

Dose of Knowledge

Middle and High School

Prescription Medication Misuse and the Adolescent Brain and Body



Educator Guide

Introduction

In this interactive module, students will learn about the effects of prescription medication misuse on the developing adolescent brain and body. Students will use this information to help them make informed and responsible decisions when confronted with peer pressure regarding the misuse of prescription medications.

Time Required

15–20 minutes

Grade Levels

6–12

Topics

- Health promotion
- Health-enhancing behaviors
- Responsible use of prescription medication
- Impact of substance misuses on the adolescent brain and body

Key Vocabulary

- **Addiction:** a psychological and physical inability to stop consuming a substance or an activity even though it is causing harm
- **Depressants:** a drug often used to treat anxiety, panic, and sleep disorders and work by slowing brain activity
- **Direct Refusal:** saying “No” or “No, thank you” when encountering something you do not want to do
- **Exit Strategy:** a plan to get out of or away from a risky situation

- **Opioids:** a class of drugs that also cause Central Nervous System (CNS) depression
- **Prescription Drug:** a drug that can be obtained only by means of a physician’s prescription
- **Prescription:** an instruction written by a medical practitioner that authorizes a patient to be provided a medicine or treatment
- **Substance Misuse:** use of a substance, like drugs or alcohol, for nonmedical purposes in a manner that is harmful to oneself or others
- **Substance Use Disorder:** a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medication
- **Stimulants:** a substance that works by increasing alertness, attention, and energy

Hardware Recommendation

Prescription Medication Misuse and the Adolescent Brain and Body is accessible on any device. However, for optimal user experience, it is recommended that interactive modules are accessed via desktop or tablet. This interactive module is functional for use on mobile devices (iOS and Android).

Technical Specifications

While the Prescription Medication Misuse and the Adolescent Brain and Body interactive module will function in all browsers, including Internet Explorer, Safari, Chrome, and Firefox, browser load speeds will vary. For best performance, it is recommended that the most current version of your browser of choice is used when accessing the module. Please note that connection speeds may be impacted by factors such as highly trafficked shared Wi-Fi access, public Wi-Fi, and accessing module behind a firewall.

Overview

This interactive module has four main sections:

Introduction

Most prescription medications are used responsibly and as prescribed. However, there is always an opportunity for misuse and the pressure to misuse from others. Having the right information about the effects of prescription medication on your brain and body and the right strategies for responding to pressure can help you make safe choices.

Students will first meet Charlie. Charlie is a starter on the school's varsity soccer team and has recently suffered a knee injury that is causing her a lot of pain and getting in the way of her focusing on anything else. Charlie does not want to stop practicing or miss the championship game, so she turns to her friend Samantha for help. She knows that Samantha was prescribed an opioid pain medication after a recent wisdom tooth extraction. She has asked Samantha to share her prescription medication with her.

Investigate

Students will now do some research with Samantha to investigate some of the effects prescription medications have on our bodies and brains. They will also research some of the risks associated with misusing prescription medications to better understand what decision Samantha should make. Students will explore different types of prescription medication, investigate their effects on the body and brain, and examine what can happen after chronic misuse of prescription medications.

Act

Samantha chooses not to share her medication. Students will explore information about how she can communicate her choice to Charlie. Students will examine how they can respond to peer pressure by relying on human resources, using a direct refusal, using an exit strategy, or providing information of what they have learned to refuse.

Analyze

To summarize, a narrator will review main ideas from the module and invite students to share what they have learned about prescription medication.

Procedure

This interactive module is designed to be flexible to meet the needs of many different learning environments.

One-to-One Environment

Students using the interactive module for independent, self-paced learning can simply move through the module at their own pace.

Working in Pairs or at Centers

Students can take turns answering the questions throughout the interactive module, or they can work together to answer the questions. As students may have different reading levels, you will want to guide them to provide each group member with an opportunity to read and comprehend the information before moving on with the lesson.

Class Environment

If you are leading a group in a one-to-many environment, you can use a projector and screen or whiteboard to make the interactive module the focus of instruction and discussion. Use the questions in this guide and a show of hands during each topic to gauge student comprehension.

Customized Instruction

You may also choose to use discrete elements from the interactive module that fit your time frame and curriculum.

Path to Discovery

1. Explain that the purpose of this interactive module is to investigate the effects of prescription medication misuse on the developing adolescent brain and body. Students will use this information to help them make informed and responsible decisions when confronted with peer pressure regarding the misuse of prescription medications.
2. Read the discussion questions before starting the interactive module.
3. Guide students to respond to the questions, in writing, using evidence from the interactive module.
4. Explain that you will be available to support students as they work.
5. Review student responses to the discussion questions after they have completed the exploration.

Discussion Questions

Use evidence from the interactive module in your response.

1. It is important to use prescription medication as prescribed. Why are people prescribed medication? How can taking a medication not prescribed to you harm your brain and body?
2. When you misuse substances, like prescription opioids, what are two long-term risks? How can that impact things you enjoy doing?
3. Substance misuse can alter brain function. Why are adolescent, or teen brains, more at risk?
4. There are multiple ways to address peer pressure to misuse substances. What are two strategies you learned in the module that can help you respond to negative peer pressure?