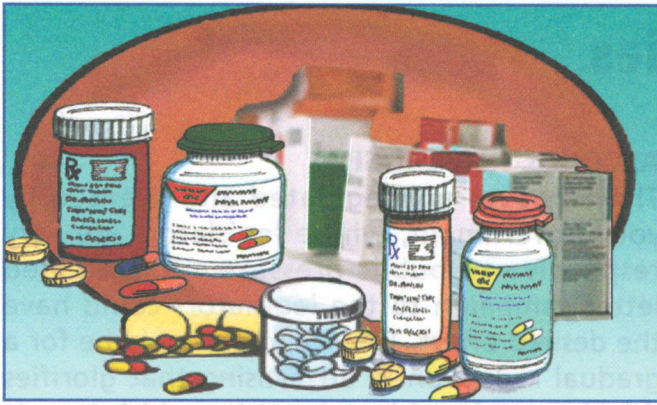
The sedative effect of antidepressants (e.g. Elavik, Tofranik, Sinequan) can impair vigilance, significantly increase reaction time, and seriously affect a person’s ability to handle a vehicle properly. These side-effects are especially dangerous when the driver must perform multi-tasks (divided attention), which occurs frequently when operating a vehicle in the HTS.

STIMULANTS

Any drug that can speed up, or stimulate, the central nervous system belongs in this category. Some people misuse these drugs to attempt to “stay awake” when driving at night, or over long distances. Initially, the user gets a feeling of alertness and high energy. However, the stimulant effect soon wears off (usually very suddenly), and the driver becomes very tired, very quickly (often falling fast asleep at the wheel).

Caffeine, in coffee, tea, and cola drinks, and **nicotine**, in cigarettes, are examples of





stimulants. It is an enduring myth that caffeine in coffee can sober one up (after consuming alcohol). This is totally false, only time can lower alcohol concentration in the blood. Drinking coffee will produce a wide-awake drunk, instead of a sleepy drunk.

Amphetamines are another example. Although laboratory data indicate that most of the basic driving skills involved in driving are not negatively affected by medical doses of these drugs, there is some evidence that they can result in over-confidence leading to risk-taking behavior. High doses make many people hostile and aggressive.

Cocaine affects the users perception, mood, and thinking. The most dramatic effect is on vision. It may cause a higher sensitivity to light, halos around bright objects, and difficulty focusing. Users have reported blurred vision, glare problems, and hallucinations (visual - weak flashes or movement of light in the peripheral field causing swerving toward or away from the light; auditory - the ringing of bells; olfactory - the smell of smoke or of gasoline).

Users claim cocaine actually improves driving ability, which is not surprising since it induces euphoria and feelings of increased mental and physical abilities. These "false" effects are short-lived, and are often followed by fatigue and

listlessness. The drug also heightens irritability, excitability, and startle response (resulting in severe anxiety coupled with sudden braking or steering reactions to noise, even when far away).

Suspiciousness, distrust, and paranoia - other reactions to cocaine - have prompted users to flee in their vehicles or drive evasively. All users surveyed reported attention lapses while driving and ignoring relevant stimuli (traffic lights).

HALLUCINOGENS

Often called mind-altering drugs, hallucinogens are very dangerous. They can have unpredictable results - alter personality, cause panic or terror, distort the way a person thinks, sees, and acts. For these reasons, selling, possessing, or using them is against the law.

Marijuana is the drug most often found in drivers involved in crashes (after alcohol). It takes only a small quantity of the active chemical in marijuana or hashish to impair the user's ability to see, steer, brake, and make correct driving decisions. The chemical can remain in the body for weeks; drug tests with positive results can result in citations and criminal charges.

Users can become drowsy and have problems judging speed, time, and space. They have been known to sit and stare while completely unaware of their surroundings. They may think that the effects have worn off when they are still impaired. When mixed with alcohol, it may mask the feelings of nausea that accompany intoxication, resulting in continued drinking (to the point of alcohol poisoning, coma, or death).

LSD and **PCP** (angel dust) are among the strongest of the hallucinogens. Users can become confused, forget who they are, where they are, and what they are doing. They have an altered sense of speed, space, time, and direction.

SAFETY TIPS



Statistical evidence demonstrates that 36% of fatalities, that were tested, were under the influence of drugs (other than alcohol). Ask your physician or pharmacist before taking any prescription or over-the-counter drug. Never consume any "street" drugs!





Intervention Strategies

Every year alcohol manufacturers spend billions of dollars to promote and sell their products at almost every major sports event, most of which are televised. If you think about it, it is almost impossible not to be influenced by this all pervasive campaign.

ADVERTISING TARGET

The target market for this media blitz is the new drinker. Advertising agencies and the advertisers themselves design advertising campaigns, not so much to influence the existing market to change brands, but rather to enlarge the market by attracting new consumers (drinkers). These new consumers (the young) will become life-long buyers.

CAMPAIGN MESSAGE

The message is, in order to be financially successful, glamorous, have a good time, be attractive to the opposite sex, and be successful with the opposite sex (or at least appear to be), you must drink their brand. Very few of these ads ever mention the responsible use of alcohol, or the dangers involved in drinking and driving. The devastating toll of deaths and injuries, and the social cost of collisions that are a direct result of drinking drivers are never shown. These statistics would be a sobering message.

As a new driver and as a member of the target group for this advertising campaign, you must not be hoodwinked by the message. You must develop the proper attitude with respect to this serious problem. **You should never drink and drive. Never let a friend drink and drive. Friends don't let friends drive drunk!**

INTERVENTION STRATEGIES

The question is: "What can I do?" The answer is that every individual, if he/she is so inclined, can have a profound effect on the people around them and, by a concerted campaign, on society, in general. Writing letters to legislators, the media, etc. is just one such example.

ALCOHOL ADVERTISING

The airwaves are regulated and licensed by your government, whose legislators are very responsive to public pressure. A concerted letter campaign to the legislators could have the desired effect. The proposal should be for a gradual reduction in advertising that glorifies drinking, replaced by advertising which targets the responsible use of alcohol.

DRUNK DRIVERS

Drunk drivers identify themselves by riding the lines, weaving, driving at inconsistent speeds, intermittent braking, misjudging stops (too soon or too late), driving without headlights, etc.

When you see a driver that seems to be impaired, turn off the road into a parking lot or side street. Keep away from that vehicle; the driver could involve you in a serious crash. Try to get the license number of the vehicle. Call the police immediately and report it along with the color, make, model, and direction of travel. In so doing, you will be instrumental in removing an impaired driver from the HTS and possibly preventing a collision involving injuries or fatalities. We are all responsible for safety.

ALTERNATIVES TO DRINKING AND DRIVING

As a responsible driver, you should **NEVER DRINK AND DRIVE**. Many other options are open to you if you are in a situation where drinking of alcoholic beverages is occurring:

THE DESIGNATED DRIVER - The person who will drive abstains from drinking alcoholic beverages and receives complimentary non-alcoholic beverages and/or food. Encourage your friends and favorite establishments to participate in the program. (Contact your local police department for materials/info.)

S.A.D.D. or M.A.D.D. - Organized groups that support people who have been drinking and do not wish to drive. A contract is signed by the two parties stating they will come to get you - no matter what, no questions asked.



ABSTINENCE - Refuse to drink alcoholic beverages when you will be driving. Try to assist others who are drinking.

ALTERNATE TRANSPORTATION - Take a cab! Get a ride! Call home and ask a family member to come and get you! Let someone else drive who has not been drinking. Don't ride with someone who has been drinking. Try to get the car keys. Friends don't let their friends drive drunk. Do your best to convince friends not to drive; offer alternate transportation. If you can't convince them, don't ride with them.

SLEEP OVER - Stay the night at a friend's place. If you are the host, encourage impaired people to sleep over if any other alternate transportation cannot be found.

In situations where alcohol is being consumed, choose one of the options above; any one you like and encourage others to do likewise. However, **if you consume alcoholic beverages, don't drive.** Moreover, **don't accept a ride from someone else who has been drinking.**

PARTY SITUATIONS

If you host a party and the guests are not of drinking age, make sure that they are aware that alcohol will not be served and will not be acceptable. Plan a wide selection of non-alcoholic beverages, appropriate entertainment and food. You can refuse entrance to individuals who appear to have been drinking prior to their arrival.

Encourage individuals that appear to be impaired to sleep over or arrange alternate transportation. Get their keys! If guests are of drinking age, don't force drinks on them or mix drinks that are stronger than normal. Space any alcoholic beverages out (one per hour). Have a large selection of non-alcoholic beverages available.

Serve various food items throughout the evening. Discourage any pressure on guests to drink. Stop serving alcoholic beverages at least one hour before the end of the evening. Pay special attention to known drinkers. Encourage drinking guests to sleep over or take alternate transportation home. Don't allow any impaired

person to drive. If necessary, pay for the taxi.

PUBLIC HEALTH

The cost to the American public in health care, lost productivity, injuries, incapacitation, permanent disfigurement, etc. due to alcohol-related collisions is estimated to exceed \$400 billion annually. This does not include the loss of lives, each would have contributed to society. ***This massive drain cannot continue.***

ASSESSMENT OF RISK

The first step in correcting this untenable situation is for each driver to realize that he/she increases the risk of a collision and all the possible ramifications (injury, death) every time alcoholic beverages or drugs are consumed prior to driving. The odds of it happening to you must be accepted and understood. No victim of a collision knew that it was going to happen; if this were the case, they would have done something differently to avoid the situation; **and yet, thousands die.**

This indicates that every driver is always at risk; however, alcohol/drugs increase the risk. It is like playing "*Russian Roulette.*" At what point is the loaded chamber lined up with the firing pin and barrel? Would you play this fatal game? **WILL YOU DRINK AND DRIVE?**

ACTIONS TO REDUCE RISK

- Apply the SIPDE system to reduce risk.
- **Never drink and drive;** keep in top physical and mental condition to avoid collisions.
- Do whatever you can to **prevent others from driving drunk.** Assist your peers who might otherwise succumb to social pressure to drink, or who might need a lift when they have been drinking.
- **Report impaired drivers** to the authorities to get them off the streets (that you and your loved ones may be using).
- Join letter-writing campaigns / organizations that are implementing programs to reduce the incidence of driving while impaired.
- Realization of the severity of the results that impaired driving are very likely to produce.

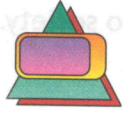
You have a choice. You can take a stand. You never *HAVE* to drink and drive.





DRIVING PLAN

The student formulates a Driving Plan incorporating the knowledge and skills of Module Eight (Alcohol & Other Drugs) to endorse, to promote and to sustain lifelong legal and responsible reduced-risk driving practices in the HTS.



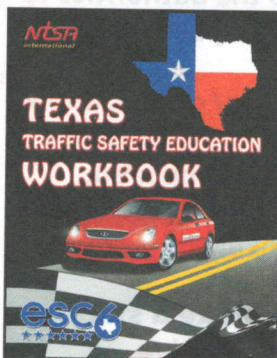
Module Eight Review

VOCABULARY - WRITE A SHORT DEFINITION FOR THE FOLLOWING :

- BAC
- Under 21 BAC limit
- Intervention strategies
- Zero Tolerance Law
- SADD
- Tort liability
- Vehicle seizure
- Synergistic effect
- Depressant
- Coordination
- Designated driver
- MADD

TEST A- ANSWER THE FOLLOWING QUESTIONS.

1. A) What is the legal blood alcohol concentration (BAC) limit for drivers under the age of 21 in Texas?
B) What are the penalties if drivers under age 21 disobey the law?
2. A) What is the legal blood alcohol concentration (BAC) limit for drivers in Texas?
B) What are the criminal penalties if they disobey the law?
C) What other consequences may be involved in a DUI conviction?
3. A) What are the effects of alcohol on driving ability?
B) Describe how the risk of death increases for a driver under the age of 21 when alcohol is consumed?
C) How does this compare to the risk of death for an adult driver?
D) What is meant by the "over-involvement of teens" in alcohol-related crashes?
4. A) What intervention strategies can be used to reduce drinking and driving?
B) What can you do to help prevent drinking and driving?
5. A) What are the effects of different drugs on driving ability?
B) How can you prevent driving under the effect of drugs?



TEXAS TSE STUDENT WORKBOOK

Check your comprehension and mastery of the contents of this Module by completing the corresponding exercises that are found in the complement to the **TEXAS TSE STUDENT MANUAL**:

TEXAS TSE STUDENT WORKBOOK

Complete the assigned questions in the workbook. If necessary, review the chapters when uncertain of an answer and refer to your instructor for further guidance.