

This module discusses two types of drugs found in cupboards across the United States—prescription drugs and inhalants. Both types of drugs have legitimate uses, and, when used as directed, they are not dangerous. However, because these drugs are legal and easily accessible in the home, they are often abused—and by younger and younger children. Misuse of these substances can lead to serious damage to the brain and body.

Information about these drugs has been included in the *Brain Power!* curriculum to deepen students' understanding of the function of drugs on the brain and body and to help students understand the risks associated with their misuse.

Summary

Prescription Drugs

Drugs prescribed by a physician can relieve pain and control the symptoms of many disorders and diseases. People who use prescription drugs as directed by a doctor are at a very low risk for addiction or other negative side effects. It is important to know how much medicine to take, how long to take it, and what other things can influence its effects on the body. Prescription medication should never be shared, and intentional misuse of prescription drugs can be dangerous. Three commonly abused prescription drugs are:

- Opioids, which are pain killers and include codeine, oxycodone (Oxycontin), and hydrocodone (Vicodin)
- Central nervous system depressants, which slow down the functioning of the brain and body and are often prescribed for anxiety, include drugs such as alprazolam (Xanax) and diazepam (Valium)
- Central nervous system stimulants, which speed up the functioning of the brain and body and include drugs prescribed for attention-deficit hyperactivity disorder (ADHD), such as methylphenidate (Ritalin), and diet pills

The Internet makes drugs easily accessible for abuse. E-mail inboxes are often full of spam e-mails offering the sale of prescription drugs without a prescription. When discussing these drugs with your children, bring up the topic of dangerous and misleading spam e-mails.

Inhalants

Inhalants are chemicals that are useful in many ways for things such as cleaning, but were never meant to enter the body. Inhalants are misused by sniffing or inhaling. They can be sprayed into the nose or mouth, inhaled from substances dropped into a bag (“bagging”), inhaled from a soaked rag (“huffing”), or inhaled from a balloon. Inhalants enter the bloodstream directly through the lungs and quickly travel to the brain. Commonly abused inhalants include spray paint, glues, and aerosols.

Scientists are investigating the exact way that inhalants affect the brain. The parts of the brain most affected by inhalants are the cerebral cortex, cerebellum, hippocampus, and brain stem. Some inhalants can also damage the myelin, the insulation that covers the axons of neurons. This is a concern because myelin helps messages travel through the neurons.

As part of this module, students were asked to create a Public Service Announcement, or PSA, about prescription drugs or inhalants. Radio and TV stations present PSAs at no cost, in an effort to raise awareness for various safety and health concerns. Prescription drug abuse and inhalant abuse are two drug topics that are not often in the spotlight, but carry serious health risks. Next time you see or hear a PSA, bring this topic up with your children. Remind students that prescriptions should never be shared; and that inhalants, found in many household products, are dangerous to misuse.

Resources

National Institute on Drug Abuse (NIDA)

www.drugabuse.gov, 301-443-1124

This Web site contains information about drug abuse as well as a section designed specifically for parents, teachers, and students.

National Clearinghouse for Alcohol and Drug Information (NCADI)

<http://ncadi.samhsa.gov>, 1-800-729-6686

NCADI is the world's largest resource for information and materials concerning substance abuse. Many free publications are available here.

Parents: The Anti-Drug

www.theantidrug.com

This site is designed for parents and covers the risks and consequences of various drugs, and provides news, advice, and real-life stories.

Buzzed: The Straight Facts About the Most Used and Abused Drugs from Alcohol to Ecstasy. Kuhn, C., Swartzwelder, S. and Wilson, W. New York: W. W. Norton & Company, 2003. A highly informative, detailed review of widely abused drugs.

Inhalants. Lobo, I.A. Philadelphia, PA: Chelsea House Publishers, 2004. Part of the "Drugs: The Straight Facts" series. Provides useful information about the different types of inhalants, how they act on the brain and body, usage trends, and health effects.

Prescription Pain Relievers. Foster, O.M. Philadelphia, PA: Chelsea House Publishers, 2005. Part of the "Drugs: The Straight Facts" series. Contains a thorough discussion of prescription pain relievers, including how they act in the brain, health effects, and usage trends. This book helps students understand the connection between these prescription pain relievers and how the brain changes as a result of the use of these substances.

Ritalin and Other Methylphenidate-Containing Drugs. Ferreiro, C. Philadelphia, PA: Chelsea House Publishers, 2003. Part of the "Drugs: The Straight Facts" series. The book provides a thorough discussion of Ritalin and ADHD, with facts about abuse.