

# Mindful Continuing Education

## Cocaine Facts

### What is Cocaine?

1. The two chemical forms of cocaine that are abused are the water-soluble hydrochloride salt and the water-insoluble cocaine base, which are either injected or snorted in a powder form or smoked after creating a base form.

- A. True
  - B. False
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### How is Cocaine Used?

2. Cocaine use ranges from occasional to repeated or compulsive use, with a variety of patterns between these extremes, and any route of administration can potentially lead to absorption of toxic amounts of cocaine, causing heart attacks, strokes, seizures, and even sudden death.

- A. True
  - B. False
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### What are Some Ways that Cocaine Changes the Brain?

3. Each of the following is a correct statement about the brain and cocaine EXCEPT:

- A. Animal studies show that cocaine exposure can cause significant neuroadaptations in neurons that release the excitatory neurotransmitter glutamate, and animals chronically exposed to cocaine demonstrate profound changes in glutamate neurotransmission
  - B. The ventral tegmental area seems to act as a critical integration site in the brain that relays information about both stress and drug cue to other areas of the brain, including ones that drive cocaine seeking
  - C. Cocaine increases the amount of the natural chemical dopamine in the brain, which impacts body movement, motivation, pleasure, and reward
  - D. Research suggests that cocaine elevates stress hormones, inducing neuroadaptations that further increase sensitivity to the drug and cues associated with it
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## **What are the Long-Term Effects of Cocaine Use**

**4. When cocaine users binge and use the drug repeatedly and at increasingly higher doses, this often causes anxiety, confusion, sleeping problems, reduced coordination and violent behavior.**

- A. True**
  - B. False**
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## **How is Cocaine Addiction Treated?**

**5. Factors to consider when treating cocaine addiction include:**

- A. The majority of individuals who seek treatment for cocaine use smoke crack and are likely to be polydrug users**
  - B. Several medications marketed for other diseases show promise in reducing cocaine use within controlled clinical trials, with disulfiram showing the most promise**
  - C. Researchers have developed and conducted early tests on a cocaine vaccine that could help reduce the risk of relapse by stimulating the immune system to create cocaine-specific antibodies that bind to cocaine, preventing it from getting into the brain**
  - D. All of the above**
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## **Behavioral Interventions**

**6. Cognitive-behavioral therapy (CBT) is an effective approach for preventing cocaine relapse by helping patients develop critical skills that support long-term abstinence, including the ability to recognize the situations in which they are most likely to use cocaine, avoid these situations, and cope more effectively.**

- A. True**
  - B. False**
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## **How is Cutting-Edge Science Helping Us Better Understand Addiction?**

**7. The two areas of science that are significantly advancing the understanding of cocaine addiction are brain imaging and:**

- A. Epidemiology**
- B. Genetics**
- C. Physiology**

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