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## A Review on Effect of Complication of Drug Addiction on Human Health

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### Introduction

National Drug Abuse Survey [Ray.R.et al, 2004] is the first systematic effort to document the prevalence of drug abuse nationwide. Alcohol (21.4%) was the main ingredient (excluding tobacco) followed by marijuana (3.0%) and opioids (0.7%). Seventeen to 26% of alcohol users qualify for an ICD 10 trust rating, which translates into a standard 4% standard. There has been a significant difference in alcohol consumption in various provinces of India (current consumption from 7% low in the western province of Gujarat (subject to Prohibition) to 75% in the northeastern province of Arunachal Pradesh. Tobacco use prevalence was 55.8 % of males, with high use in the 41-50 age group.

National study on the prevalence of drug abuse.National National Family Health Survey (NFHS) [Kumar.M.et. al, 2002] provides information on the use of tobacco and alcohol. The change in styles between NFHS 2 and NFHS 3 reflects an increase in alcohol use among men from NFHS 2, as well as an increase in tobacco use among women.

The Drug Abuse Monitoring System, which examined the main substance abuse in patients' clinics found that the main causes were alcohol (43.9%), opioids (26%) and Studies between 1968 and 2000 focused on alcohol use. They have varied according to the tested population figures (from 115 to 16,725), sample procedures (simple, objective and independent), research focus (alcohol use, alcohol abuse, alcohol abuse, drunkenness, drunkenness, alcohol and drug abuse). and alcohol dependence), location (urban, rural or both, Slums), on the assessment tools used (list of test questions and schedules, low-level interview, quantity frequency indicator, Michigan Alcohol Screening Test (MAST) etc.). Increases in the 'use / abuse' of alcohol in different regions have therefore varied from 167/1000 to 370/1000; 'alcohol addiction' or 'alcohol abuse' or 'chronic alcoholism' from 2.36 / 1000 to 34.5 / 1000; alcohol and drug abuse / abuse from 21.4 to 28.8 / 1000. A meta-analysis of Reddy and Chandrashekar [Reddy M, E.et al, 1997] (1998) revealed a total of 6.9 / 1000 drug use in India with an urban and rural population of 5.8 and 7.3 / 1000 population . Rates between men and women were 11.9 and 1.7% respectively.

Regional epidemiological research on drug use: Summary Regional studies between 2001 and 2007 continue to show this variability. At the moment, the interest is to look at the harmful use of alcohol. A study in a rural area of southern India [JohanA.et al, 2009] showed that 14.2% of the people surveyed were using harmful alcohol in AUDIT. A similar study conducted at a tertiary hospital revealed that 17.6% admitted to patients consuming dangerous alcohol.

The only case study on alcohol use from Delhi [Mohan D.et al, 2007] found that the annual incidence of alcohol-free and alcohol-dependent alcohol abuse among men was 3 and 2 out of 1000 people in a total of 2,937 households.

Addiction is a neuropsychological disorder characterized by persistent drug use, despite serious injuries and other side effects. Repeated drug use often alters brain function in ways that promote cravings, and weaken self-control.

Drug addiction has become a global epidemic and is a major cause of death. The global problem of addiction and substance abuse causes millions and millions of new HIV cases every year. In recent years, India is experiencing a growing trend toward drug addiction. The most common drug use in India is alcohol, followed by marijuana and opiates. Drug use, whether legal or illegal, causes serious health problems for individuals. A National Drug Abuse Survey in India has shown that the increase in male drug use in society as a whole is significant. Drug use among women exists. Despite the fact that more men use drugs than women, the impact of drug use is often greater for women, because women do not have access to drug-based care. Economic pressures, disturbed family environment, violence, and psychological problems are just some of the effects of drug abuse in the family. Adolescent drug abuse is another major concern because more than half of people with substance abuse problems are addicted to drugs before the age of 15. Currently, there is a huge gap in service delivery. The current paper highlights the causes of substance abuse, and describes the treatment and prevention of substance abuse and addiction in order to effectively manage the

### Causes of drug addiction

The reaction of drugs on a human mind varies widely from person to person.Each person's body and mind works differently. Some people love to use drugs, and others hate it after their first try.

Rather than a single factor, multiple factors contribute to the addiction to drugs.

- **Genetics & Family History** – Your genes may mean a greater predisposition to addiction. Your body and brain react to a particular drug the way your ancestors reacted to it. If your parents or their parents had a history with drug abuse, your chances of being addicted to drugs increase drastically.

- *Environmental Cause* – Your environment also plays a vital role in developing drug dependence. Because the environment influences behaviour, if a child grows up in a home with a drug addict, it's highly likely that he is going to struggle with drugs too. Other environmental factors which can contribute to drug addiction include the following –
  - Abuse of drugs among friends and peers
  - Lack of social support
  - Troubled relationships
  - Stress in life
  - Low socioeconomic status
- *Psychological Cause* – Although genetics and environment play a significant role in drug addiction, psychological factors also contribute to the problem. Sexual or physical abuse, negligence from parents and peers, domestic violence, everything can lead to psychological stress. And people turn to drugs to let off this stress. Over time, this misuse of drugs can become an addiction.
- *Other psychological causes*
  - Mental disorder such as depression
  - Lack of friends in school or any social setting
  - Huge academic pressure
  - Traumatic events

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### **Types of Drug Addiction:**

**There are different types of drugs in the market, and each type of drug causes different kinds of effects in your body.**

#### *Opioids*

*Opioids, also called narcotic drugs, are often used as a pain reliever. They work by lowering the pain signals received by your brain. They also change the way your brain responds to pain. Opioids are usually safe to use. But if consumed in an uncontrolled way, opioids can become very addictive. Opioid drugs alter brain chemistry by influencing dopamine release and hijacking the reward pathway. Dopamine is a neurotransmitter (chemical messenger) that makes you feel good. After too much use of opioids, your brain starts to depend on it and stops producing its own.*

#### **Commonly Abused Opioids**

- Heroin
- Morphine
- Fentanyl
- Codeine
- Hydrocodone
- Hydromorphone
- Methadone
- Oxycodone
- Oxymoronic
- Paregoric
- Sufentanil
- Tramadol

#### **Short-Term Effects of Opioids**

- Relaxation
- Euphoria
- Drowsiness
- Nausea, vomiting
- Physical agitation
- Slurred Speech
- Shallow breathing
- Anxiety attack

#### *Depressants*

*Common depressants are prescribed to help with symptoms like insomnia, anxiety, panic and acute stress reactions. It works by slowing down the activities of the brain and putting the body in a state of relaxation. Depressants can build up drug tolerance quickly. And because of the way it affects brain chemistry, if regularly without a doctor's prescribed guideline, it can lead to addiction.[2]*

#### **Commonly Used Depressants**

- Barbiturates
- Benzodiazepines
- GHB
- Alcohol

**Short-term Effects of Depressants**

- Enhanced mood
- Reduced anxiety
- Reduced reaction time
- Weakness, headache and lightheadedness
- Impaired judgment
- Slurred speech
- Slowed breathing
- Amnesia

*Stimulants*

*Stimulants are a category of substances which include both medical drugs, illegal street drugs and commonly used substances such as caffeine and nicotine. Stimulants affect the brain by temporarily increasing functions like awareness, alertness, energy and mood. Stimulants also increase the level of dopamine inside the mind. It gives you a sensation of euphoria. This sensation makes it more difficult to stop the harmful pattern of*

**Commonly Used Stimulants**

- Cocaine
- Amphetamine (e.g. Adderall)
- Caffeine
- Methamphetamine (e.g. Desoxyn)
- Methylphenidate (e.g. Ritalin, Concerta)

Stimulant users tend to develop rapid drug tolerance. Tolerance occurs when people have to take more of a substance to achieve the same level of high. This type of behaviour also increases the risk of overdose.

**Short-Term Effects of Stimulants**

- Euphoria
- Increased energy, sociability
- Increased vigilance
- Reduced appetite
- Rapid heart rate
- Increased blood pressure
- High body temperature
- Muscle shake or tremors

*Hallucinogens*

*Hallucinogens are a type of drug which alters the perception of reality and causes hallucinations. There are two types of hallucinogens: classic hallucinogens (psychedelics) and dissociative hallucinogens. Hallucinogens are sometimes considered less dangerous than other kinds of drugs like heroin. But hallucinogens can cause dependency, addiction, and long term adverse side effects.*

**Commonly used hallucination**

- LSD
- Psilocybin (mushrooms)
- DMT
- Mescaline (peyote)
- PCP (phencyclidine)
- Salvia
- Ketamine

Hallucinogens cause people to see and hear things that feel real but don't exist. For some people, these cause intense anxiety, panic attack and terrifying thoughts.

**Short-Term Effects of Hallucinogens**

- Altered perceptions
- Sense of relaxation, well-being
- Unclear thinking
- Anxiety
- Excessive sweating
- Elevated heart rate
- Increased body temperature
- Nausea
- Numbness

*Cannabis*

Most commonly known as "weed" or "marijuana", cannabis can be a mixture of leaves, flowers or stems from cannabis plants. THC (tetrahydrocannabinol) is the main active component of cannabis that leads to drug abuse. Cannabis produces relaxation sensation, mild euphoria,

increased appetite and distorted perception of space and time. If used for a prolonged time, you can develop an addiction to cannabis. Research has also shown that excessive use of cannabis can cause brain damage and memory impairment.

#### **Commonly Used Forms of Cannabis**

- Marijuana (dried flowering tops and leaves)
- Hashish (dried cannabis resin and compressed flowers)
- Hash oil (extracted THC from hashish)

#### **Short-term Effects of Cannabis**

- Relaxation
- Impaired memory
- Dry mouth
- Poor coordination
- Relief from stress
- Paranoia
- Altered judgment
- Increased appetite
- Euphoria
- Bloodshot eyes

#### *Signs of Drug Addiction*

The signs and symptoms of drug addictions vary, and some drugs have a higher risk of getting addicted to them than others. Here are some of the symptoms of drug dependence:

- Feeling an intense urge to use drugs or medication frequently. Maybe several times a day.
- You need more substance to get the same effect because you built a tolerance for the drug.
- You feel alive when you are on the drug. When the drug wears off, you feel shaky, depressed, and confused. You may not feel hunger and may have headaches or run a fever.
- You can't stop yourself from taking the drug.
- You are doing everything you can to make sure you get drug supplies, even if you can't afford it.
- Your social life is a wreck. You have a hard time bonding with co-workers, friends or family.
- Your personal health declines. For example, you may start to gain or lose weight. You have bad breath or red eyes.
- You start to steal money to buy drugs.
- You experience withdrawal symptoms when you stop taking drugs.

#### **Prevention From Drug Addiction**

**When it comes to prevention from drug abuse, there is no foolproof way. But you can certainly do some things that will help you protect yourself and your loved ones from becoming addicted to drugs.**

- *Educate yourself* – Learn about the physical, biological, and social effects of drug misuse. Evaluate the risk factors like losing a job, isolation from society, dropping out of college. No one sets out to be addicted to drugs, so be careful in thinking using a drug “just once” will not be harmful.
- *Learn healthy ways to cope with stress* – Stress is one of the primary reasons that drive people to drug misuse.
- *In this fast-paced world, stress is inevitable* – And sometimes to escape from stress, people turn to alcohol and drugs. In the end, this can make life more miserable and stressful. To avoid this, you should learn to handle stress without using drugs. Take up exercising, read a book, volunteer for a good cause, create something. Anything positive that will give you a sense of fulfillment and take your mind away from using drugs to relieve stress.
- *Develop close bonds with family* – Research has shown that people who have a close relationship with their families are less likely to abuse drugs. A loving family works as a support system and helps you deal with your pressures in life. It helps you to keep a distance from addictive substances.
- *Choose your friends mindfully* – Teenagers and young adults are easily influenced by others. Often they start to explore different addictive drugs to impress their friends and portray themselves as “cool”. Find friends who won't force you to do harmful things or be okay with possibly facing rejection when you turn down drugs.
- *Develop a healthy lifestyle* – There is no better prevention of drug problems than adopting a healthy lifestyle. Being active and fit makes it easier to manage stress. This, in turn, helps to reduce the urge to use drugs or any other harmful substances to manage stress.

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## **Drug Addiction Treatment**

*There is no cure for drug addiction. But there are some treatment procedures which can help you to overcome addiction and stay clean. The first step towards treatment is acknowledging that you have a drug abuse problem in the first place. Once you recognise the problem, there is a wide range of treatments that can be possible. Most people go through a combination of different types of treatments.*

### *Detoxification*

*Detoxification is typically the first step of treatment. The goal is to stop the drug, while managing withdrawal symptoms. Sometimes this may be a taper, or reducing drug intake slowly and eventually stopping it. While in detoxification, it is natural to see withdrawal symptoms. Withdrawal symptoms are different for different kinds of drugs and require different approaches. It is best to reduce the dose of the drug gradually or have a medication that helps mitigate withdrawal symptoms.*

### *Behavioural Therapy*

*Behavioural therapy is the standard treatment for drug addiction after detoxification. It can be done by one-on-one sessions, in a group, or family basis, depending on the requirements. Here are the different types of behavioural therapies.*

#### *Cognitive-behavioural therapy (CBT)*

*It helps the individual to recognise and change thinking towards drug abuse.*

#### *Multidimensional family therapy (MDFT)*

*This kind of treatment is designed to help the family, particularly in addressing youth problems and disorders.*

#### *Motivational interviewing (MI)*

*It helps to encourage the individual to resolve ambivalent feelings and find internal motivation for change.*

### *Self Help Groups*

*Being a part of a self-help group is very beneficial in recovering from drug dependence. It involves meeting with other individuals with similar addictive disorders and sharing experiences with each other. It boosts motivation and reduces the feeling of loneliness. These self-help groups also become a great support system for its members.*

### *Medication*

*Medication is not a standalone treatment for drug addiction. However, it may help during the detoxification to manage withdrawal symptoms. A person may take medication to prevent drug relapse and reduce cravings in the long-term. But it should always be coupled with other methods such as behavioural therapy or rehabilitation. Drug addiction has become a serious concern worldwide. It affects not only the victim but also their family, friends, and entire society. Drug addiction treatment is possible. Treatment is challenging but effective.*

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## **Effects of Drug Addiction**

**Drugs are chemicals which affect the brain and body. Different drugs have different compounds and affect the human body differently. Effects of drug abuse also depend on the way you consume it. There are few ways a drug can be consumed, like injection, inhalation and ingestion.[1]**

*If the drug is injected into the bloodstream, it works almost instantaneously. But when ingested, it takes time for the drug to get into the bloodstream. According to the WHO, around 31 million people worldwide have drug abuse disorder, and among them, 11 million consume drugs by injecting it.*

### *Effect of Drug Addiction on the Brain*

*All types of drugs affect the brain's reward system. Drugs physically change how your brain functions and interfere with the ability to make decisions.*

*Misuse of drugs can also lead to various behavioural changes and problems, both short-term and long-term.*

*Here are some effects of drug addiction in your brain:*

- Altered brain functions
- Loss of rational decision-making
- Loss of self-control
- Drug viewed as necessary to survival
- Inability to feel pleasure without drugs

### *Effect of Drug Addiction on the Body*

*Prolonged use of drugs not only affects your mind, but it also affects many other organs in the human body. Here are some common effects of drug misuse on the human body:*

- Drug abuse damages the immune system and makes you vulnerable to infections.
- It causes heart conditions, including abnormal heart rates, heart attacks and the collapse of veins.
- Drugs cause nausea, abdominal pain and vomiting.
- Some drugs increase the risk of liver failure due to the excessive strain on the liver.
- Misuse of drug abuse causes permanent brain damage, including memory loss, and problems with decision-making and focus.

### *Social Effects*

*Apart from these, there are social effects of drug abuse that are also damaging:*

- Damaged relationships with family and friends
- Losing job
- Financial trouble
- Sexual abuse
- Accidents and injuries
- Legal consequences (e.g. going to jail).

**Drugs - Drugs are chemical substances that can alter how your mind and body work which include OTC (over the counter drug) prescription drug tobacco, alcohol illegal drugs .**

1) Legal drugs - drugs which can be legally sold, used or possessed with restriction for example alcohol, tobacco , caffeine , volatile substance , OTC (over the counter ) drug and prescription medicine. Top 8 legal drugs

- Alcohol
- nicotine
- Benzodiazepines
- Opioids
- cough syrup
- ADHD medicine
- anabolic steroid
- caffeine

1. Alcohol- alcohol is a legal drug then it is a toxic substance when it comes to developing fetuses if the mother consumes alcohol during pregnancy. Alcoholism can have a devastating effect on an alcoholic person , a person's physical well being and also his /her ability to function interpersonally and at work .
2. Nicotine- Nicotine is an addictive substance found in tobacco products. In America approximately 15 million people are addicted to tobacco products such as cigarettes, cigars , chewing tobacco and snuff. Nicotine addiction is the major type of addiction in America .Although nicotine is stimulant, nicotine does not form the high level of energy or euphoria that drugs like cocaine do. Nicotine stimulates adrenal gland so that it causes a rise in blood pressure and respiration.
3. Benzodiazepines- It is another type of depressant. Drugs in these classes include diazepam, alprazolam like tranquilizers; these drugs are prescribed for anxiety and insomnia and panic attack. These drugs only prescribe for short term if you use them for long term patients will have withdrawal symptoms when they stop taking drugs.Examples of benzodiazepines include sedatives like diazepam , alprazolam , lorazepam, clonazepam and chlordiazepoxide.
4. Opioids- Among all opioids codeine is habit forming and its long term use leads to addiction. Opioids are prescribed by a doctor to help relieve pain. Addiction is a disease that can affect your brain and behavior. Opioids are used in the following treatment: toothaches and dental procedure, injuries, surgeries and cancer
5. Cough syrup- In cough syrup number of Ingredients found such as codeine,, an opiate. Codeine acts on the central nervous system to produce an analgesic effect. Codeine is a relatively weak opioid.
6. .ADHD- Attention deficit hyperactivity disorder (ADHD) is a neurological disorder that is diagnosed in childhood and may last into adulthood. ADHD and Addiction can be closely related. Number of studies have shown a strong relation between ADHD , drug abuse , and alcoholism . Others may prescribe stimulants to treat ADHD and become hooked.
7. .Anabolic steroid- Anabolic steroid are the drug most often used by bodybuilder and other athletes which make them abuse this drug group produce emotional symptoms like paranoia and aggression as well as severe long term effects like organ failure infertile
8. .Caffeine- caffeine is a chemical substance present in coffee , tea , soda many people consume coffee, tea , and soda. When they consume in excess the substance are habit forming and produce palpitation irritability insomnia tremors significant anxiety

2) Illegal drug - Illegal drug are those drug that can be sold posses or distribution of which is unlawful as per the controlled substance act (21 use )

Classification of illegal drug

Class in misuse	Of drug act	Comments
Cannabis.	C	-
Barbiturates.	B	-
Tobacco.	-	UK
Heroin.	A	Crude diamorphine
Amphetamines.	B	-
Cocaine.	A	Includes crack cocaine

Ecstasy.	A	Essentially 3,4 methylenedioxy- N methyl amphetamines (MDMA)
4-MTA.	A	4-methylthioamphetamine
LSD.	A	Lysergic acid , diethylamide
Street methadone.	A	Diverted prescribed methadone
Methylphenidate.	B	Example- ritalin
Buprenorphine.	C	Example- temgesic, subutex
GHB.	C	Gamma-4 hydroxy butyric acid
Anabolic steroid.	C	-
Alcohol.	-	Not controlled if over 18 years in UK
Alkyl nitrites.	-	Not controlled
Solvents	-	Not controlled; sales restricted

1.Cannabis- cannabis scientific name is tetrahydrocannabinol (THC) synonym of cannabis merijaun is the most commonly used illicit drug. Smoking, eating a vaporized form of drug by inhalation are the most common uses of cannabis.

Sign and symptoms

- Dry mouth
- increased Blood pressure and Heart rate
- decrease coordination
- anxiety
- slowed reaction time
- cannabis odour on close and yellow fingertips

2.Barbiturate - barbiturates are central neural system depressant it is prescription drug it include pycobarbitol and phenobarbital these drug are use and misuse to fill the sense of relaxation or desire to forget stress , depression , related thought and filling

Sign and symptoms

- Drowsiness
- memory problem
- lack of color accident
- lack of inhibition
- reduce BP
- slowed breathing
- dizziness
- falls and accident

3.Hallucinogens - There are naturally occurring hallucinogens like certain mushrooms and also it contains LSD mescaline . These drugs have an ability to alter perception of the user so can be proven as dangerous. . The examples of common hallucinogens are phencyclidine (PCP) , lysergic acid , diethylamide (LSD)

Sign and symptoms

- Rapid heart rate and blood pressure
- Hallucinations permanent mental changes in perception
- Impulsive behavior

4.Tobacco- These drugs cause addiction. It is one of the most addictive substances that ever existed which is found in cigarettes , nicotine.

Sign and symptoms

- Rapid heart rate
- Irritability, sweating
- Continues to smoke despite health problems.

5. Heroin- These groups contain drugs like- codeine, hydrocodone, morphine, percodan, oxytocin, percocet. Heroin is also called narcotic and opioids. These groups are effective against decreasing the function of the nerve system. In the case of heroin the dose required to get high is the same as the dose that is lethal by overdose for that individual by hearing the person's respiratory

Sign and symptoms

- Decrease respiration rate.
- Dry mouth.
- Constant runny nose.
  - Weight loss.
  - Inability to solve problems
  - Depressive disorder
  - Mood swings.

6. Amphetamines- amphetamine these groups of drugs have many forms like methylphenidate and dextroamphetamine and amphetamine which comes in prescription medicine also have illegal manufactured drug overdose of any of the above listed drugs can cause death.

Sign and symptoms

- Increased blood pressure and heart rate
- Headaches
- Appetite
- Hallucination
- Irritability and agitation
- Mood swings

Effects- 1. Short term effect

2. Long term effect

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### 1) short term effect -

Every drug has a wide range of short and long term effects direct and indirect. These effects usually depend on specific types of drug use. Short term effects range from wakefulness, change in appetite, heart rate, blood pressure or mood. Heart attack, stroke, psychosis, overdose also cause death.

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### 2) long term effect-

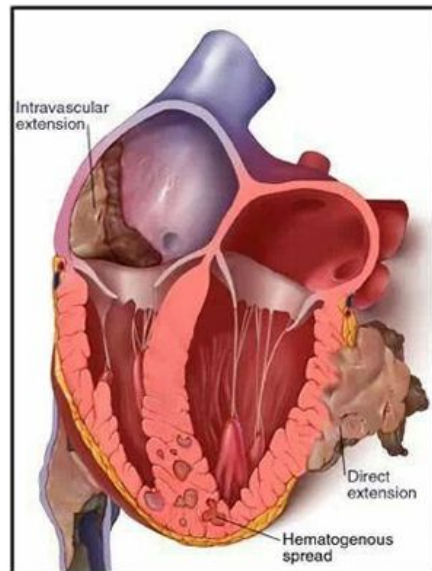
Long term effects can include lung and heart diseases, cancer, HIV / AIDS, mental illness, hepatitis and others. Long term use of these drugs causes addiction. Brain disorder is a type of drug addiction.

Everyone who uses drugs will not become addicted but some drug use may change how certain brain circuits work. People who are taking drugs and those who are around them become victims of drugs. These include affecting personal nutrition, impulsivity, sleep, decision making and risk for stroke, violence, injury and communicable disease. Those humans who take drugs during pregnancy affect their babies. Drug use is connected to risky behavior such as needle sharing which can weaken immune systems. These combinations greatly increase the likelihood of contracting HIV, hepatitis and other infectious diseases.

#### 1. Cancer –

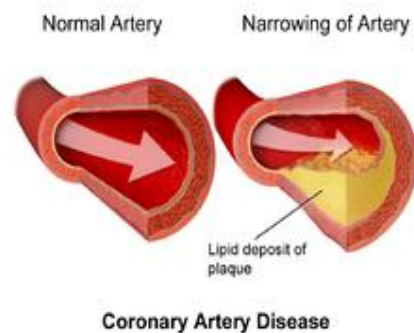
cigarette smoking causes cancer which is mostly found in the United States mouth, neck, stomach, lungs, cancers are linked to cigarette smoking. Those people who indirectly get exposed to cigarette smoke increase their chances of developing lung cancer. List of drugs that may cause cancer, tobacco, nicotine, vaping, marijuana, steroids etc.





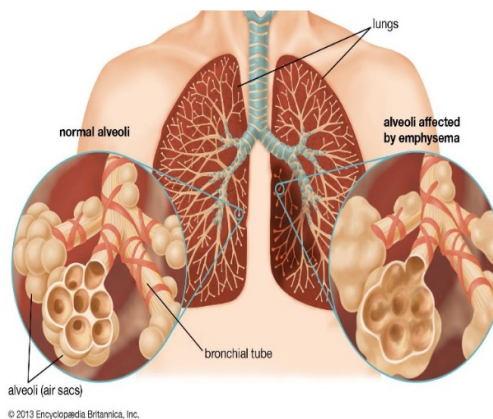
2 **HIV** - cocaine, heroin , prescription opioid, steroid when injected in drug form causes HIV.

3 **Cardiovascular disease-**



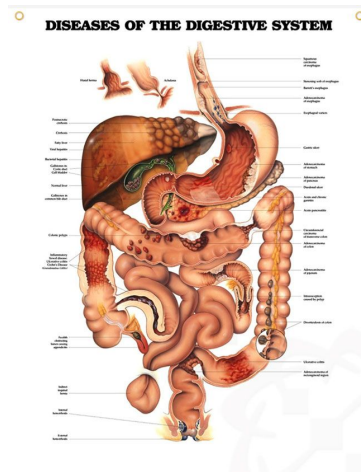
In some studies it is found that most drugs have adverse side effects which are cardiovascular effects ranging from abnormal heart rate to heart attack . Smoking tobacco is one of them which increases the risk of heart disease like vascular disease, heart attack, stroke. Injection drug leads to cardiovascular problem such as bacterial infection of blood vessels and heart vials.drug that can affect the cardiovascular system are heroin, nicotine, tobacco , vaping , cocaine, inhalant , marijuana , methamphetamine , prescription stimulant

4.**Respiratory problem-**



people who take drugs via are smoking or inhalation leads to damage the respiratory system and chronic respiratory infection . merijuana smoke , can also cause respiratory problem including chronic bronchitis , smoking, crack cocaine , opioids make May cause breathing the slow block air from entering the lungs and make asthma symptoms worse . cocaine can cause severe respiratory problem , lung damage , the drug can affects the respiratory system. Nicotine, opioids , cocaine, heroin, marijuana, tobacco, vaping , inhalants .

#### 5.Gastrointestinal effect



many drug can cause nausea , vomiting after use cocaine after taking can cause abdominal pain and bowel tissue decay and opioid use can cause abdominal pain acid reflux , and severe constipation drugs That can affects gastrointestinal system cocaine, nicotine , opioids , heroin , marijuana , GHB , prescription opioids , tobacco.

#### 6.Kidney damage-

Some drugs directly or indirectly cause kidney damage or failure dehydration from dangerously increased body temperature and muscle breakdown. Drug that causes kidney damage heroin , ketamine , steroid , inhalants etc .



#### 7.Liver damage-

Some chronic drug and alcohol use can damage liver cells which leads to inflammation scarring and even liver failure. Drugs that can cause liver

damage DXM , steroids, inhalants, and heroin.

### 8.Neurological effect-

all addictive drugs act in the brain to produce their euphorbic effect. However some can also cause damage due to seizures , stroke , and direct effect on brain cells. When a person repeatedly uses drugs it leads to addiction and brain disorders which causes changes in brain circuits which have control over disingen causing stress , impulse control , memory , learning and other functions. Drugs that can cause neurological effects DMT , heroin , cocaine, inhalant , methamphetamine, prescription sedatives , prescription opioid , ketamine , merijuana , prescription stimulants , saliva , steroids , nicotine , whelping , and tobacco.

### 9.Other health effects-

Different types of drugs can affect specific organs and systems of the body. Those drugs produce similar global body changes like increasing body temperature, dramatising change in appetite. Which May affect some kind of help problems such as mode swing, restlessness , change in appetite, fatigue , muscle and bone pain , vomiting, diarrhea, mental health problems, cold flashes etc. The drugs that produce adverse health effects are nicotine , tobacco , cocaine, heroin , vaing , prescription stimulants, prescription opioids, merijonna , inhalant, and methamphetamine .

### 10.Mental health effects-

Chronic use of some drugs leads to short and long term changes in the brain which can lead to some mental health problems like depression, anxiety , hallucination , aggression, paranoia, and other problems. Many people diagnosed with mental disorders are also diagnosed with drug addiction vice versa . If you do a comparison between the general population and people addicted to drugs are roughly twice as likely to suffer from mode and anxiety disorder and vice versa . In the year 2015 and estimated 43.8 million (17.99) adults aged 18 and older experienced these same forms of mental illnesses of which 8.1 million had both mental illness and abuse disorder drugs that can cause mental health problems. IQD , merijonna, methamphetamine, prescription drugs , steroids, and cocaine.

### 11.Overdose-

Taking multiple drugs together or taking too much of drugs will result in overdose . due to drug overdose deaths have more than tripled since 2000. According to the CDC center for disease control and prevention overdose of drugs caused 63.367 days in the US in 2018 in which opioids contributed nearly 17% of the death. [Herting JR.et al 1085]

### Warning sign-

you and your love once suffer from drug related problem warning sign from them include the following

1. Totally blank
2. Mood problem like huffines , sadness, mode alteration
3. Repeated controversy with loved once
4. Repeatedly using drugs to survive problems.
5. When we stop using drugs, physical symptoms appear.
6. Some physical problems due to drug use.
7. Frequency of using more drugs
8. Using drug for longer than essentia

### Symptoms-

- Red eyes and looking tired.
- Strong feelings about taking drugs.
- Loss of appetite and usually eating less.
- Alternation in physical situations such as having poor complexion.
- Incapability to reduce or control drug use.
- Legal and financial problems .
- Weight loss.
- Frequent runny nose.
- Dry mouth.

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## Diagnosis

**Recognizing the problem and wanting help is the first step to diagnosing drug addiction. This first step starts with an intervention from friends and loved ones .**

Next step includes that person deciding to seek help . history collection physical examination. Neurological examination, mental status examination,

CAGE questionnaires , michigan alcohol screening . Indication of intoxication for blood alcohol level . liver functioning studies demonstrating . liver damage due to alcohol . urine toxicology to reveal use of other drug . anemia thrombocytopenia reveals hematologic workup . Electrocardiography and echocardiography cardiac problem , dominating based on ICD 10 criteria.

Addiction is a complex mental disorder which occurs by self diagnosis. There is no minimum requirement for how often or how long you must use substances or how much you need to consume before being diagnosed with addiction. Ultimately abuse disorder is about how it is affecting you and your whole quality of life.

Professional screening- If you suspect yourself that you could have an addiction your next step should be examination by a healthcare professional. These involve questioning about behavior and

an examination to assess overall health. The development of a treatment plan that works best for your specific addiction. The exact diagnosis a person receives depends on the nature of their addiction because some sub have the potential to cause dangerous withdrawal symptoms when they are stopped. In order to get best treatment it is important to receive an appropriate diagnosis according to the ( DSM-5 / diagnostic and statistical manual of mental health disorder ,

15 th edition ") Subabuse is diagnosed using these 11 criteria [Hawkins JD .et al 1995].

Lab test - There are so many lab tests to detect drug or alcohol in someone's blood and urine they can generally only see recent use. Your health care provider May recognize specific lab tests to monitor your treatment and recovery . Your doctor May also order lab tests to see the potential impact of substances on your physical health . At home testing- as we know addiction is a self diagnose condition deciding or recognizing that You May be struggling with an addiction is often one of the biggest challenges is recovery . Everyone who has an addiction comes to that recognition in different ways [Chalk.R Philips DA.et al 1997 ].

A word from very well- If you are firing with drug addiction the most important thing is to reach out for help . attending an addiction support group or finding a health care provider are the first step you can take for great recovery.

## Complication -

Addiction is a complicated disease that increases the risk of domestic violence. Children of such parents with substance use disorder are at higher risk for educational , health and impaired social functioning. There are so many potential medical complication from respiratory arrest associated with sedatives or heroin overdose to heart

attack or stroke caused by cocaine liver or heart failure and pancreatitis associated with alcoholism These drugs use damaging and significant short as well as long term effects. Opioids methamphetamine and cocaine are highly addictive and can cause health complications like psychotic behavior, seizures or death due to overdose. GHB and flunitrazepam cause seizures, coma and death . The danger increases when these drugs are taken with alcohol. Ecstasy may cause electrolyte imbalance, dehydration, and complications that include seizures [Lipari RK .et al 1993].

### Types of complication-

1. Physical complication
2. Psychological complication
3. Personal complication

### 1. Physical complication -

Overusing mood physiology altering substances can cause damage in a number of ways.

Direct effect of substance forex snorting cocaine through the nose May cause damage to nasal cartilage .

Opioids can lead to opioid induced constipation regular tobacco use causes cancer then methamphetamine May fuel severe form of dental decay known as meth mouth.

- injury- This can occur while taking the drug depending on methods like injecting heroin using a needle can lead to muscle and skin damage at the site of injection. Smoking causes respiratory illness
- overdose- Taking too much drug at the same time can cause overdose. Overdose can also occur with pharmaceuticals which may result in , and death.
- health - There is rise in bp and heart rate due to some substance.
- fetal damage- If a woman takes substance while pregnant this can lead to fetal abnormality or even death of fetus

### 2. psychological complication -

Mental health issues such as anxiety and depression occur ahead of addiction. Addiction makes changes in the body and also changes the way a person thinks.

psychoactive substances-

Many drugs cause hallucination and long term psychological effects lead to severe mental health problems for example high use of LSD results in slipping handle on reality and drug induced psychosis.

- Depression - Use of a number of various substances leads to elevated level of depression , restlessness, anxiety, shame and guilt can also result form for prolong drug depends
- Loneliness- People taking drugs or addicted people like to live alone.
- Adverse circumstances - Drug addiction can cause people to homelessness financial problems, criminal activity and prison.

- **Suicide-** Those people who regularly misuse opiates attempt suicide. The rate of death by suicide was 2 - 3 time higher in people who add opiates addiction

### 3. Personal complication -

Addiction can have a compound effect on the body and brain. These can also change people relationship

- **Finances-** The cost of regularly purchasing substances is preserving behavioral impulses
- **Crime-** Many psychoactive substances are illicit and even possessing them can put a person in jail. People May also resort to crime to fund drug misuse, especially drug addiction that leads to unemployment.

#### Prevention

Drug addiction can be prevented by using programs involving school, family, and communities. May prevent or reduce drug use and addiction. This program contains education and outreach to help people understand the risk of drug use.

Other ways to prevent substance use disorder-

1. Don't try illegal drugs, not even one time.
2. Follow instructions given under prescription while taking medicines.
3. Discard the unused prescription to reduce the risk of misuse by others preventing drug misuse in children and teenager

Take the following steps to help in prevention of drug misuse in teenagers and children.

1. **Communication-** you should talk to your children about what are the side effects of drug addiction.
2. **Set a good example-** avoid taking drugs and alcohol so you can set good example for your children
3. **Listen-** when your children are under pressure talk to them and be a good listener and support your children to resist it.
4. **Strengthen the bond-** Stronger the bond between you and your children will help to reduce your children's risk of misusing drugs so you should work to strengthen the bond with your

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#### Conclusion:

By adopting an evidence-based public health approach, America has the opportunity to take genuinely effective steps to prevent and treat substance-related issues. Such an approach can prevent substance initiation or escalation from use to a disorder, and thus reduce the number of people suffering with addiction; it can shorten the duration of illness for sufferers; and it can reduce the number of substance-related deaths. A public health approach will also reduce collateral damage created by substance misuse, such as infectious disease transmission and motor vehicle crashes. Thus, promoting much wider adoption of appropriate evidence-based prevention, treatment, and recovery strategies needs to be a top public health priority.

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