

DRUG ADDICTION AND ADOLESCENCE



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- Adolescence has very often been associated with alcohol and drug abuse. But, before we discuss that let us first understand the meaning of adolescence.
- Adolescence is a period that links between the childhood and adulthood in one's life. The age between 12 to 18 years is usually considered as the adolescent age, which is also known as Teenage.
- The teenage period of life is considered very crucial in a person's life as it is the time when a lot of changes occur physically as well as psychologically. Teenagers are always quite fragile mentally. They are easily motivated or demotivated. This emotional upheaval makes adolescents vulnerable to alcohol and drug use. Once they are exposed to the use of alcohol and drugs, it is highly likely for them to get addicted to them thus resulting in alcohol and drug abuse. Increasing stress and peer pressure on the adolescents today has also led to the drug and alcohol abuse.

- During the teenage period of life, addiction occurs when there is a frequent use of drugs and there will be changes brain functioning over time. The changeover from voluntary to compulsive drug use reproduces changes in the brain's natural inhibition.



- **DrugAddiction word is made by two words :**
- Drug (II) Addiction.
- ***What is means Drug?***
- Any substance, other than food, used in the prevention, diagnosis, all aviation or treatment of a disease is called a drug. A drug may also be defined as a chemical which, when taken in some way after the body

function. Drug is also known as a medicine. Generally, the term drugs applied to any stimulating or depressing substance that can be habituating or addictive.

➤ ***Meaning of Addiction***

- Addiction is the habitual, psychological and physiological dependence on a substance or practice. Which is beyond voluntary control. A person who is habituated to a substance or a practice, especially a harmful one, is called an addict.

➤ ***Drugs Dependence***

- Drugs are prescribed by physicians for the prevention or treatment of diseases, or for increasing the physical and mental performance and are withdrawn as soon as the desired effect is achieved. Repeated use of certain drugs on a periodic or continuous basis may make the body dependence. Such drugs are called psychotropic drugs. They act on the brain and alter behaviour, consciousness and capacity of perception.

Hence, they are also termed mood-altering drugs. Some people start taking drugs without medical advise due to one reason or the other and become drugs dependent.

➤ **Combinations of Drugs and Alcohol:**

- Some addicts use mixtures of drugs to have immediate 'kick' or 'charge'. Simultaneous use of drug and alcohol may produce dangerous effects, including death. When barbiturates and alcohol are taken together, each doubles the effect of the other. A mixture of cocaine and heroin called speed ball, gives spontaneous kick of cocaine and prolonged pleasure of heroin.

➤ **Combination**

Effect

- | | |
|--|--|
| ➤ 1. Alcohol + Barbiturates | Markedly increased depressant
• effect. |
| ➤ 2. Alcohol + Antihistamines | Marked drowsiness |
| ➤ 3. Alcohol + Valium | Dramatically increases sedative
• effect. |
| ➤ 4. Alcohol + Marijuana
▪ or Hashish | Decreased coordination increased
reaction time Impaired judgment. |
| ➤ 5. Alcohol + Aspirin | Increased changes of damage to
• gastric mucosa. |

➤ **How drug addiction Begins ?**

- There are many factors that lead people to drug addiction.
 - **Curiosity** : Frequent references to drugs by public media create curiosity for having a personal experience of the drugs.
 - **Friend's pressure** : Frequent appreciation of drug experience by friends allures others to start the use of drugs.
 - **Frustration and Depression** : Some people start taking drugs to get relief from frustration and depression.
 - **Desire for More Work** : Students sometimes take drugs to keep awake the whole night to prepare for examination. It is not desirable as it may cause mental breakdown.
 - **Looking for a Different World** : A wrong notion that the drugs open up a new world tempts some young octers to start taking-drugs.
 - **Relief from Pain** : A prolonged use of pain-relieving drugs with physician's advise at times leads to addiction.
 - **Family History** : Children may take to drugs by seeing their elders in the family.
 - **Excitement and Adventure** : The young take to drugs to satisfy their instinct for excitement and adventure

➤ **Sources :**

- It is a native of South Africa, where the Red Indian first started smoking. Now the tobacco plant has spread the world over. It has large, quote to Lancelot leaves and terminal clusters of tubular, white or pink flowers.

➤ ***Drugs Addiction***

➤ ***Modes of Use :***

- Tobacco is used for smoking, chewing and snuffing. Its main stimulating component is poisonous volatile alkaloid nicotine, which causes addiction. Nicotine synthesis occurs in the roots of the plant but it is stored in the leaves. The leaves contain 2 to 8% nicotine. Inhaling tobacco smoke from cigars, cigarettes, biddies, pipes and hubble-bubble is called smoking. Cigar is a roll of tobacco leaf. Cigarette is cut tobacco wrapped in paper. Bidi is tobacco wrapped in a piece of leaf. Tobacco smoke is drawn directly from pipe and through water is hubble-bubble. Smoking may give some temporary relief to the strained nerves but in the long run it proves a dangerous health hazard. The quantity of nicotine contained in one cigar may prove fatal if injected intravenously into a person. When smoked only 10% of the smoke is inhaled. Hence, no immediate ill effect is observed. Smokers may develop a physiological craving for nicotine and then they cannot give up smoking.

➤

➤ ***Effect of Nicotine:***

- Nicotine is a low concentration.
 - Stimulates conduction of nerve impulses.
 - Relaxes the muscles.

- Releases adrenaline, increasing heart beat rate and pressure.
- Increased blood pressure due to smoking chances the risk of heart diseases.
- Retards foetal growth in expecting mothers and
- Causes tobacco addiction. High concentration of nicotine paralyses nerve cells.
-

➤ ***Other Harmful components of Tobacco Smoke***

:

- Besides the poisonous nicotine, the tobacco smoke contains carbon-monoxide, polycyclic aromatic hydrocarbons and tar.

➤ ***Other Effects :***

➤ ***Smoking effects economy :***

- A smoker not only waste money, but also runs risk of burns and fires.

➤ ***Smoking mars personality :***

- Teeth may become stained. Lips may get discoloured and breath becomes foul. A person with a cigarette hanging from the mouth look odd.

➤ ***Smoking is annoying to others :***

- Cigarette smoke is quite annoying to non-smokers. It may prove even more harmful to them. A smoker should avoid smoking. When in the company of non smokers. A smoker makes the person nearby persons passive smokers through inhaling smoke released by him.

➤ ***Alcohol***

➤ **Sources :**

- Ethyl alcohol, or ethanol, flammable, colourless liquid having a penetrating odour and burning taste. It is one of the products of the distillation of fermented grains, fruit juices and starches with the help of yeast enzymes. It is the principal constituent and the intoxicating principle of wines.

➤ **Modes of Use :**

- Alcohol is taken in low concentration, as the beer, toddy and wine and in relatively high concentration as arrack, brandy, whisky, rum, gin, vodka etc.

➤ **Addiction :**

- Addiction to alcohol is called alcoholism. Alcoholics are found in all society section of society. Alcohol causes intoxication and thus, acts as a poison. They drinkers begin with small doses, but many of them soon start consuming large doses and become addicts. By the time they realize that drinking is adversely affecting them, it is too late to give it up.

➤ **Why People Take to Drinking :**

- The drinkers offer one or more of the following reasons for starting drinking.
- Social pressure (ii) desire for excitement (iii) feeling of independence (iv) Liking of taste (v) desire to escape from such realities of life as disappointments and failures and (vi) desire to offset the hardship

Opioids and Adolescents

Why People Take to Drinking

- (i) Social pressure
- (ii) desire for excitement
- (iii) feeling of independence
- (iv) Liking of taste
- (v) desire to escape from such realities of life as disappointments and failures
- (vi) desire to offset the hardships and monotony of daily life.



- **Opioids** are substances that act on opioid receptors to produce morphine-like effects.^[2] Medically they are primarily used for pain relief, including anesthesia.^[3] Other medical uses include suppression of diarrhea, replacement therapy for opioid use disorder, reversing opioid overdose, suppressing cough, suppressing opioid-induced constipation,^[3] as well as for executions in the United States.

Extremely potent opioids such as carfentanil are only approved for veterinary use. Opioids are also frequently used non-medically for their euphoric effects or to prevent withdrawal.^[7]

- Side effects of opioids may include itchiness, sedation, nausea, respiratory depression, constipation, and euphoria. Long-term use can cause tolerance, meaning that increased doses are required to achieve the same effect, and physical dependence, meaning that abruptly discontinuing the drug leads to unpleasant withdrawal symptoms.^[8] The euphoria attracts recreational use and frequent, escalating recreational use of opioids typically results in addiction. An overdose or concurrent use with other depressant drugs like benzodiazepines commonly results in death from respiratory depression.



List of Extended-Release and Long-Acting Opioid Products Required to Have an Opioid REMS

	Trade Name	Generic Name	Sponsor
1	Avinza	Morphine sulfate extended-release	Pfizer

		capsules	
2	Butrans	Buprenorphine transdermal system	Purdue Pharma
3	Dolophine	Methadone hydrochloride tablets	Roxane
4	Duragesic	Fentanyl transdermal system	Janssen Pharmaceuticals
5	**Embeda	Morphine sulfate and naltrexone extended-release capsules	Pfizer
6	Exalgo	Hydromorphone hydrochloride extended-release tablets	Mallinckrodt
7	Kadian	Morphine sulfate extended-release capsules	Actavis
8	MS Contin	Morphine sulfate controlled-release tablets	Purdue Pharma
9	Nucynta ER	Tapentadol extended-release oral tablets	Janssen Pharmaceuticals
10	Opana ER	Oxymorphone hydrochloride extended-release tablets	Endo Pharmaceuticals
11	OxyContin	Oxycodone hydrochloride controlled-release tablets	Purdue Pharma
12	*Palladone	Hydromorphone hydrochloride extended-release capsules	Purdue Pharma

*No longer being marketed, but is still approved.

**Not currently available or marketed due to a voluntary recall, but is still approved.



HEROIN

What is heroin?



Heroin is an opioid drug made from morphine, a natural substance taken from the seed pod of the various opium poppy plants grown in Southeast and Southwest Asia, Mexico, and Colombia. Heroin can be a white or brown powder, or a black sticky substance known as black tar heroin. Other common names for heroin include *big H*, *horse*, *hell dust*, and *smack*.

➤ How do people use heroin?

People inject, sniff, snort, or smoke heroin. Some people mix heroin with crack cocaine, a practice called *speedballing*.

What are the effects of heroin?

Heroin enters the brain rapidly and binds to opioid receptors on cells located in many areas, especially those involved in feelings of pain and pleasure and in controlling heart rate, sleeping, and breathing.

Prescription Opioids and Heroin

Prescription opioid pain medicines such as OxyContin® and Vicodin® have effects similar to heroin. Research suggests that misuse of these drugs may open the door to heroin use. Data from 2011 showed that an estimated 4 to 6 percent who misuse prescription opioids switch to heroin^{1,6,7} and about 80 percent of people who used heroin first misused prescription opioids.^{1,6,7} More recent data suggest that heroin is frequently the first opioid people use. In a study of those entering treatment for opioid

use disorder, approximately one-third reported heroin as the first opioid they used regularly to get high.⁸

Short-Term Effects

People who use heroin report feeling a "rush" (a surge of pleasure, or euphoria). However, there are other common effects, including:

- dry mouth
- warm flushing of the skin
- heavy feeling in the arms and legs
- nausea and vomiting
- severe itching
- clouded mental functioning
- going "on the nod," a back-and-forth state of being conscious and semiconscious

Long-Term Effects

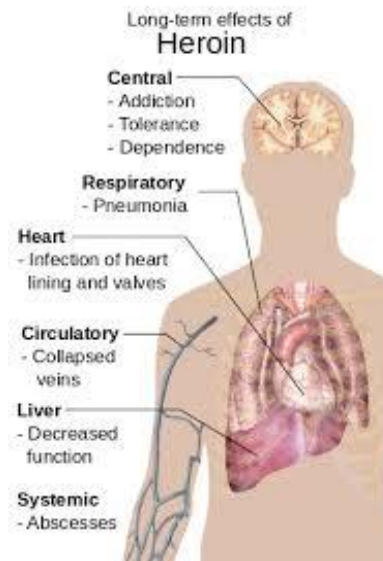
People who use heroin over the long term may develop:

- insomnia
- collapsed veins for people who inject the drug
- damaged tissue inside the nose for people who sniff or snort it
- infection of the heart lining and valves
- abscesses (swollen tissue filled with pus)
- constipation and stomach cramping
- liver and kidney disease

- lung complications, including pneumonia
- mental disorders such as depression and antisocial personality disorder
- sexual dysfunction for men
- irregular menstrual cycles for women

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Heroin	Past Year	0.30	0.10	0.60	0.30
Pain Relievers	Past Year	4.10	3.10	7.20	3.70

National Survey on Drug Use and Health: Trends in Prevalence of Various Drugs for Ages 12 or Older, Ages 12 to 17, Ages 18 to 25, and Ages 26 or Older; 2017 (in percent)*



Cannabinoids

Cannabinoids are the most widely abused drugs in the world after alcohol. These drugs are gaining legal acceptance, but are still dangerous.

Cannabinoid Addiction and Abuse

Cannabinoids are drugs that share active agents found in Cannabis (Marijuana) or were synthetically developed from those drugs. They are increasingly becoming legal, holding a potential problem for a rise in addiction for all age

Common Types of Cannabinoids Found in Cannabis

1. Tetrahydrocannabinolic Acid (THCA)
2. Tetrahydrocannabinol (THC)
3. Cannabidiolic Acid (CBDA)
4. Cannabidiol (CBD)
5. Cannabinol (CBN)
6. Cannabigerol (CBG)
7. Cannabichromene (CBC)
8. Tetrahydrocannabivarin (THCV)
9. Cannabidivarin (CBDV)

Side Effects of Cannabinoids

Although there are studies that show potential benefits from Cannabinoids, there are many side effects from taking the drug. This shows that an addiction to this natural drug can be hazardous.

Some side effects include:

- Rapid heart beat
- Dizziness
- Depression
- Hallucination
- Low blood pressure
- Paranoia
- Panic attacks
- Food craving

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Marijuana/ Hashish	Lifetime	45.20	15.30	52.70	47.50
	Past Year	15.00	12.40	34.90	12.20
	Past Month	9.60	6.50	22.10	7.90

National Survey on Drug Use and Health: Trends in Prevalence of Marijuana/ Hashish for Ages 12 or Older, Ages 12 to 17, Ages 18 to 25, and Ages 26 or Older; 2017 (in percent)*



COCAINE



Understanding Cocaine

Cocaine is a white powdery substance that reacts with the body's central nervous system, producing energy and euphoria. It is most commonly snorted, but can also be smoked (also known as "freebasing") or dissolved in water and injected. Cocaine is also referred to as coke, blow or powder.

- Although most people today recognize that cocaine is addictive, thousands are still drawn to it. As many as 1,800 Americans experiment with cocaine for the first time each day

Cocaine is a highly addictive drug that ups your levels of alertness, attention, and energy. You may hear it called a stimulant. It's made from the coca plant, which is native to South America. It's illegal in the U.S. Other names for it include:

- Coke
- Snow
- Rock
- Blow

LOW TO MODERATE DOSES

Some of the effects that may be experienced after taking cocaine include:

- immediate rush, feelings of euphoria

- feelings of invincibility
- a sense of wellbeing
- increased talkativeness or quiet contemplation and rapture
- increased confidence and a feeling of invincibility
- feelings of great physical strength and mental capacity
- increased libido
- anxiety, agitation and panic
- paranoia
- unpredictable violent/aggressive behaviour
- feeling more awake, reduced need for sleep
- increased performance on simple tasks
- enlarged (dilated) pupils
- dry mouth
- increased breathing rate
- increased blood pressure and heart rate (after initial slowing)
- reduced appetite
- increased body temperature
- increased strength and energy
- indifference to pain and localised pain relief.

Higher doses

A high dose of cocaine can cause a person to overdose. This means that a person has taken more cocaine than their body can cope with. Not knowing the strength or purity of the cocaine increases the risk of overdose.

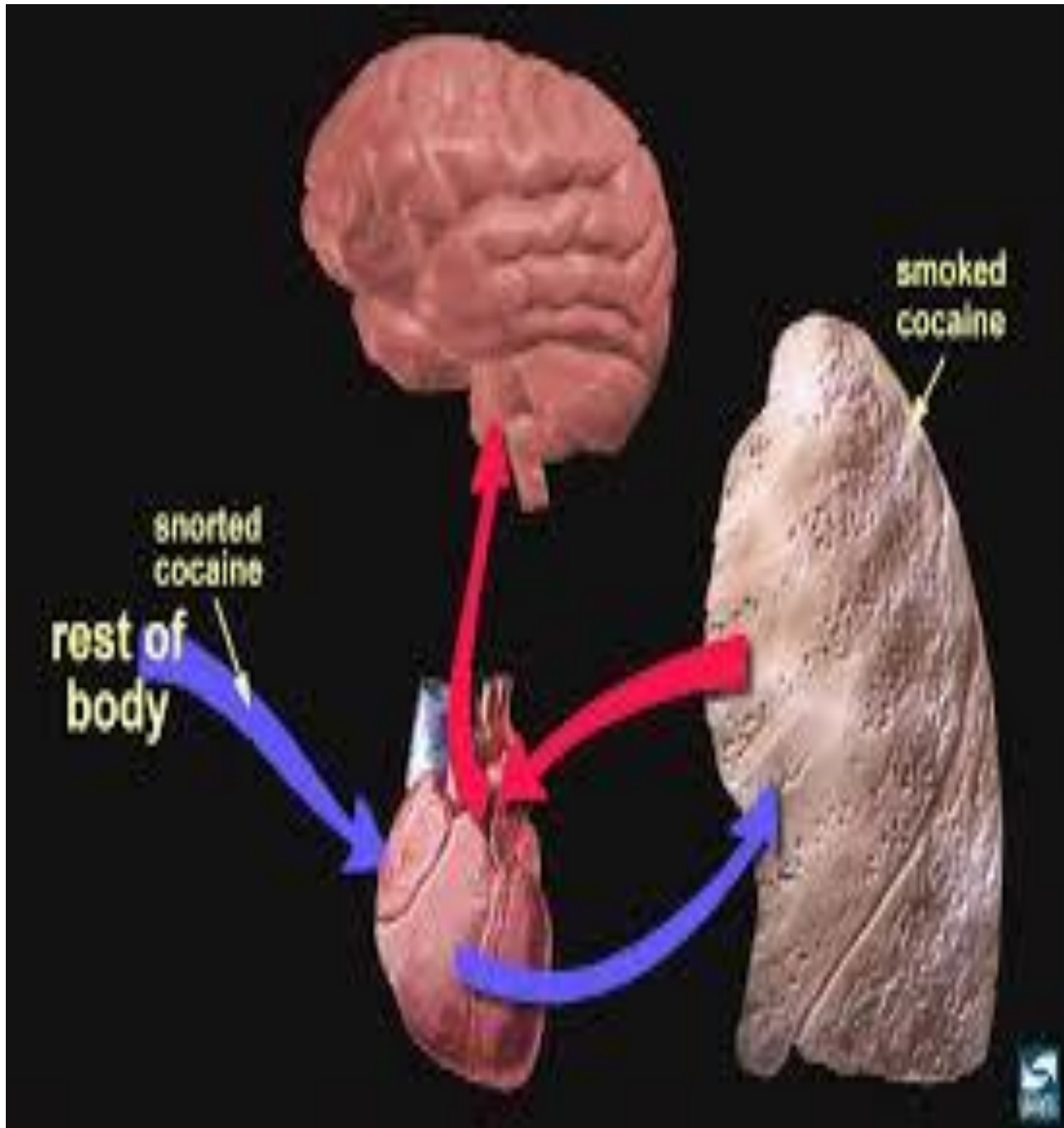
Injecting cocaine increases the risk of overdose due to large amounts of the drug entering the blood stream and quickly travelling to the brain.

Higher doses of cocaine can produce symptoms, including:

- anxiety

- sleep disorders
- paranoia
- tremors and muscle twitches
- nausea and vomiting
- rapid and weak pulse
- chest pain
- heart attack
- kidney failure
- hypothermia (low body temperature)
- seizures
- increased heart rate and body temperature
- brain haemorrhage
- stroke and convulsions.

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Cocaine	Lifetime	14.90	0.70	12.00	17.00
	Past Year	2.20	0.50	6.20	1.70
	Past Month	0.80	0.10	1.90	0.70
Crack Cocaine	Lifetime	3.50	0.10	1.30	4.30



Many of these can lead to coma and death

TOBACCO



- Tobacco leaves
- **WHAT IS TOBACCO?**

Tobacco is a plant grown for its leaves, which are dried and fermented before being put in tobacco products. Tobacco contains nicotine, an ingredient that can lead to addiction, which is why so many people who use tobacco find it difficult to quit. There are also many other potentially harmful chemicals found in tobacco or created by burning it.

How do people use tobacco?

People can smoke, chew, or sniff tobacco. Smoked tobacco products include cigarettes, cigars, bidis, and kreteks. Some people also smoke loose tobacco in a pipe or hookah (water.

How does tobacco affect the brain?

The nicotine in any tobacco product readily absorbs into the blood when a person uses it. Upon entering the blood, nicotine immediately stimulates the adrenal glands to release the hormone epinephrine (adrenaline). Epinephrine stimulates the central nervous system and increases blood pressure, breathing, and heart rate. As with drugs such as cocaine and heroin, nicotine activates the brain's reward circuits and also increases levels of the chemical messenger *dopamine*, which reinforces rewarding behaviors. Studies suggest that other chemicals in tobacco smoke, such as acetaldehyde, may enhance nicotine's effects on the brain.



Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Cigarettes (any use)	Lifetime	57.10	10.80	49.50	63.80

ALCOHOL



How alcohol affects your health

Many of us drink alcohol to relax and socialise. Alcohol can be part of a healthy lifestyle if you drink in moderation and also exercise and have a good diet. But drinking too much can affect your physical and mental health.

Short-term health effects of alcohol

Nearly a third of Australians drink more than they should on a single occasion (known as binge drinking). In the short term, drinking too much alcohol can lead to:

- dizziness
- lack of judgement
- loss of coordination
- memory loss
- vomiting
- headaches and hangovers
- accidental injury (to yourself or others)
- being in a road accident
- deliberately harming yourself or others
- alcohol poisoning (which can be fatal)

Long-term health effects of alcohol

Drinking more than 2 standard drinks a day can seriously affect your health over your lifetime. It can lead to dependence and addiction, especially in

people who have depression or anxiety, and can increase your risk of suicide.

Here is how regular heavy drinking can affect your body long term.

Brain: Drinking too much can affect your concentration, judgement, mood and memory. It increases your risk of having a stroke and developing dementia.

Heart: Heavy drinking increases your blood pressure and can lead to heart damage and heart attacks.

Liver: Drinking 3 to 4 standard drinks a day increases your risk of developing liver cancer. Long-term heavy drinking also puts you at increased risk of liver cirrhosis (scarring) and death.

Stomach: Drinking even 1 to 2 standard drinks a day increases your risk of stomach and bowel cancer, as well as stomach ulcers.

Fertility: Regular heavy drinking reduces men's testosterone levels, sperm count and fertility. For women, drinking too much can affect their periods.

Drug	Time Period	Ages 12 or Older	Ages 12 to 17	Ages 18 to 25	Ages 26 or Older
Alcohol	Lifetime	80.90	27.10	81.10	87.10
	Past Year	65.70	21.90	74.00	69.50
	Past Month	51.70	9.90	56.30	55.80



4 Ways to Prevent Drug Addiction

To begin a discussion about **ways to prevent drug addiction**, it's important to understand why people get addicted to drugs in the first place

From a scientific standpoint, the following six factors have an impact on why many people have an aversion to substance addiction:

1. Genetics
2. Social Environment
3. Age of First Use
4. Mental Illness
5. Early Childhood Trauma and Adult Trauma

1. Insist on healthy lifestyles in the form of healthy meals.

Scientists have long since proven that unhealthy eating habits lead to other unhealthy habits. Unhealthy living begets unhealthy living, and so on. When young people are exposed to healthy eating habits, they are less likely to walk down a path of substance abuse.

2. Insist on *regular* and *varied* family time.

Here's another interesting tool that most families would not think of. Research from the National Association for Children of Alcoholics indicates that children of parents who *spend a lot of time with them* are less likely to become addicts later on in life.

3. Get the kids involved in family projects.

Kids want to help out, even if they don't seem to act like it. Getting them involved in family projects grows morality and a sense of teamwork in the family, and that is a natural deterrent to substance abuse.

4. Cut the electronics down a notch.

Research has already proven that excessive internet stimulation not only creates addictive tendencies itself, but it also exposes young people to imagery and video content that glamorizes drug use.

