

Foundational Concepts in Addiction Science

Addiction Science · Answer Key · 12 Questions

1. What is the primary neurotransmitter system in the brain that is heavily involved in the reward pathway and is often hijacked by addictive substances?

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

2. Which of the following best describes addiction?

- A) A moral failing or weakness of character
- B) A chronic, relapsing brain disease characterized by compulsive drug seeking and use**
- C) A temporary state of poor decision-making
- D) A learned behavior that can be easily unlearned with willpower

3. Tolerance to a substance means:

- A) Experiencing withdrawal symptoms when stopping use
- B) Needing more of the substance to achieve the same effect**
- C) Having a strong psychological craving for the substance
- D) Experiencing negative health consequences from use

4. Which common stimulant is known for its highly addictive potential and is often found in tobacco products?

- A) Caffeine
- B) Nicotine**
- C) Amphetamine
- D) Cocaine

5. Opioids, such as heroin and prescription painkillers, primarily affect which system in the brain?

- A) The endocannabinoid system
- B) The opioid receptor system**
- C) The acetylcholine system
- D) The histamine system

6. What is a significant characteristic of the disease model of addiction?

- A) It suggests addiction is curable with a single treatment
- B) It emphasizes the role of genetics and brain changes**
- C) It posits that addiction is solely caused by environmental factors
- D) It views addiction as a temporary social issue

7. Withdrawal symptoms are:

- A) The pleasurable effects experienced when using a substance
- B) The adverse physical and psychological effects that occur when stopping or reducing the use of an addictive substance**
- C) The cravings experienced after prolonged abstinence
- D) The changes in brain structure due to long-term use

8. Alcohol is classified as which type of psychoactive drug?

- A) Stimulant
- B) Depressant**
- C) Hallucinogen
- D) Opioid

9. The process by which the brain adapts to the presence of a drug, leading to a need for the drug to function normally, is known as:

- A) Sensitization
- B) Neuroplasticity
- C) Homeostasis**
- D) Downregulation

10. Which of the following is a common risk factor for developing addiction?

- A) Having a strong social support network
- B) High levels of self-esteem
- C) Genetics and family history**
- D) Engaging in regular physical activity

11. The concept of 'craving' in addiction refers to:

- A) A brief moment of desire for a substance
- B) A strong, often overwhelming, urge or desire to use a substance**
- C) The physical discomfort experienced during withdrawal
- D) The positive reinforcement received from substance use

12. Relapse in addiction is often characterized by:

- A) A sign of complete recovery
- B) A potential part of the recovery process, but not necessarily a failure**
- C) The absence of any temptation
- D) A guaranteed outcome for all individuals in recovery