



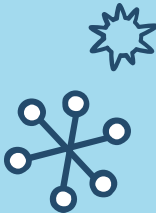


Substance and non substance addiction

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Learning Outcomes

-  The difference between Chemical and Non Chemical addiction
-  Impact of chemical/drug addiction on a person



Important terminologies



Drug

- any substance /chemical that produces changes in our bodies or mind.

Addiction

- a condition in which a person is unable to stop using a substance or engaging in a behavior.

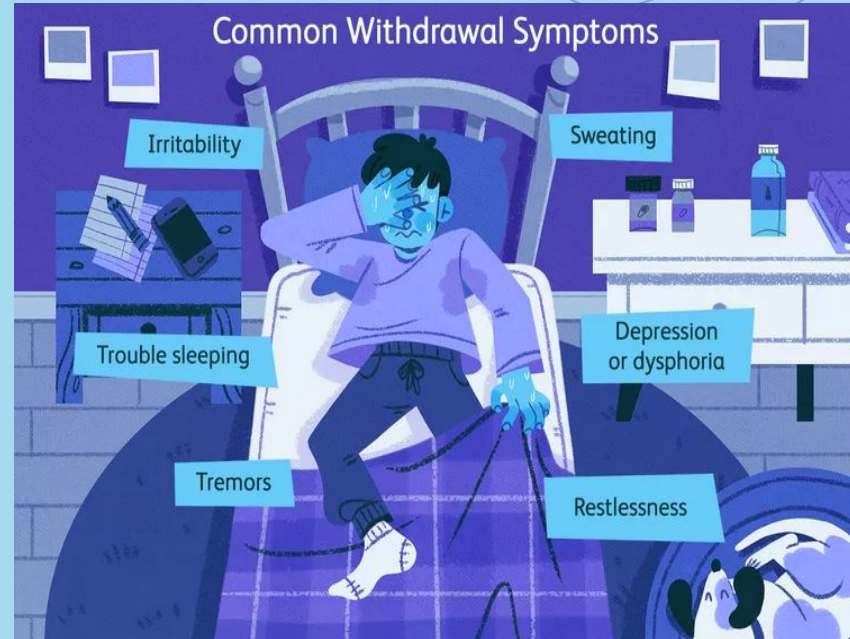
Terminologies:

Intoxication is a state in which a person has consumed enough alcohol or drugs that their mood and physical and mental abilities are noticeably affected. For example, a person has reached the point of alcohol intoxication when the alcohol produces mental or physical impairments, such as slurred speech, difficulty walking, or disorientation.

Drug tolerance is defined as the diminished response to a drug, alcohol, or other substance over the course of repeated or prolonged exposure. It is a physiological response to a drug that requires greater quantities to offer the same response. When people develop tolerance, they need increasing doses of the substance to produce the effect.

Terminologies:

Withdrawal is the combination of physical and mental effects a person experiences after they stop using or reduce their intake of a substance such as alcohol and prescription or recreational drugs.



What is addiction?



- Addiction is a **complex, chronic brain condition** influenced by genes and the environment that is characterized by substance use or compulsive actions that continue despite harmful consequences.
- A person with an addiction uses a substance, or engages in a behavior, for which the **rewarding effects** provide a compelling incentive to repeat the activity, despite detrimental consequences.
- Addiction may involve the use of **substances** such as alcohol, inhalants, opioids, cocaine, and nicotine, or **behaviors** such as gambling.

Types of Addiction

Chemical Addiction

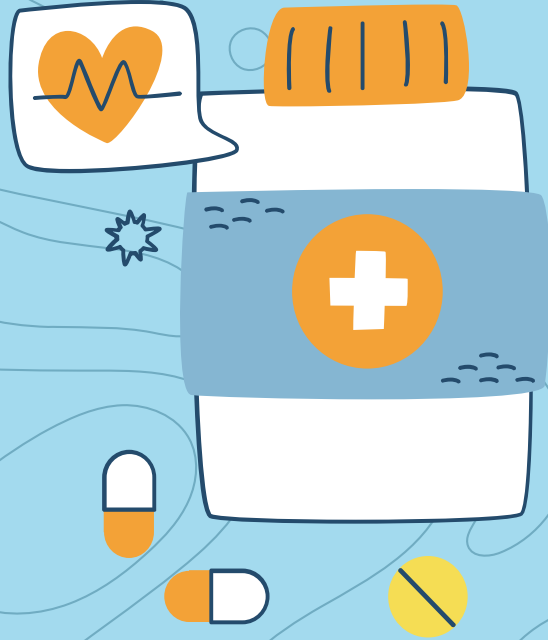
- Refers to addiction that involves **the use of substances**. E.g., alcohol, marijuana etc.

Non Chemical Addiction

- Refers to addiction that involves compulsive behaviors. Includes things such as gambling, risky sex, food, the internet, mobile devices, and shopping. These are sometimes called **behavioral addictions**.

When a person engages in these behaviors in excess and can't stop, it becomes an addiction.





Substance/drug addiction

Repeated exposure leading to Addiction

- **Substance addiction (or drug addiction)** is a neuropsychiatric disorder characterized by a **recurring desire** to continue taking the drug **despite harmful consequences**.
- Addiction is caused by the actions of drug abuse and generally requires repeated drug exposure. This process is strongly influenced both by the genetic makeup of the person and by the psychological and social context in which drug use occurs.

Neurobiological changes (How the brain responds to drugs)

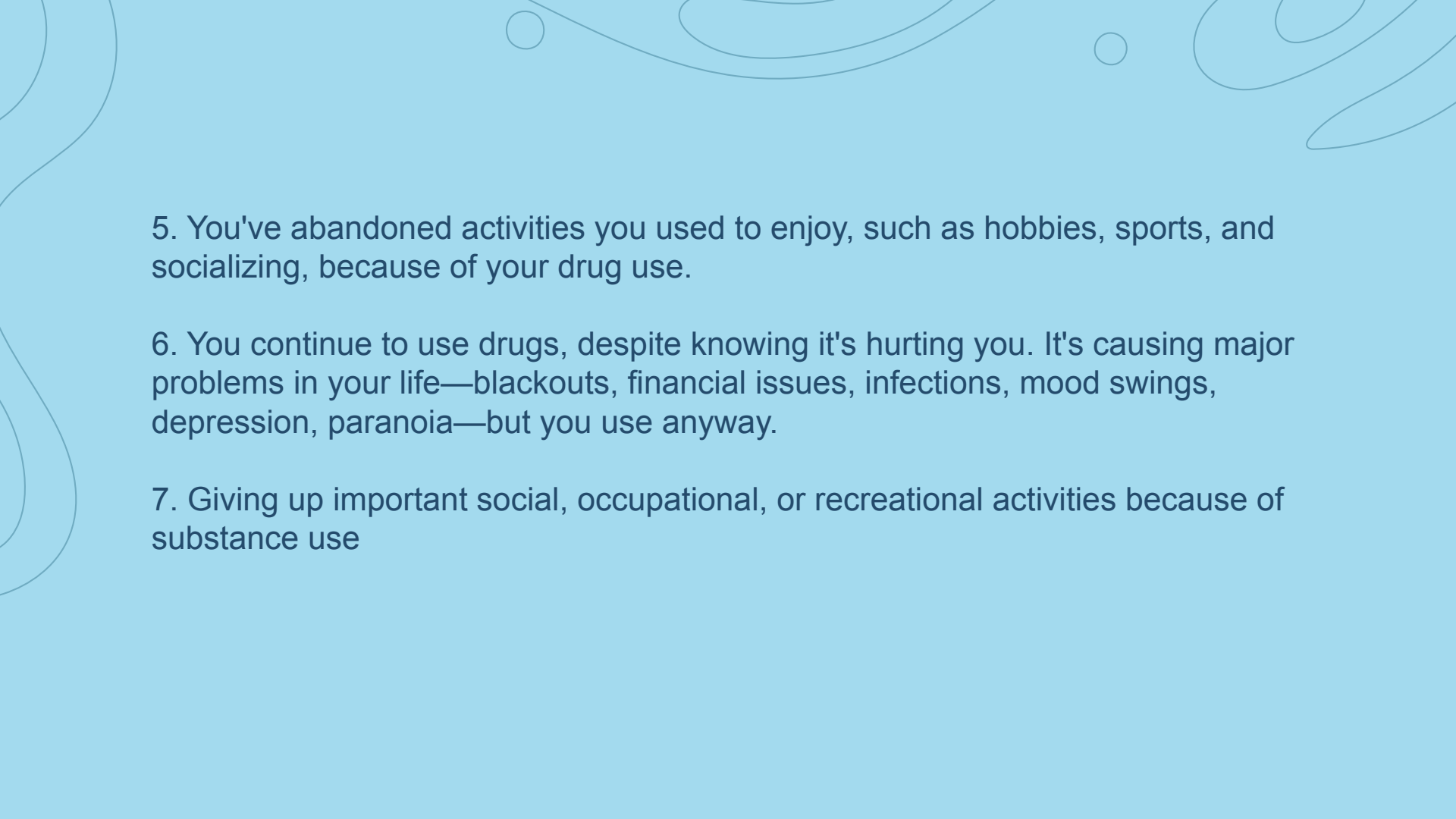
- **Dopamine** is secreted by the brain during healthy activities, but drugs like cocaine or heroin (or compulsive behaviors, like gambling, shopping, or eating) will force the brain to release **massive amounts of dopamine**, and then prevent the brain from reabsorbing the dopamine, making the pleasurable experience last unnaturally longer.
- In many cases of chronic or severe substance use, this actually **changes the brain's chemistry** to the point where normal activities (e.g., one's favorite food, sex, etc.) don't produce the same amounts of dopamine that they used to.
- In the context of associative learning, the brain has been **reprogrammed to associate the blast of euphoria from drugs or compulsive behavior with only feelings of pleasure, reward**, and the anticipation of **more pleasure and reward**. Healthy activities don't register on the radar anymore, so they are discarded and eventually forgotten.

Neurobiological Changes

- While early use of a drug may indeed be by choice, the neurobiological changes that occur with continued use, particularly to the prefrontal cortex among other regions related with executive function, compromise inhibitory control which when coupled with physiological and psychological craving for the drug lead to uncontrolled drug use
- Thus, it is the mechanisms that occur as a result of taking the drug that make uncontrolled substance use a disorder.

Common symptoms of drug addiction

1. Needing **more of the substance** to get the effect you want (tolerance).
2. If you go too long without drugs, you experience symptoms such as **nausea, restlessness, insomnia, depression, sweating, shaking, and anxiety.**
3. Loss of control over your drug use. You often do drugs or use **more than you planned**, even though you told yourself you wouldn't. You may want to stop using, but you feel powerless.
4. Your **life revolves around drug use.** You spend a lot of time using and thinking about drugs, figuring out how to get them, or recovering from the drug's effects.



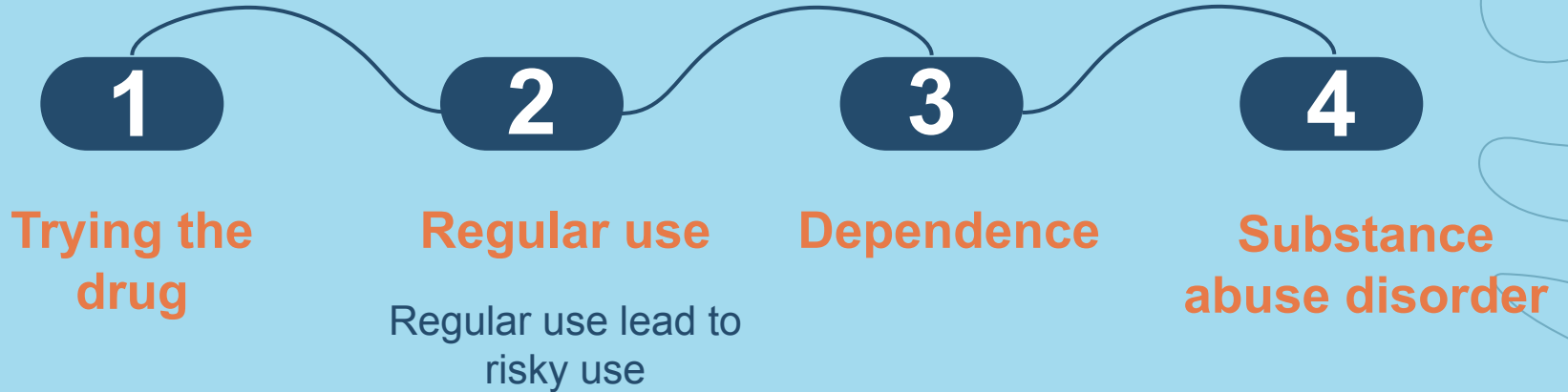
5. You've abandoned activities you used to enjoy, such as hobbies, sports, and socializing, because of your drug use.

6. You continue to use drugs, despite knowing it's hurting you. It's causing major problems in your life—blackouts, financial issues, infections, mood swings, depression, paranoia—but you use anyway.

7. Giving up important social, occupational, or recreational activities because of substance use



Drug Abuse Process



The Stages of Drug Addiction

Stage 1: Experimentation

Defined as the **voluntary use of drugs** without experiencing any negative social or legal consequences. For many, experimenting may occur once or several times as a way to “**have fun**” or even to help the individual **cope with a problem**. For many, experimentation can occur without any desire to continue using the drug.

Stage 2: Regular Use

Some people will be able to enter the stage of regular **use without developing a dependence or addiction**. These people will be able to stop the drug use on their own. The problem with regular use is that the risk for **substance abuse greatly increases during this stage**.

Stage 3: Risky Use/Abuse

This stage is defined as **continued use of drugs in spite of severe social and legal consequences**. This is the stage where the **warning signs of addiction will begin to appear**: craving, preoccupation with the drug, and symptoms of depression, irritability and fatigue if the drug is not used.

Stage 4: Drug Addiction and Dependency

Characteristics of dependence and drug addiction at this stage includes **withdrawal symptoms and compulsive use of the drug** despite severe negative consequences to their relationships, physical and mental health, personal finances, job security and criminal record.

Causes of addiction

1. Biological factors

Studies show that genetic factors are responsible for **40% to 60%** of the vulnerability to any substance use disorder. If you have a first-degree relative (biological sibling or parent) with SUD, you're more likely to develop it.

2. Psychological Factors

- a. **Personality factors:** Both **impulsivity** and **sensation seeking** have been linked to substance use and gambling disorders.
- b. **Trauma and abuse:** Early exposure to **significant adverse experience** can contribute to the development of substance use disorders.
- c. **Mental health factors:** Conditions such as **depression, anxiety, attention deficit disorder, and post-traumatic stress disorder (PTSD)** increase the risk of addiction.

3. Environmental Factors

- a) **Family factors:** Having a **parent or sibling** with an addictive disorder raises the risk, as does a lack of parental supervision or support. **Poor-quality or troubled** parent-child relations and family disruptions such as divorce also add to one's risk, as does sexual, physical, or emotional abuse.
- b) **Accessibility factors:** Easy **availability of alcohol or other substances** in one's home, at school or work, or in one's community increases the risk of repeated use.
- c) **Peer group:** As profoundly social animals, people are strongly influenced by their peers and, in generally seeking to be liked by them, may adopt many of their behaviors, particularly during adolescence.

Stimulants

- Stimulants are group of substances that **increase the activity of the central nervous system**, resulting in increased blood pressure and heart rate, more alertness, and sped-up behavior and thinking.
- **What is their effect on the mind?**
- Produce a sense of pleasure, enhance self esteem, improve mental and physical performance, increase activity, reduce appetite, extend wakefulness.

Stimulants (Uppers)

What do they do?

Speed up the brain and central nervous system.

Examples:

- **Caffeine** (coffee, energy drinks, tea)
- Nicotine (cigarettes)
- **Amphetamines** (meth, ecstasy)
- “Bath salts”
- Cocaine and Crack



Side Effects of Stimulants

- Meth Mouth” — rapid decay of a person’s teeth
- Weight loss
- Drug related psychosis
- Organ failure
- Death due to stroke, cardiac arrest



Loss Of Appetite



Increased Wakefulness



Altered Perception



Increased Sexual Desire



Sleeping Issues



Rapid Heartbeat



High Blood Pressure



High Body Temperature

Depressants

Depressants **slow the activity of the central nervous system**. They **reduce tension** and inhibitions and may interfere with a person's judgment, motor activity, and concentration.

The three most widely used groups of depressants are **alcohol, sedative hypnotic drugs, and opioids**.



Depressants (Downers)

What do they do?
Slow down the brain and central nervous system.

Examples:

- Alcohol (beer, wine, vodka, tequila, etc.)
- Heroin
- Tranquilizers
- Sleeping Pills
- Marijuana



Side Effects of Depressants

1. COMA
2. Respiratory issues
3. Lung cancer
4. Death



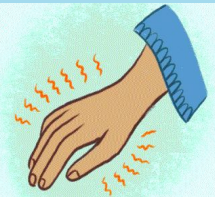
Flu-like symptoms



Sleeping trouble



Anxiety



Tingling sensations



Hypertension



Sweating



Tremors



Nausea

Hallucinogens



Hallucinogens are a group of drugs that can **alter perception, thoughts, and feelings**. Hallucinogens can be taken in a variety of ways: ingested, smoked and inhaled.

These produce powerful changes in sensory perception from strengthening a person's normal perceptions to inducing illusions and hallucinations

They produce **sensations so out of the ordinary** that they are sometimes called **"trips."**

The trips may be exciting or frightening, depending on how a person's mind interacts with the drugs. Also called psychedelic drugs

https://www.youtube.com/watch?v=UTa_1DyrYk0



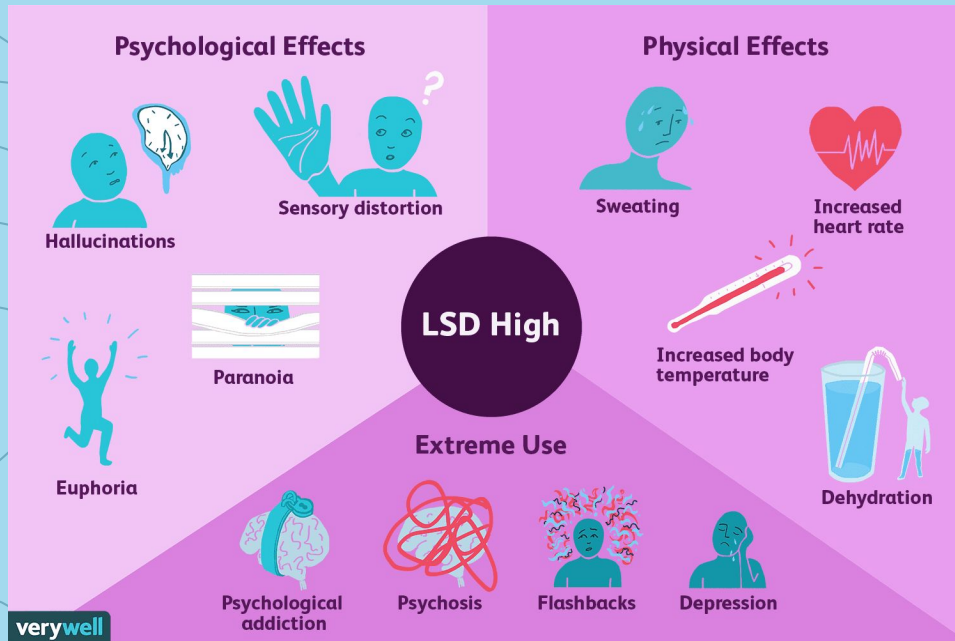
Hallucinogens

What do they do?

These drugs alter the user's state of consciousness. (Distort auditory and visual sensations)

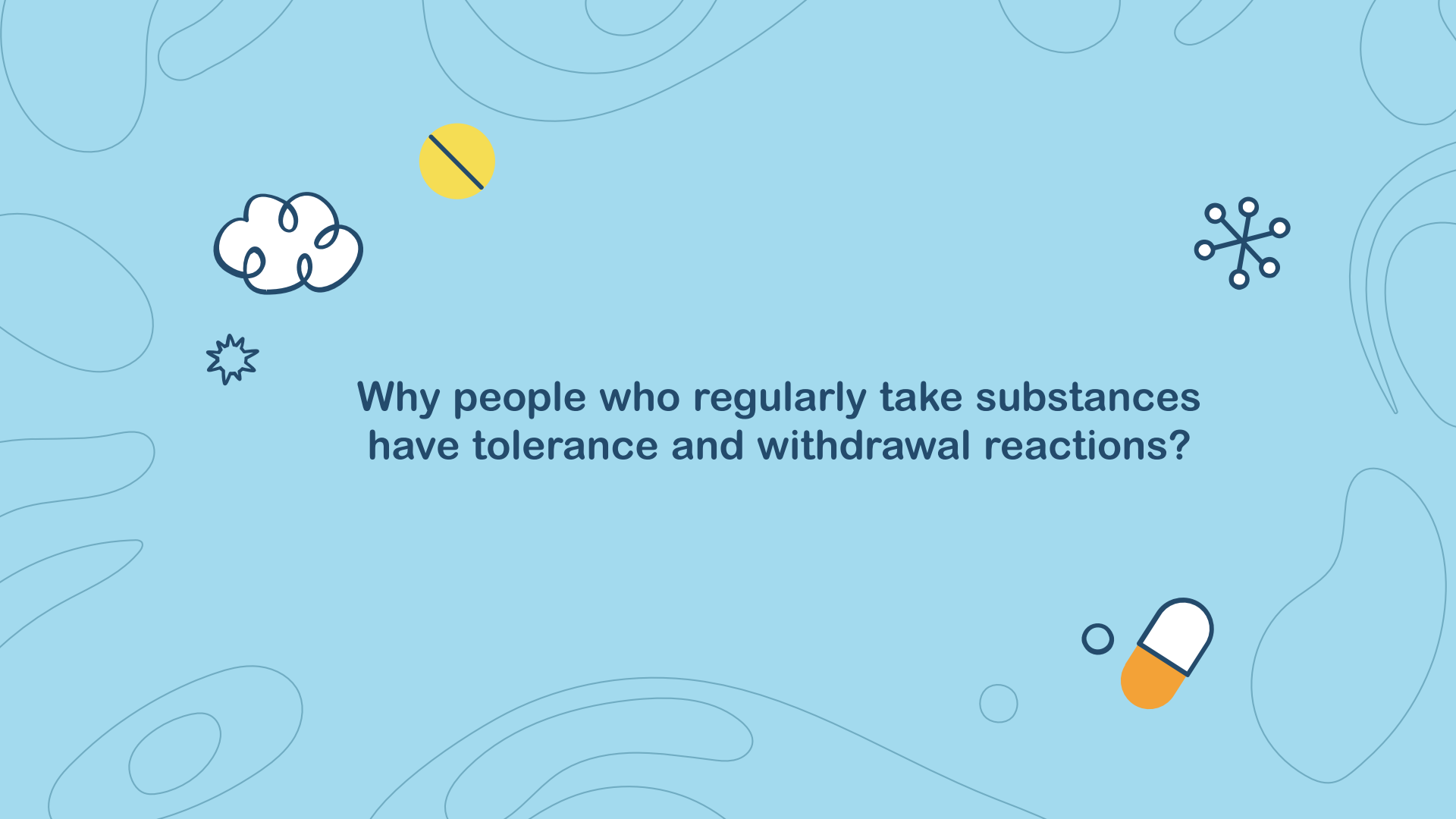
Examples:

- LSD
- Ecstasy
- Magic mushrooms
- Cannabis



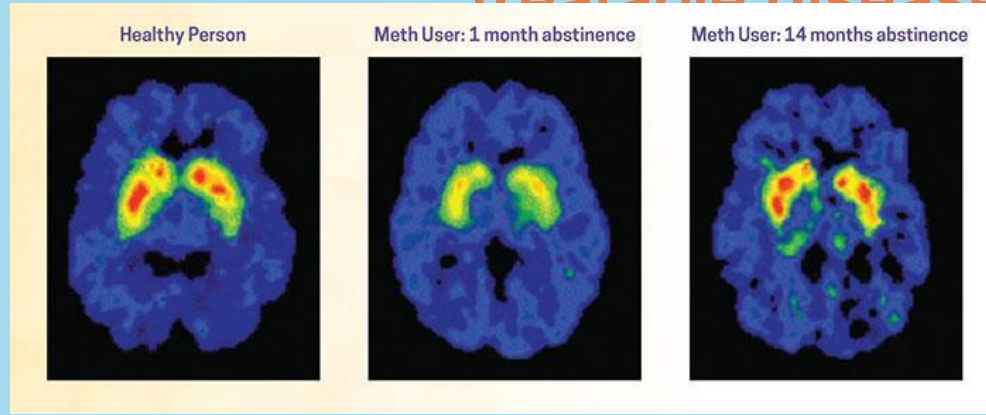
Theory





**Why people who regularly take substances
have tolerance and withdrawal reactions?**

Drug Abuse is preventable & Drug Addiction is a treatable disease



Brains from addicts are different from the brains of people who are not addicted. It is difficult, in some cases impossible, to return the brain to normal. Because drug abuse and addiction have so many dimensions and disrupt so many aspects of an individual's life, treatment is not simple.

- Effective treatment programs typically incorporate many components, each directed to a particular aspect of the illness and its consequences.
- Addiction treatment must help the individual stop using drugs, maintain a drug-free lifestyle, and achieve productive functioning in the family, at work, and in society. Because addiction is typically a chronic disease, people cannot simply stop using drugs for a few days and be cured.
- Most patients require long-term or repeated episodes of care to achieve the ultimate goal of sustained abstinence and recovery of their lives.

Consequences of Drug Use- Society

Crimes such as:

- Drug possession
- Drug use
- Drug trafficking
- Drug manufacturing
- Theft
- Break and enter
- Robbery
- Motor vehicle theft
- Murder

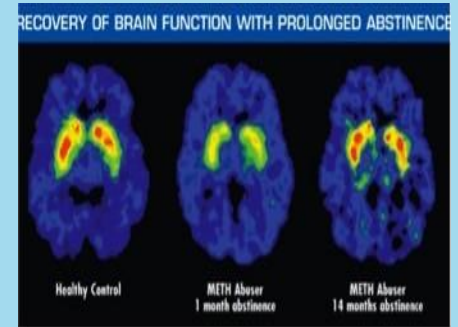
RESULTS IN:

- Jail Time
- Massive Legal Fines
- Becoming Employed
- Homelessness
- Failed Relationships With Family And Friends
- Addiction/Dependency On Drugs Leading To More Crime
- Death



Drug Abuse is preventable and treatable disease

- 1.Brains from addicts are different from the brains of people who are not addicted. It is difficult, in some cases impossible, to return the brain to normal. Because drug abuse and addiction have so many dimensions and disrupt so many aspects of an individual's life, treatment is not simple. Effective treatment programs typically incorporate many components, each directed to a particular aspect of the illness and its consequences.
- 2.Addiction treatment must help the individual stop using drugs, maintain a drug-free lifestyle, and achieve productive functioning in the family, at work, and in society. Because addiction is typically a chronic disease, people cannot simply stop using drugs for a few days and be cured. Most patients require long-term or repeated episodes of care to achieve the ultimate goal of sustained abstinence and recovery of their lives.

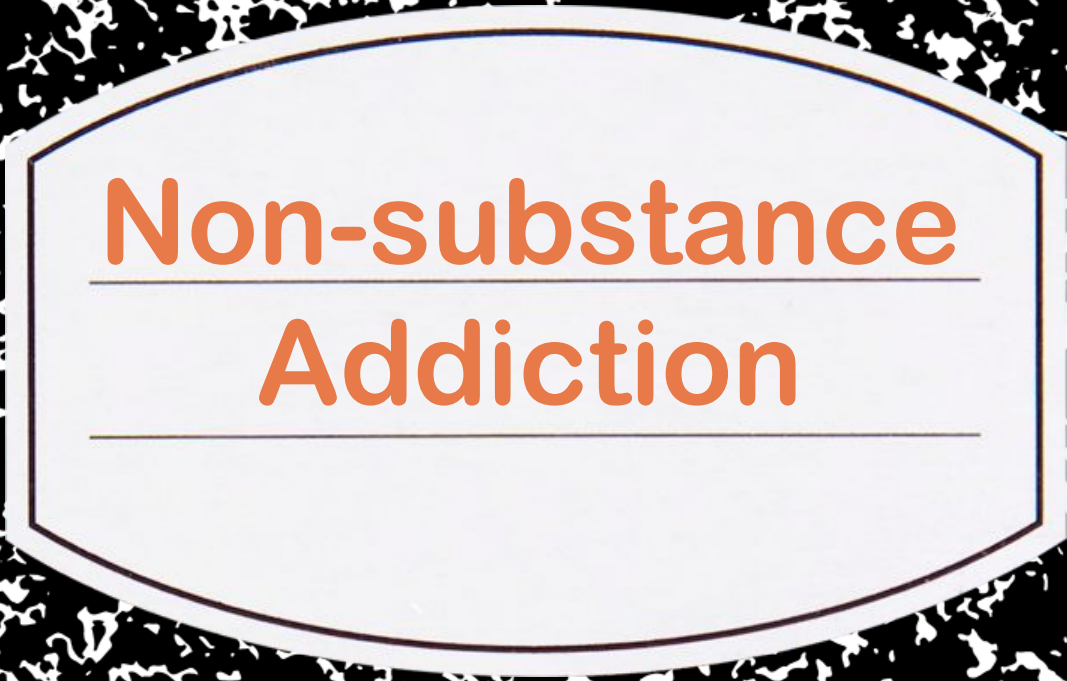


Drug abuse and addiction affect every segment of society. That's all of us. Not one person is immune from the disease of addiction.

Prevent drug abuse by :

- **Being informed of the risks associated with substance abuse**
- **Involvement in alternative activities**
- **Build self-confidence**
- **Make positive future plans**
- **Be brave enough to say “NO!”**
- **Surround yourself with friends who disapprove of drug use**
- **Solve underlying issues that might lead to future**
- **drug abuse with a professional such as a school counselor.**





Non-substance Addiction

Non-substance Addiction?

1. A non-substance addiction includes things such as gambling, risky sex, food, the internet and shopping. These are sometimes called behavioral addictions.
2. When a person engages in these behaviors in excess and can't stop, it becomes an addiction.
3. Non-substance addictions can result in physical, emotional, and financial harm.

Examples of Non Substance Addiction

1. Plastic Surgery
2. Food
3. Gaming
4. Plastic Surgery
5. Sex
6. Social Media
7. Gambling
8. Internet
9. Risks
10. Shopping
11. Pornography

Symptoms of Non-substance Addiction

A person with a non-substance addiction is unable to stop doing the troublesome activity or behavior. For example, a person addicted to gambling may spend all his or her savings. A person addicted to sex may continue to have reckless sex and acquire a sexually transmitted disease (STD). Non-substance addiction symptoms can include:

1. Compulsive, excessive, and repetitive engagement in a risky behavior or activity.
2. Being unable to stop the activity.
3. Impaired judgment.
4. Being unable to control the behavior.
5. Craving the activity or behavior.
6. Being unable to recognize the consequences of the behavior (safety, financial, emotional, physical, death).
7. Strained work and personal relationships.
8. Inappropriate emotional response.

What causes a non-substance addiction?

Studies have shown that gambling activates similar parts of the brain as other drugs, like alcohol. These parts of the brain are responsible for our “reward” functions. This is what gives our bodies’ dopamine after we do some healthy behavior, like exercise or eating a good meal.

How are non-substance addictions diagnosed?

Some people with a non-substance addiction recognize the problem and seek help. Some people are told by family and friends. A mental health professional can diagnose the addiction.

