Information About Alcohol

Teens and Alcohol

Alcohol use is a personal choice which can cause addiction and lead to violence and criminal behaviour.

Alcohol misuse presents the greatest drug problem in Australia today. Some problems alcoholism presents to society are deaths and injuries resulting from drunken driving; the millions of hours of absenteeism from work; loss of jobs by alcoholics; crimes and child-abuse; death and disability from cirrhosis of the liver; and chronic psychosis due to alcoholic brain damage accounting for 20% of the patients in state mental hospitals.

What is Alcohol?

Alcohol is a central nervous system depressant- it slows down the body's functions and its effects are similar to those of a general anaesthetic.

Ethyl alcohol (ethanol) is the active ingredient in all alcoholic drinks. If you take any alcoholic beverage and remove the ingredients that give it taste and colour, you get ethyl alcohol. Remove the water from ethyl alcohol and you get ether.

Ether is an anaesthetic that works on the brain and puts it to sleep. The same symptoms a surgical patient experiences under ether are those experienced by a person drinking alcohol.

Compare Alcohol with Ether

The difference between the two is that alcohol contains water- ether doesn't. Ether is administered very carefully by medical professionals. The next step beyond an anaesthetic state is death. We place our lives in the hands of the anaesthesiologist, don't we? Maybe we should take him along while we are carelessly administering alcohol to ourselves.

Alcoholism

Alcohol consumption is a learned behaviour- no one likes the taste of alcohol at first, you learn to like it. People drink out of curiosity, because of custom (let's "toast" the bride and groom), and for escape- to replace an unpleasant felling with a sense of well-being and euphoria. Alcoholics are perceived as being weak people or as having bad habits. This is not true.

Alcoholism is the disease produced by the repeated misuse of ethyl alcohol. It is a Primary disease: it is not caused by some underlying psychological or moral flaw. It is a Chronic disease: it does not go away with time. It is a Progressive disease: it does not improve as long as one continues to drink. It is a potentially Fatal disease, if the drinking is not interrupted.

A primary characteristic of an alcoholic is a loss of control- once an alcoholic starts to drink, he or she is not able to predict how, when, or if he or she will be able to stop.

There are at least 10 million alcoholics in the U.S. and 1 person in 10 who drinks at all will become an alcoholic.

Approximately 25% of people who drink alcohol have problems during their life.

Alcohol and the Body

Once alcohol is absorbed into the bloodstream, it is rapidly distributed throughout the body. It affects almost every cell, every organ, and every level of human functioning. The most profound early effect is on the central nervous system, where it acts as a sedative, producing relaxation and sense of well-being. It impairs the intellect, physical abilities and metabolism.

When alcohol is taken regularly, in large amounts over many years, permanent physical damage will occur. This damage is often aggravated by the lack of vitamins because most alcoholics have poor eating habits. Alcohol can also damage the liver, brain and other parts of the nervous system. In the final stages of alcoholism, parts of the brain are permanently damaged and confusion, disorientation and psychosis result. The potential dangers of alcohol abuse are so great that many scientists believe that, if the drug had been discovered today, it would probably not be approved by FDA.

Alcohol and the Brain

Any chemical that alters mood, feelings, co-ordination, perception, or behaviour, alters the cells in the brain and disrupts their normal chemical behaviour.

When alcohol enters the blood stream it travels to the brain. Alcohol can affect millions of nerve cells and change communication patterns throughout the brain. Alcohol can impair vision, distort hearing, muddle speech, impair judgement, dull the body's senses, disturb motor skills, and reduce co-ordination. Deep inside the brain alcohol can affect the areas that control aggression, hunger and thirst, pleasure and pain, and body temperature.

These effects are produced because the alcohol inhibits blood from transporting oxygen to brain cells. When brain cells are deprived of oxygen, they become impaired and possibly die! That's brain damage.

Because the brain matures more slowly than other organs of the body, it may be even more susceptible to certain permanent, irreversible effects of alcohol.

The hypothalamus is the portion of the brain that controls our automatic reflexes: breathing, heartbeat, and other bodily operations over which an individual has no conscious control. When alcohol is present in the blood stream it directly affects the hypothalamus, possibly damaging it, particularly during the adolescent years.

In addition, alcohol has a profound effect on the frontal lobe- the part of the brain that allows us to analyze and program our behaviour. It also allows us to convert experience to memory and is responsible for the formation of our "self-image". These processes require a tremendous amount of energy. The depressant nature of alcohol directly lowers the energy center in the brain. Those who lower the energy levels in the brain by using alcohol or other toxic chemicals, lose not only mental capacity, but their ability to realize they have lost it.

Adolescence is a time of changing attitudes, perception and behaviour. Peer pressure is very strong and the need to belong and to be accepted often leads a young person to yield to these pressures. Knowing the facts about alcohol will allow students to say "No" and know why.

Adolescence is also a time of fluctuating psychological and physical growth. Brain cells (neurons), are especially important during this developmental period and must be protected. The brain is the only organ or body part not equipped with pain fibres nor has it the ability to

produce new brain cells should they die!

So the next time you're offered a drink, you might point out to your friend that for those under 18, drinking is against the law. Your companions might scoff at you. They'll ask what you're afraid of. Instead, you might tell them that you're saving your brain cells for later years, when you might need them!

Alcohol and the Unborn Child

Alcohol is a neurotoxin (poison) and a teratogen i.e. an agent that is known to adversely affect fetal development and cause birth defects and brain damage in children.

Alcohol crosses the placenta freely and the blood alcohol concentration (BAC) in the fetus becomes equal to or greater than the blood alcohol level of the mother. Because the fetus cannot break down the alcohol the way an adult can its blood alcohol concentration remains high for a longer period of time than its mother.

Researchers do not know how much alcohol, if any, is safe to drink during pregnancy and there is also no safe time for a pregnant woman to consume alcohol. What they do know is the risk of damage to the unborn child increases the more you drink and that binge drinking is especially harmful. Even small amounts may cause changes to the developing brain so no alcohol is the safest choice for a healthy pregnancy.

Fetal Alcohol Spectrum Disorder (FASD) is an umbrella term used to describe a range of disabilities and a continuum of effects that may arise from prenatal alcohol exposure. FASD is not a clinical diagnosis in itself but represents a range of diagnoses that fall under the spectrum. These diagnoses are Fetal Alcohol Syndrome (FAS), partial Fetal Alcohol Syndrome (pFAS), Alcohol Related Neurodevelopmental Disorders (ARND) and Alcohol Related Birth Defects (ARBD).

Children who have been exposed to alcohol during pregnancy, may have problems with learning, remembering things, attention span (add/adhd), communicating, doing maths and/or controlling their behaviour. A minority of children with FASD may also be small, their faces may look different, and they may have vision and/or hearing problems.

Facts on Alcohol

- alcohol is a poisonous drug
- alcohol has no nutritional value
- the alcoholic content in beer, a glass of wine or a mixed drink is the same
- alcohol causes "blackouts" (the inability to remember what happened while drinking).
- severe physical and/or psychological reactions occur.
- drinking alcohol causes marked changes in behaviour or personality
- injuries to yourself and others may happen while intoxicated