Drugs and their Effects

Name: Date:

Read the following text and answer the questions.

Escape from Ecstasy: My Journey Away from Addiction

My name is Jake, and I used to be addicted to Ecstasy, also known as MDMA. It all started when I was 16. I went to a rave with my friends, and someone handed me a small, colorful pill. They said it would make me feel amazing and help me dance all night. Curious and wanting to fit in, I decided to try it.

The initial effects were incredible. Within 30 minutes, I felt an overwhelming sense of euphoria. My body tingled, and I felt an intense connection to everyone around me. It was like all my anxieties and worries had disappeared. I danced for hours, feeling invincible and full of energy.

But what I didn't realize was the toll it was taking on my body. MDMA increases the release of serotonin, dopamine, and noradrenaline in the brain, creating those intense feelings of happiness and energy. However, this also led to short-term side effects like teeth grinding, blurred vision, and a rapid heartbeat. After the high wore off, I felt incredibly tired and depressed.

Despite these downsides, I continued to use Ecstasy because the highs seemed worth it. But over time, the effects became less intense, and I needed more of the drug to feel the same euphoria. I started experiencing memory problems, paranoia, and difficulty sleeping. I was caught in a cycle of chasing that initial high, but it was never the same.

I hit rock bottom when I fainted at a party due to dehydration and overheating, common risks associated with MDMA use. My parents found out and were devastated. They helped me seek professional help, which was the turning point in my life.

Rehabilitation was tough, but it taught me about the dangers of MDMA. Long-term use can lead to addiction, severe memory issues, and even death. I learned coping mechanisms for my anxiety and found healthier ways to connect with people.

Today, I'm proud to say I'm free from Ecstasy. I've reconnected with my family and friends, and I'm focused on my future. My experience taught me that while drugs might offer a temporary escape, the long-term consequences aren't worth it. If you're struggling with addiction, know that help is available, and recovery is possible.

Describe the initial effects Jake experienced after taking Ecstasy for the first time.

Explain the long-term consequences of MDMA use that Jake learned during rehabilitation.

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Watch the following video and complete the tasks.

Youtube: What causes addiction, and why is it so hard to treat? - Judy Grisel

To watch the youtube video just scan the QR code.

https://www.youtube.com/watch?v=hBC7i-vHWsU

Tick the correct answer.

What happens to the brain's reward pathway when someone repeatedly uses an addictive substance?

- ○ It stops responding to all stimuli, including addictive substances.
- ○ It only responds to natural rewards and not to drugs.
- ○ It becomes less sensitive to pleasure-inducing experiences.
- ○ It becomes more sensitive to experiences that give pleasure and drives repeated seeking behavior.

Why is heroin considered more addictive than morphine?

- ○ Heroin is less expensive and more easily available.
- ○ Heroin has a chemical structure that allows it to penetrate the blood-brain barrier faster.
- ○ Heroin produces more dopamine than morphine.
- ○ Heroin has fewer side effects than morphine.

How does repeated use of addictive substances affect the brain's cortex and subcortex?

- ○ It has no effect on the cortex or subcortex.
- ○ It increases the influence of the cortex and decreases the influence of the subcortex.
- ○ It decreases the influence of the cortex and increases the influence of the subcortex.
- ○ It causes the cortex to become more sensitive to addictive substances.

Why are younger individuals more susceptible to substance use disorders?

- ○ They have a higher metabolism, which processes drugs faster.
- ○ Their reward pathways are less developed and less sensitive.
- ○ Their reward pathways are especially sensitive, making them more vulnerable to addiction.
- ○ They have stronger decision-making skills, which make them more likely to experiment with drugs.

What role do genes play in susceptibility to substance use disorders?

- ○ Certain genes can increase or decrease the risk of developing substance use disorders.
- ○ Genes predetermine whether someone will develop a substance use disorder.
- ○ Genes have no influence on substance use disorders.
- ○ Only genes related to the reward pathway affect substance use disorders.

Why can quitting a substance abruptly be physically risky?

- ○ The reward pathway shuts down entirely.
- ○ The substance stays in the system permanently.
- ○ The body's equilibrium is disrupted, potentially causing severe withdrawal symptoms.
- ○ The brain immediately stops producing neurotransmitters.

Describe how addictive substances alter the brain's reward pathway and the implications of these changes.

Explain why quitting addictive substances can be particularly challenging and what factors contribute to successful recovery.

Match the pairs.

Addiction	Drugs that increase the activity of the central nervous system, leading to increased alertness, attention, and energy.
Tolerance	A chronic, relapsing disorder characterized by compulsive drug seeking, continued use despite harmful consequences, and long-lasting changes in the brain.
Withdrawal	A state in which a person no longer responds to a drug in the way they initially did, requiring a higher dose to achieve the same effect.
Stimulants	The symptoms that occur after stopping or reducing intake of a drug to which one has become dependent.
Depressants	Substances that reduce the activity of the central nervous system and induce relaxation, drowsiness, or sleep.
Psychoactive Drugs	Chemical substances that affect the brain function, resulting in alterations in perception, mood, consciousness, cognition, or behavior.