

Introduction to Addiction Science

Addiction Science · Answer Key · 12 Questions

1. Which primary organ of the human body is most significantly affected by addictive substances?

- A) The heart
- B) The brain**
- C) The liver
- D) The lungs

2. What is the term for the biological process where the body requires a higher dose of a substance to achieve the same effect?

- A) Withdrawal
- B) Tolerance**
- C) Dependence
- D) Relapse

3. Which neurotransmitter is most commonly associated with the 'reward system' in the brain during drug use?

- A) Dopamine**
- B) Serotonin
- C) Adrenaline
- D) Melatonin

4. What is the clinical term for the symptoms that occur when a person stops using a substance they have become dependent on?

- A) Craving
- B) Tolerance
- C) Withdrawal**
- D) Overdose

5. Addiction is medically classified as a chronic disease of the:

- A) Digestive system
- B) Brain**
- C) Endocrine system
- D) Musculoskeletal system

6. Which of these factors is considered a biological influence on the risk of developing an addiction?

A) Peer pressure

B) Genetics

C) School environment

D) Income level

7. What is the main function of the brain's reward circuit?

A) To help us memorize facts

B) To reinforce behaviors necessary for survival

C) To regulate body temperature

D) To control involuntary muscle movement

8. According to scientific consensus, addiction involves a change in the brain's:

A) Bone density

B) Physical size

C) Chemical signaling

D) Skin color

9. Which brain region is primarily responsible for decision-making and impulse control, and is often affected by long-term substance use?

A) Cerebellum

B) Prefrontal cortex

C) Brain stem

D) Occipital lobe

10. What does the term 'psychoactive' mean when referring to a substance?

A) It changes brain function and alters perception or mood

B) It is used exclusively as a medicine

C) It is a legal substance

D) It increases physical height

11. Chronic drug use can lead to the down-regulation of dopamine receptors. What is the typical effect of this on the user?

A) Increased intelligence

B) Reduced ability to feel pleasure from natural rewards

C) Enhanced physical strength

D) Better sleep patterns

12. Which of the following is an example of a depressant substance?

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