Opioids: What You Need to Know

Your students may have already heard about the opioid crisis. An average of 130 people die every day from an overdose. But even if students have seen the headlines, they might not know what these drugs are—and their dangers. The student article “Opioids: What You Need to Know” and activity sheet What Causes Addiction? will help students understand important facts about opioids and guide them on how to be safe. Sharing these materials with your students will support them in making smart decisions and staying healthy.

Critical-Thinking Questions

1. Why have opioid overdoses increased? (Synthetic [or man-made] opioids like fentanyl have come into the country illegally. These opioids are very powerful. Even a very small amount can cause someone to stop breathing.)

2. What should a person do if they are prescribed an opioid? (Answers may include: ask for non-opioid treatments; share with their doctor any medical history that may make them more vulnerable to addiction, such as mental illness; follow the doctor’s directions exactly; only take the drugs to treat pain.)

3. How can medication help someone who is experiencing an opioid overdose? (If someone is experiencing an overdose, giving them a dose of naloxone can reverse the effects and save their life.)

Writing Prompts

Grades 6–8 Explain why prescription opioids pose health risks.

Grades 9–10 Explain how a person might increase their risk of health dangers associated with both prescription opioid medications and illegal opioids. Then, explain how they could reduce their risk.

Grades 11–12 What are some actions that individuals and medical professionals could take to help control the misuse of prescription opioid medications?

Paired Reading

“Sculpting Your Brain: The Science of Addiction” (teens.drugabuse.gov/blog/post/sculpting-your-brain-science-addiction)

This paired text explains how using drugs can affect brain development.

Writing Prompt Explain why teens are vulnerable to addiction. Use supporting text evidence from “Sculpting Your Brain: The Science of Addiction” and “Opioids: What You Need to Know.”

Activity Sheet Answers

1) Dopamine is a chemical that helps signals pass between nerve cells in the brain. Dopamine levels rise because of a pleasurable experience. This helps your brain remember that activity to repeat it.

2) Activities like eating chocolate cause dopamine levels to rise, which makes you want to repeat it. But drugs cause a much greater increase in dopamine. Over time, the brain craves the boost of dopamine it receives from drugs.

3) A person who is addicted to drugs has experienced changes in the way their brain works. The changes make the person crave drugs so that they continue to use them even if they experience negative consequences.

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What Causes Addiction?

**DIRECTIONS:** Read the text passage and study the diagrams below to learn how drugs such as opioids change the way the brain works. Then, use the information along with what you learned in the article to answer the questions that follow.

**DRUGS AND THE BRAIN**

Drugs affect the way signals are sent in the brain’s reward circuit. This network of structures is activated when you do something pleasurable.

Dopamine is a chemical that helps signals pass between nerve cells in the brain. When you do something enjoyable, such as eat chocolate, dopamine levels increase (see top diagram). Receptors detect the rise in dopamine. This helps your brain remember the pleasurable behavior so that you will most likely want to do it again.

Using drugs, including opioids, causes dopamine levels to rise much higher than with other enjoyable activities (see bottom diagram). When drugs are misused over time, the brain becomes used to the boost of dopamine that drugs deliver. This leads to powerful cravings that make it difficult to stop. The state of being ruled by these cravings is addiction.

**THINK IT THROUGH**

*Use a separate sheet of paper to record your answers to the questions below.*

1. What is dopamine? What role does it play in the brain?
2. Why are drugs more addictive than eating chocolate?
3. Explain why a person who is addicted to a drug might continue to use it even if they experience negative consequences?
4. The article “Opioids: What You Need to Know” explained that medications can help treat addiction. Based on what you learned above, how might these medications work? Explain your answer.

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From Scholastic and the scientists of the National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services