

ALCOHOL

From the moment that man first discovered that the fermented juice from fruits had a kick unequalled by other forms of refreshment, much time and effort has been spent in the production of such spirits. Throughout history, these fermented and eventually distilled spirits have played an important role in many areas of man's life. Serving man's pleasure they have also served another role as a consistent basis of revenue production. While taxes have come and gone on other commodities or services, taxes on alcohol and tobacco have been a primary source of this nation's operational funds.

Earlier films and advertisements emphasize how attitudes towards alcohol change from decade to decade. From full prohibition in the 1920s to a culture in the 1950s where alcohol was looked on humorously, America has yet to make up its mind about the ethics of drinking.

Over time alcohol has been found to be a disinhibitor, a depressant, a cultural influence as well as a toxic substance. These four qualities of alcohol can also lead to problematic levels of use, including abuse and addiction.

"The first time I got drunk, it was like, I like, I liked the feeling so I like tried to drink more and more so like I thought if I drank more, I'd, I'd feel more and more better."

One of the desired effects of alcohol is its ability to lower inhibitions, and so drinkers are more likely to do things they normally wouldn't do.

"Yeah, we're gonna get drunk, of course and we're gonna have a good time and if it comes down to throwing couches in the middle of the street, "Hey" we'll do it. We'll do it. "Hey" we'll do it."

This disinhibition occurs because of alcohol's effect on the prefrontal cortex, that part of the brain that is in charge of decision-making and helps control desires and impulses generated by the parts of the brain that contain emotions.

"And I could be more extroverted and outgoing with alcohol whereas like, you know, I, I, I always felt more shy and introverted, and alcohol allowed me to be loud, boisterous, opinionated, and I didn't have to be held accountable."

"It affects the frontal lobes, the front part of the brain which in human beings is the largest part of the brain. It's 30% of the human brain. Um, that's the part of the brain involved with thoughtfulness, forethought, planning, concentration, organization, thinking before you say things, thinking before you do things.

The disinhibition is caused by alcohol's effect on two neurotransmitters, dopamine and GABA. Alcohol increases the release of dopamine, an excitatory brain chemical that affects the emotional center, resulting in the loss of impulse control. It also enhances the effects of GABA, an inhibitory neurotransmitter in the prefrontal cortex. This disrupts the ability to inhibit socially inappropriate impulses, making one more likely to say or do something stupid.

"I'm sorry but my experience they get violent, they get derogatory. Women, they just drink and they have a good time."

"We just, turn, we turn into just so much fun."

"We get, we become like sort of the victim of the men drinking."

"Yes, yes."

"That's just the way it goes. That's just my experience."

"Hi fellas." "Hi."

Fifty percent of all murders, twenty-five percent of all suicides, and forty percent of all admissions to mental health hospitals occur while under the influence of alcohol, most likely because of the disinhibition, leading to a deadly release of anger and distorted thinking.

“You get in fights. You wake up the next morning, you don’t know how you got home. People tell you about things you did the night before when you were drunk and you can’t remember it, cause you a, you have blackouts, at least I know I did.”

“In trauma surgery I would guess the majority of patients that we see have alcohol involved. In motor vehicle crashes for example, 35% we know are legally drunk when they arrive in the emergency room. For domestic violence it’s much higher. For assaults it’s probably close to 80%.”

20% of male alcoholics and 50% of female alcoholics having been sexually abused often by predators who have lowered their inhibitions by drinking.

“I’ve been raped several times, and in that I think that um, I, I started to drink because it took that away.”

“This is the kids, America. Drink responsibly, please.”

“Now, people feel like taking a drink when they’re excited, you know and want to have fun at a football game or something, not to get down. They actually drink to get up and if you look at most of the quote ‘downers’ there is an initial euphoric stimulative phase, which is then of course followed by a depressant phase.”

Depending on the amount drunk and the makeup of the drinker, the apparent stimulation caused by alcohol starts to be overtaken by its depressant effects within an hour or two. The effects start first in the cerebellum, the part of the brain that controls movement; then in the brain stem which regulates breathing; and finally in the cerebrum, the thinking brain, which controls speech, thought, and vision. It also has a major impact on one’s mood.

“It’s just initially that I feel so, you know, I feel good and then after that it’s just I’m riding along on a, on a, on a physical stupor where I’m just a, inebriated and I can, I just don’t think about what I’m doing anymore.

The use of alcohol as a social lubricant and as a sedative likely started thousands of years ago. Since then, it has been integrated into the culture of most every society.

“When I was coming up, everybody drank. I mean you couldn’t wait. I was told when I was 12 years old that the only way to get hair on your chest was to have a drink. The older people really didn’t so much mind you drinking as long as you didn’t act a fool behind it.”

Germany and the United States are known as mixed drinking cultures, that is, alcohol is used with meals as well as between meals, often in a binge pattern, to get high or just to feel good.

“When I was at a party a day before my birthday and we was drinking Barcardi 151 and I didn’t really like it but I just drunk it anyway cause that’s all there was to drink there and I got drunk, real drunk and started acting stupid.”

Many European countries, such as France and Italy, are known as wet drinking cultures, where most alcohol use is a family affair.

“When we celebrate things in family we have a meal with it. We’re not drinking alcohol just only alcohol, the, you know, the wine and things like this comes with the meal. You know, nobody is going to come

out of that completely drunk. We may be probably happy, because we drink a little bit, but we won't be drunk."

Even though humankind has had thousands of years to assimilate alcohol culturally, it can still cause physical problems because it is a protoplasmic poison, that is, it can kill cells on contact. The body tries to do all it can to rid itself of the toxin.

"By the end of the night I probably had about 15 beers and, and I couldn't walk and I remember throwing up on the way to the car and I threw up in his car and I don't remember that much. All I remember is throwing up."

The liver tries to protect the body from alcohol and by metabolizing it at a faster rate. It does this by creating little metabolic factories which turn the alcohol into carbon dioxide and water. This encourages drinkers to consume more to get the same effects, a process called tolerance.

In a number of cases, with long-term high dose use, the liver is pushed to its limits.

"And your liver expands and it contracts when you drink and you stop drinking. At some point, when you stop, your liver is going to turn into a raisin. It's not going to expand anymore. That's when your liver is fried."

"What I'm holding in my hand are two sections of liver from adults. This is from a healthy, normally functioning liver. This specimen is from a cirrhotic liver. What happens with continual exposure to alcohol and the buildup of the toxins is the hepatocytes die and replacing them you see this bumpy texture, this scar tissue that permeates throughout the liver and eventually you have a completely nonfunctioning organ."

Other organs are affected by long-term, heavy use of alcohol, particularly the brain, heart, the kidneys, and stomach.

"After thirty years of drinking I have developed mitral valve prolapse, a heart condition; um, fibril malaise, the deterioration of my muscles; I have the early stages of osteoporosis; I have an ulcer in my esophagus; my memory is not good at this point of forty-eight days of sobriety. Um, it's hard for me to make decisions, and I probably have lost fifteen years of my natural life, due to my alcoholism."

Because alcohol is toxic to cells, drinking during pregnancy can cause nerve damage or tissue damage to the fetus, consequences that last a life time.

"Wally's birth Mom was a severe alcoholic. She, I, I, I mean, I never got to really meet her, to, to sit down and talk to her um, but I know that when she went into labor she was in a bar and had fallen off a bar stool and she was so intoxicated that they said that when Wally was born he wreaked of alcohol."

There are various patterns of alcohol use that range from abstinence and experimentation to abuse and addiction. It is usually the frequency and amount drunk that determines the severity of the problems.

"Alcohol isn't necessarily an evil drug, that is, if people do not have contra indications to drinking. Contra indications are things like pregnancy, or taking medications that will be affected by alcohol, or somebody who has had alcohol dependence in the past and I would look at them as still in recovery."

Other contraindications for use of alcohol, even in small amounts would be preexisting physical or mental health problems digestive problems like stomach ulcers or hepatitis someone with a high genetic and environmental susceptibility, or a worker in a dangerous profession.

"Alcohol and work does not mix and that's why I've got all my appendages because if I'm going to, if I'm

going drink, I won't work and if I work then I a, I don't drink."

The desired effects of alcohol are dose dependent as are the unwanted side effects. One or two drinks have a number of health benefits such as lowering the risk of heart disease, but as the amount drunk increases, the severity of the effects increases.

Episodic high dose use is often referred to as binge drinking. In surveys it is defined as having 5 or more drinks in one sitting for men, and 4 or more for women, both amounts, if drunk within 2 hours, would push the blood alcohol above the legal limit.

Intoxication that impairs a drinkers' ability to function versus legal intoxication that can get one arrested are often quite different.

"A DUI would definitely curb my drinking. Like, if I got a DUI right now, I would be hating life. You know, that's like a year you don't drive..."

Episodes of intoxication, including those involving high dose use, should not automatically be defined as alcoholism, particularly in high school and college. The real question is, "Are there any serious consequences and will this pattern of drinking continue to progress?"

"We had like ah, a couple gallons of Canadian Mist and we mixed that with Squirt and I drank like a, for like about a fifth of it and just a whole bunch of squirt and just um, I was coughing, I was uh puking blood, I had blood coming out of my nose and I was, all this stuff and I passed out and I didn't wake up for like a day and a half."

"Putting a guy in the ground did nothing for our feelings of us being you know that indestructible you know kids that we were you know that age of, you know, god, we're young and strong and there's nothing we can't do. There are no consequences to this behavior and even seeing it, going to the funeral, watching the hearse drive by, it was like duh, didn't make a connection."

Extreme amounts of alcohol, when the blood alcohol level is 5 or more times the legal limit can be fatal.

"Alcohol poisoning is um, basically a young person's disease and about the only setting where you hear about it is one of these, student's who's pledging a fraternity. The reason that you don't hear about it occurring in older people is that as with all drugs you develop a tolerance."

As alcohol is used to lower inhibitions, as it relaxes and depresses, as the culture encourages heavy drinking, as the toxic effects increase, and as the level of use advances, abuse and addiction become more likely.

"Alcohol was always my primary drug of choice um, and a, and I pretty much from the moment I started drinking, I drank as much as possible. Um, the more I drank, the more I figured out how to continue that on and of course, a being drunk morning, noon, and night lands you in AA pretty quick."

"In spite of all the tremendous, just exciting research that's going on with alcohol in terms of its' brain scans, in terms, in terms of understanding how it effects the development of the brain, understanding how it impacts behavior so much, there's still a tremendous awareness gap or lack of appreciation for the understanding of that knowledge. We have individuals when we do the testing, that show, that shows that 76 percent of those who test as having problems with alcohol, when we ask them about it, they claim that they're not having problems with alcohol. Well that needs to be addressed. That gap needs to be closed so people appreciate their problems much earlier, avail themselves to treatment much earlier and therefore really decrease the devastating consequences that alcohol can have on their lives."