

Addiction Science Basics

Addiction Science · Answer Key · 25 Questions

1. What is the primary neurotransmitter system associated with the reward pathway in the brain, often affected by addictive substances?

- A) Serotonin
- B) Dopamine**
- C) GABA
- D) Norepinephrine

2. Which part of the brain is most heavily involved in decision-making and impulse control, and is often impaired in addiction?

- A) Cerebellum
- B) Brainstem
- C) Prefrontal Cortex**
- D) Hippocampus

3. What term describes the body's physical dependence on a substance, leading to withdrawal symptoms when it's stopped?

- A) Tolerance
- B) Craving
- C) Habituation
- D) Physical Dependence**

4. What is the progressive decrease in the effect of a drug with repeated administration?

- A) Sensitization
- B) Withdrawal
- C) Tolerance**
- D) Habituation

5. Which type of drug is known to slow down the central nervous system?

- A) Stimulants
- B) Hallucinogens
- C) Depressants**
- D) Opioids

6. The repeated use of a substance, even with negative consequences, is a core characteristic of addiction. What is this called?

- A) Pleasure Seeking
- B) Compulsive Use**
- C) Hedonic Adaptation
- D) Neuroadaptation

7. What are the strong urges or desires to consume a substance, often triggered by environmental cues or emotions?

- A) Apathy
- B) Craving**
- C) Anhedonia
- D) Delirium

8. Which major classification of drugs includes substances like cocaine and amphetamines, known for increasing alertness and energy?

- A) Depressants
- B) Opioids
- C) Stimulants**
- D) Cannabinoids

9. What term refers to the brain's ability to change and adapt its structure and function in response to experiences, including drug use?

- A) Synaptic Plasticity**
- B) Neurotransmission
- C) Myelination
- D) Axonal Regeneration

10. Which class of drugs, derived from opium, are commonly used for pain relief and can be highly addictive?

- A) Stimulants
- B) Depressants
- C) Antidepressants
- D) Opioids**

11. The phenomenon where drug-related stimuli (like paraphernalia or locations) can trigger intense cravings is known as:

- A) Classical Conditioning**
- B) Operant Conditioning
- C) Observational Learning
- D) Habituation

12. What is the term for the potential for a substance to cause physical dependence?

- A) Potency
- B) Efficacy
- C) Addictiveness

D) Dependence Potential

13. Which genetic factor can influence an individual's susceptibility to developing an addiction?

- A) Blood Type
- B) Eye Color

C) Inherited Genes

- D) Allergy Status

14. What is the state of persistent drug-seeking behavior despite negative consequences?

- A) Rehabilitation
- B) Remission

C) Addiction

- D) Sobriety

15. Which brain region is crucial for forming and retrieving memories, and can be affected by chronic substance use?

- A) Amygdala

B) Hippocampus

- C) Thalamus
- D) Hypothalamus

16. Substances that alter perception, mood, and thought processes are known as:

- A) Analgesics
- B) Antivirals

C) Psychoactive Drugs

- D) Antibiotics

17. What is the primary function of neurotransmitters in the brain?

- A) Provide structural support

B) Transmit chemical signals between neurons

- C) Filter out harmful toxins
- D) Regulate body temperature

18. Which factor is NOT considered a significant contributor to addiction development?

- A) Genetics
- B) Environment
- C) Social Support

D) Meteorological Conditions

19. What term describes the process of stopping the use of a substance and the subsequent physical and psychological symptoms?

- A) Intoxication
- B) Relapse

C) Withdrawal

- D) Tolerance

20. Which of the following is a common symptom of stimulant withdrawal?

- A) Increased energy

B) Severe anxiety

- C) Euphoria
- D) Decreased appetite

21. The brain's reward system is also known as the mesolimbic pathway, which is central to the experience of pleasure and motivation.

- A) Pyramidal Tract

B) Limbic System

- C) Reticular Activating System
- D) Cerebral Cortex

22. What is a common characteristic of depressant withdrawal?

- A) Hallucinations
- B) Intense cravings
- C) Restlessness

D) Insomnia

23. The long-term effects of addiction can include damage to which vital organ?

- A) Skin
- B) Hair

C) Brain

- D) Fingernails

24. What is the name of the process where the brain's reward pathway becomes less sensitive to natural rewards over time due to repeated exposure to drugs?

- A) Neurogenesis
- B) Synaptic pruning
- C) Hedonic adaptation**
- D) Neurotransmitter depletion

25. Which type of therapy is often used to treat addiction by helping individuals identify and change negative thought patterns and behaviors?

- A) Hydrotherapy
- B) Music Therapy
- C) Cognitive Behavioral Therapy (CBT)**
- D) Art Therapy