











Glen Hanson • Peter Venturelli











Drugs and Society

Sixth Edition

Glen Hanson

Department of Pharmacology and Toxicology University of Utah Salt Lake City, Utah

Peter J. Venturelli

Department of Sociology Valparaiso University Valparaiso, Indiana

Annette E. Fleckenstein

Contributing Author Department of Pharmacology and Toxicology University of Utah Salt Lake City, Utah



IONES AND BARTLETT PUBLISHERS

Sudbury, Massachusetts TORONTO

BOSTON

LONDON

SINGAPORE

World Headquarters Jones and Bartlett Publishers 40 Tall Pine Drive Sudbury, MA 01776 978-443-5000 info@jbpub.com www.jbpub.com

Jones and Bartlett Publishers Canada 2406 Nikanna Rd. Mississauga, Ontario CANADA L5C 2W6

Jones and Bartlett Publishers International Barb House, Barb Mews London W6 7PA UK

Copyright © 2001 by Jones and Bartlett Publishers, Inc.

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

Library of Congress Cataloging-in-Publication Data

Hanson, Glen, (Glen R.)

Drugs and society / Glen Hanson, Peter J. Venturelli. — 6th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-7637-1391-0

1. Drugs. 2. Drugs-Toxicology. 3. Drug abuse.

I. Venturelli, Peter J.

RM301.W58 2000

615'.1-dc21

00-027369

Chief Executive Officer: Clayton Jones Chief Operating Officer: Don W. Jones, Jr.

Executive Vice President and Publisher: Tom Manning

V.P., Sales and Marketing: Paul Shepardson V.P., College Editorial Director: Brian L. McKean

V.P., Managing Editor: Judith H. Hauck V.P., Design and Production: Anne Spencer

Acquisitions Editor: Suzanne Jeans Associate Editor: Amy Austin

Marketing Manager: Lynn Protasowicki Production Editor: Rebecca S. Marks

Editorial/Production Assistant: Amanda Green

Director of Manufacturing and Inventory Control: Therese Bräuer

Cover Design: Mark Rodrigues

Design and Composition: Thompson Steele, Inc.

Printing and Binding: Courier Cover printing: Courier

Photo Credits

(PNI refers to Publishers Depot)

p.2: © Bob Daemmrich / Stock Boston / PNI; p.6: CNRI / Phototake / PNI; p.8: left, @ Michael Newman / Photoedit / PNI; right, Tek Image / Photo Researchers, Inc.; p.28: @ Blair Seitz / Photo Researchers; p.58: @ Dennis Brack / Black Star; p.63: @ Leonard McCombe / Life Magazine @ Time, Inc.; p.74: ©Tony Freeman / Photoedit; p.84: © Joshua Bucklan / Black Star; p.93: @ Mary Kate Denny / Photoedit / PNI; p.97: @ Hank Morgan / Rainbow / PNI; p.101: @ Spencer Grant / Stock, Boston / PNI; p.110: @Gary Watson / Photo Researchers; p.116: @ Paul Miller / Black Star / PNI; p.136: @ Larry Barns / Black Star; p.158: @ Arthur Tress / Photo Reearchers; p.162: @ Michael P. Gadomski / Photo Researchers; p.172: @ Michael P. Gadomski / Photo Researchers, Inc.; p.175: @ Bruno Barbey / Magnum / PNI; p.180: Bachmann / Photo Researchers; p.182: @ Bob Daemmrich / Stock Boston / PNI; p.191: top, @ M. Huberland / Photo Researchers; bottom, @ Martin M. Rotker, Science Source / Photo Researchers; p.192: @ Mickey Mantle / Black Star / PNI; p.194: @Ted Wood / Black Star; p.198: @ Bob Daemmrich / Stock Boston / PNI; p.210: @ Rob Nelson / Black Star; p.212: © Shelley Boyd / Photoedit / PNI; p.214: © Kevin Beebe / Custom Medical Stock Photo; p.215: @ Dan Habib / Impact Visuals / PNI; p.226: © Jim Levitt / Impact Visuals / PNI; p.228: © Rick Strange / The Picture Cube; p. 236: © Allan Clear / Impact Visuals / PNI; p.237: © Joe Rodriquez / Black Star / PNI; p.239: Fotos International / Archive Photos / PNI; p.241: © Dennis MacDonald / PhotoEdit / PNI; p.252: © Lisa Quinones / Black Star; p.263: @ David Maung / Impact Visuals / PNI; p.265: @ Mireille Vautier / Woodfin Camp / PNI; p.266: Courtesy of the Drug Enforcement Administration, Washington, DC; p.267: Bettmann; p.269: @ Richard Sobol / Stock Boston / PNI; p.271: @ Lawrence Migdale / Stock Boston / PNI; p.276: @ Angell Horn / Impact Visuals / PNI; p.290: @ Erica Lansner / Black Star; p.299: Wide World Photos; p.296: The Bettmann Archive; p.308: @ Ansell Horn / Phototake / PNI; p.309: Biomedical Communications / Photo Researchers, Inc.; p.312: © Jonathan Daniel / Allsport / PNI; p.323: Courtesy Ciby-Greigy Corp.; p.334: @ Gene Anthony / Black Star / PNI; p.337: © Gordon Baer / Black Star / PNI; p.338: @ Michael Sullivan / Black Star / PNI; p.343: @ Michael Newman / PhotoEdit / PNI; p.345: Courtesy of Dr. Glen Hanson; p.347: @ R Konig / Photo Researchers; p.349: Courtesy of the Drug Enforcement Agency, Washington, DC; p.356: @ John Bova / Photo Researchers; p.392: Custom Medical Stock; p.364: @ Gabe Kirchheimer / Black Star; p.401: Wide World Photos; p.414: Vision / Photo Researchers; p.420: © Rob Nelson / Black Star; p.422: Custom Medical Stock Photo; p.431: @ Mark Clarke / Science Photo Library; p.406: @ Alexander Tsiaras / Stock Boston / PNI; p. 442: @ Jeff Scheid / AP Photo; p.466: @ Alon Reininger / Contact Press Images / PNI; p.486: @ Rob Nelson / Black Star; p.488: Courtesy of the Partnership for a Drug-Free America; p.497: @ PF Bentley / Black Star / PNI; p.500: @ Blair Seitz / Photo Researchers



Preface

Drugs and Society is intended to convey to students the impact of drug use and/or abuse on the lives of ordinary people. The authors have combined their expertise in the fields of drug abuse, pharmacology and sociology with their extensive experiences in research, teaching, and drug-policy implementation to improve this sixth edition over the previous five versions of this book. To make the sixth edition of Drugs and Society an exceptional text on drugrelated problems, this book is written at a more personal level and directly addresses college students by incorporating personal experiences and attitudes throughout the chapters. This significant improvement makes Drugs and Society truly unique. The approach was implemented in response to suggestions from readers and instructors to further stimulate students' comprehension and assimilation of this information.

Drugs and Society was written to assist university students from a wide range of disciplines to gain a realistic perspective of drug-related problems in our society. Students in nursing, physical education and other health sciences, psychology, social work, and sociology will find that our text provides useful current information and perspectives to help them understand:

- 1. why and how drug abuse occurs;
- 2. the results of drug abuse;
- 3. how to prevent drug abuse;
- how drugs can be used effectively for therapeutic purposes.

To achieve this goal, we have presented the most current and authoritative views on drug abuse in an objective and easily understood manner. To help students appreciate the multifaceted nature of drug-related problems, this edition exposes readers to drug abuse issues from pharmacological, psychological and sociological perspectives. Besides including the most current information concerning drug abuse topics, each chapter also includes helpful learning aids for students. These include:

- ▲ Fighting the Drug War Vignettes intended to help the readers assess governmental efforts to deal with drug-related problems.
- ▲ Finding a Balance These short essays by Brian Luke Seaward present creative ways of dealing with personal problems that help students see that there are effective alternatives to drugs.
- ▲ Case in Point Examples of relevant clinical issues that arise from the use of each major group of drugs discussed.
- ▲ Exercises for the Web Questions based on information available in identified web sites. These exercises guide students' access to constantly updated web material on drug use and abuse, and encourage students to research organizations or groups which have relevance to the topics of the associated chapter.
- ★ Here and Now Current events that illustrate the personal and social consequences of drug abuse issues.
- ▲ *Highlighted definitions* Definitions of new terminology. These are conveniently located adjacent to their discussion in the text throughout the chapters.
- ▲ Learning objectives Goals for learning identified at the beginning of each chapter to help students identify the principal concepts being taught.
- ▲ Summary statements Concise summaries found at the end of each chapter which correlate with the learning objectives mentioned above.
- ▲ Chapter questions Provocative questions at the end of each chapter. These encourage

students to discuss, ponder, and critically analyze their own feelings and biases about the information presented in the book.

- ▲ Concise and well-organized tables and figures
 Updated features found throughout the book
 present the latest information to students in an
 easily understood format.
- ▲ New color photographs and drawings These additions graphically illustrate important concepts and facilitate comprehension as well as retention of information.

Because of these new and updated features, we believe that this edition of *Drugs and Society* is much more "user friendly" than the previous editions and will encourage student learning and motivation.

The new topical coverage in the sixth edition of *Drugs and Society* includes:

- ▲ Extensive, updated material and references with many citations from studies published between 1994 and 2000.
- ▲ A new chapter on inhalants.
- ▲ Updated information on ecstasy and tobacco legislation.

The material in the text encompasses biomedical, sociological and social-psychological views.

Beginning with Chapter 1, Drugs and Society introduces an overview: the current dimensions of drug use (statistics and trends) and the most commonly abused drugs at the turn of the century. Chapter 2 comprehensively explains drug use and abuse from a theoretical standpoint. The latest biological, psychological, social-psychological and sociological perspectives are explained. Chapter 3 discusses how the law deals with drug use and/or abuse of both licit (alcohol, OTC and prescription) and illicit (marijuana, hallucinogens and cocaine) drugs. Chapter 4 focuses on addictive behavior and treating drug dependence. Chapter 5 instructs students about the factors that determine how drugs affect the body. This chapter details the physiological and psychological variables that determine how and why people respond to drugs used for therapeutic and recreational purposes. Because the addicting properties of most, if not

all, substances of abuse are due to the effects of drugs on the reward centers of the brain, chapter 6 helps the student understand the basic biochemical operations of the nervous and endocrine systems and explains how psychoactive drugs and anabolic steroids alter such functions.

Chapters 7 through 15 deal with specific drug groups that are commonly abused in this country. Those drugs which depress brain activity are discussed in Chapters 7 (sedative/hypnotic agents), 8 and 9 (alcohol), and 10 (opioid narcotics). The drugs which stimulate brain activity are covered in chapters 11 (amphetamines, cocaine, and caffeine) and 12 (tobacco and nicotine). The last main category of substances of abuse is the hallucinogens. Such drugs alter the senses and create dreamlike and/or distorted experiences. These substances are discussed in chapters 13 (hallucinogens such as LSD, mescaline, and PCP) and 14 (marijuana). The new chapter 15 discusses inhalants, substances that are growing in popularity with youth. Although most drugs that are abused cause more than one effect (for example, cocaine can be a stimulant and a hallucinogen), the classification we have chosen for this text is frequently used by experts and pharmacologists in the drug abuse field and is based on the drug effect that is most likely to predominate following abuse. All of the chapters in this section are similarly organized. They discuss the historical origins and evolution of the agents so students can better understand society's attitudes toward, and regulation of, these drugs. Previous and current clinical uses of these drugs are discussed to help students appreciate distinctions between therapeutic use and abuse. Next, the patterns of abuse of these substances and special features which contribute to their abuse potential are discussed. Finally, nonmedicinal and medicinal therapies for drug-related dependence, withdrawal, and abstinence are presented.

Chapter 16 explores the topic of drugs and therapy. As with illicit drugs of abuse, nonprescription and prescription drugs can be misused if not understood. This chapter helps the student to appreciate the uses and benefits of proper drug use as well as appreciate that legal drugs can also be problematic.

Chapter 17 explores drug use in five major subcultures: sport/athletic, women, adolescent,

PREFACE Xi

college student, HIV-positive and entertainment. Included in this chapter is a discussion of a new media drug subculture that has just recently arisen.

Chapter 18 of *Drugs and Society* acquaints students with the treatment, rehabilitation, and prevention of the major drugs of abuse. This final chapter describes the principal sociological, psychological and pharmacological strategies used to treat and prevent substance abuse and details their advantages and disadvantages. The discussion in this chapter helps students to better understand why drug abuse occurs, how society currently deals with this problem on an individual and group basis, and the likelihood of rehabilitation of persons dependent on these substances.

The Appendix of the sixth edition includes an explanation of federal agencies with drug abuse missions, and elucidates details of important legislative actions which regulate drug availability and proper use. In addition, a detailed description of schedules for drugs of abuse and the penalties for their illicit manufacturing, selling, or administration is presented.

Instructor's Aids

The ancillary package for the sixth edition includes the most contemporary technology. For instructors who adopt the sixth edition, an Instructor's Toolkit CD-ROM is available. Designed for classroom use, this CD contains lecture outlines in PowerPoint format, a computerized testbank, instructor's manual, and an image bank. Other instructor resources such as web exercises and lecture outlines can be found on Drugs and Society Online (www.jbpub.com/dsonline). Student flashcard reviews are also available. Cyberclass is a customizable, web-based teaching and learning environment with a syllabus maker, test generator, student review, lecture enhancement and course management tools, and messaging. For additional information call your Jones and Bartlett Publisher's Representative.

Acknowledgments

The many improvements that have made this the best edition yet of the *Drugs and Society* series could not have occurred without the hard work and dedication of numerous people.

Peter L. Myers, Ph.D. rewrote several chapters for the fifth edition. He extensively revised the chapters on Alcohol and Social Behavior and on Marijuana, and added many new pages of updated text. He wrote a new Addiction and Treatment chapter for the fifth edition and collaborated on the Prevention chapter. Dr. Myers is Professor and Director of the Addiction Counselor Training Program at Essex County College in Newark, NJ and President of the International Coalition of Addiction Studies Educators.

Brian Luke Seaward, Ph.D., of the Center for Human Caring at the University of Colorado, wrote the Finding a Balance boxes. This important feature of the book benefits from his long experience and deep study of coping strategies and holistic approaches to stress management.

Amy Austin and Rebecca Marks shepherded the project through its final production stages and made it all come together into a book.

We are indebted to the many reviewers who evaluated the manuscript at different stages of development. Much of the manuscript was reviewed and greatly improved by comments from:

Scott Alpert University of Maryland

Karamarie Fecho University of North Carolina – Chapel Hill

Myrna Hewitt University of Massachusetts - Amherst

Keith King University of Cincinnati

Robin Lewis Allan Hancock College

Susan Cross Lipnickey Miami University Michael Maina Valdosta University

Jennifer McLean Corning Community College James Pahz Central Michigan University

Ray Tricker Oregon State University

The authors would like to express, once again, their gratitude for the comments and suggestions of users and reviewers of previous editions of *Drugs and Society*.

At Valparaiso University, Professor Venturelli is grateful to students Jaron Theye, Kirsten Smith, George Corsianos, and Shane Blackstone for their tireless assistance. Also gratefully acknowledged are the countless other students and working people who were interviewed regarding their views and/or use of drugs. Finally, noteworthy ap-

preciation also goes to Ellen B. Meyer and Alice M. Koby, reference librarians at Valparaiso University's Moellering Library, especially when references were incomplete and deadlines loomed.

At our respective institutions, the authors would like to thank a multitude of people too numerous to list individually but who have given us invaluable assistance.

Dr. Hanson is particularly indebted to his wife, Margaret, for her loving encouragement. Without her patience and support this endeavor would not have been possible.

Bı

Brief Contents

Chapter I	Introduction to Drugs and Society 2		
Chapter 2	Explaining Drug Use and Abuse 28		
Chapter 3	Drug Use and the Law 58		
Chapter 4	Addictive Behavior and Treating Drug Dependence 84		
Chapter 5	How and Why Drugs Work 110		
Chapter 6	Homeostatic Systems and Drugs 136		
Chapter 7	CNS Depressants: Sedative-Hypnotics 158		
Chapter 8	Alcohol (Ethanol): Pharmacological Effects 180		
Chapter 9	Alcohol: A Behavioral Perspective 198		
Chapter 10	Narcotics (Opioids) 226		
Chapter 11	Stimulants 252		
Chapter 12	Tobacco 290		
Chapter 13	Hallucinogens (Psychedelics) 334		
Chapter 14	Marijuana 364		
Chapter 15	Inhalants 392		
Chapter 16	Over-the-Counter (OTC) and Prescription Drugs 406		
Chapter 17	Drug Use Within Subcultures 442		
Chapter 18	Drug Abuse Prevention 486		



Contents



Preface	ix	Theories Based on Learning Processes 36 Social Psychological Learning Theories 37
	2	Sociological Explanations 38 Social Influence Theories 39 Structural Influence Theories 47 Danger Signals of Drug Abuse 51 Making Low-Risk Choices 52
Most Commonly Abused Drugs 6		
An Overview of Drugs in Society 10 How Widespread is Drug Use? 10 Extent and Frequency of Drug Use in Society Types of Drug Users/Abusers 14	11	
Mass Media Influences on Drug Use in Everyo	day	Cultural Attitudes About Drug Use 61
Life 15 The Attraction of Drug Use and Some Patterns of Drug Abuse 16 When Does Use Lead to Abuse? 17 Drug Dependence 18 The Cost of Drug Use to Society 18 Drugs and Crime 20 Drugs in the Workplace: A Costly Affliction 20		The Road to Regulation and the FDA 61 Prescription Versus OTC Drugs 62 The Rising Demand for Effectiveness in Medicinal Drugs 63
		Drug Abuse and the Law 65 Drug Laws and Deterrence 67 Factors in Controlling Drug Abuse 69
Employee Assistance Programs (EAPs) 22 Venturing Beyond: A Holistic Approach to Drug Use 23		Strategies for Preventing Drug Abuse 70 Supply Reduction Strategy 70 Demand Reduction Strategy 71 Inoculation Strategy 72
■ Chapter 2 Explaining Drug Use and Abuse	28	Current and Future Drug Use and Abuse Regulation 72 Drug Legalization Debate 75 Drug Testing 77 Pragmatic Drug Policies 78
A Timeless Affliction 30		
Biological Explanations 32 Are Abused Drugs Positive Reinforcers? 33 Drug Abuse and Psychiatric Disorders 33 Genetic Explanations 34		
Psychological Explanations 35 Distinguishing Between Substance Abuse and Mental Disorders 35		The Origin and Nature of Addiction 86 The American Problem 87

Defining Addiction 87

Use 36

The Relationship Between Personality and Drug

CONTENTS V

Models of Addiction 88 Causes of Addiction 89	of Dependence 129
The Addictive Process 92 Vicious Cycles 92 Stages of Addiction 93 Examining the Addictive Potential of Drugs 94	Hereditary Factors 130 Drug Craving 130 Other Factors 130
Nondrug Addictions? 94 The Treatment of Addiction 95	
Alcoholics Anonymous (AA) 96 Rehabilitation Facilities 99	▲ Chapter 6
Detoxification Units 99 Therapeutic Communities 100	Homeostatic Systems and Drugs 136
Outpatient Treatment 100 Addiction Treatment versus Psychotherapy 101	1: Overview of Homeostasis and Drug Actions 138
Addiction Treatment versus Psychotherapy 101 Commonalities in Treatment 101	Introduction to Nervous Systems 138
Current Trends in Providing Treatment Services 102	2: Comprehensive Explanation of Homeostatic Systems 140
Chapter 5 How and Why Drugs Work 110	The Building Blocks of the Nervous System The Neuron: The Basic Structural Unit of the Nervous System 140 The Nature of Drug Receptors 142 Agonistic and Antagonistic Effects on Drug Receptors 143
,,	Neurotransmitters: The Messengers 144 Major Divisions of the Nervous System 147
The Intended and Unintended Effects of Drugs 112	The Central Nervous System 147
The Dose-Response Relationship of Therapeutics and Toxicity 114	The Autonomic Nervous System 149
Margin of Safety 114 Potency Versus Toxicity 115	The Endocrine System and Drugs 151 Endocrine Glands and Regulation 151 The Abuse of Hormones: Anabolic Steroids 152
Drug Interaction 115 Additive Effects 116	Conclusion 153
Antagonistic (Inhibitory) Effects 116 Potentiative (Synergistic) Effects 117 Dealing with Drug Interactions 118	
Pharmacokinetic Factors That Influence Drug Effects 118	▲ Chapter 7
Forms and Methods of Taking Drugs 118	CNS Depressants:
Distribution of Drugs in the Body and Time-Response Relationships 120	Sedative-Hypnotics 158
Inactivation and Elimination of Drugs from the Body 121 Physiological Variables That Modify Drug Effects 122 Pathological Variables That Modify	An Introduction to CNS Depressants The History of CNS Depressants The Effects of CNS Depressants: Benefits and Risks 162
Drug Effects 123	Types of CNS Depressants 163
Adaptive Processes and Drug Abuse 123 Tolerance to Drugs 123 Drug Dependence 126	Benzodiazepines: Valium-Type Drugs 163 Barbiturates 167 Other CNS Depressants 170
Psychological Factors 128 The Placebo Effects 129	Patterns of Abuse with CNS Depressants 173 Treatment for Withdrawal 176



■ Chapter 8 Alcohol (Ethanol): Pharmacological Effects	180
The Nature and History of Alcohol 182	
Alcohol as a Drug 183 Alcohol as a Social Drug 183 Impact of Alcohol 183	
The Properties of Alcohol 184	
The Physical Effects of Alcohol 185 Alcohol and Tolerance 186 Alcohol Metabolism 187 Polydrug Use 187 Short-term Effects 187	
Effects of Alcohol on Organ Systems and Bodily	r
Functions 190 Brain and Nervous System 190 Liver 191 Digestive System 192 Blood 192 Cardiovascular System 193 Sexual Organs 193 Endocrine System 193 Kidneys 193 Mental Disorder and Damage to the Brain The Fetus 194 Malnutrition 194 Chapter 9	193
Alcohol: A Behavioral Perspective	198
The Alcoholic Society 200 Alcohol in America 202 Historical Considerations 202 Defining Alcoholics 203 Types of Alcoholics 204	
Culture and Alcohol 204 Maps and Definitions of Chemicals 204 Evaluation of Alcohol 204 Culture and "Disinhibited" Behavior 205	

Cultural Rules State How Much One Can Drink,

and Where 205

Cultures Provide Ceremonial Meaning
to Alcohol Use 205
Culture Provides a Model of Alcoholism 206
Attitudes Regarding Drinking
in the United States 207
Alcohol Abuse Among College
and University Students 208
Women Drinkers in the General Population 211
The Role of Alcohol in Domestic Violence 212
Alcohol and Sexuality 213
Alcohol and the Family: Destructive Support and
Organizations for Victims of Alcoholics 213
Treatment of Alcoholism 214
Helping the Alcoholic Family Recover 217

▲ Chapter 10 Narcotics (Opioids)

226

What Are Narcotics? 228
The History of Narcotics 228
Opium in China 229
American Opium Use 230
Pharmacological Effects 231
Narcotic Analgesics 231
Other Therapeutic Uses 232

Side Effects 233

Mechanisms of Action 232

Abuse, Tolerance, Dependence, and Withdrawal 233 Heroin Abuse 234 Treatment of Heroin and

Other Narcotic Dependence 241

Other Narcotics 244
Morphine 244
Methadone 245
Fentanyl 245
Hydromorphone 246
Meperidine 246
Codeine 247
Pentazocine 247
Propoxyphene 247

Narcotic-Related Drugs 247
Dextromethorphan 247
Clonidine 248
Naloxone 248



■ Chapter I I Stimulants	252	▲ Chapter 13 Hallucinogens (Psychedelics)	334
Major Stimulants 254 Amphetamines 254 Cocaine 264 Current Attitudes and Patterns of Abuse Minor Stimulants 277	268	The History of Hallucinogen Use 336 The Native American Church 336 Timothy Leary and the League of Spiritual Discovery 337 Hallucinogen Use Today 338	
Caffeine 277 OTC Sympathomimetics 282 Herbal Stimulants 283		The Nature of Hallucinogens 338 Sensory and Psychological Effects 339 Mechanisms of Action 341	
		Types of Hallucinogenic Agents 341 Traditional Hallucinogens: LSD Types 34 Phenylethylamine Hallucinogens 352 Anticholinergic Hallucinogens 354 Other Hallucinogens 356	42
Tobacco	290		
Tobacco Use: Scope of the Problem 293 Current Tobacco Use 293 The History of Tobacco Use 294 Popularity in the Western World 294 History of Tobacco Use in America 295		■ Chapter 14 Marijuana	364
Pharmacology of Nicotine 304		Introduction 366	
Physiological Effects 303 Addictive Characteristics of Nicotine 305 Clove Cigarettes 304	;	History and Trends in Marijuana Use 366 Characteristics of Cannabis 370	
Cigarette Smoking: A Costly Addiction 305 Mortality Rates 306 Chronic Illness 307 Effects on the Fetus 309 Tobacco Use Without Smoking 311 Secondhand and Sidestream Smoke 314		The Behavioral Effects of Marijuana Use 371 Subjective Euphoric Effects 372 Driving Performance 374 Critical Thinking Skills 374 The Amotivational Syndrome 375 The Physiological Effects of Marijuana Use 3	.77
Who Smokes? 315 Reasons for Smoking 318		Effects on the Central Nervous System 37 Effects on the Respiratory System 378	
Relapse or Readdiction 319 The Motivation Not to Smoke 320 Alternative Activities for Successfully Quitting 323 Smoking Cessation Aids 323		Effects on the Cardiovascular System 378 Effects on Sexual Performance and Reproduction 379 Tolerance and Dependence 380 Chronic Use 382 Therapeutic Uses 382	
Social Issues: Looking to the Future 325 Economic Interests 325 Tobacco as a Gateway Drug 326 Smoking Prohibition Versus Smokers' Righ	ts 327	Marijuana and Youth 385 Marijuana: Assassin of Youth? 385 Peer Influences 386 The Role of Marijuana as a Gateway Drug Inaccuracy in Estimates of Marijuana Use	387 387



Drug Use in Adolescent Subcultures 459
Why Adolescents Use Drugs 460
Patterns of Drug Use in Adolescents 461
Consequences and Coincidental Problems 462

	Prevention and Treatment of Adolescent Drug Problems 467 Summary of Adolescent Drug Abuse 469 Drug Use in College Student Subcultures 469 Other Noteworthy Findings Regarding Drug Use by College Students 470 Summary of Drug Use in College Student Subcultures 473 Drug Use in HIV-Positive Subcultures 473 Nature of HIV Infection and Related Symptoms 474 Protease Inhibitors 474 Diagnosis 476 Who Gets AIDS? 476 AIDS and Drugs of Abuse 477 What to Do About HIV and AIDS 478		
✓ Chapter 16Over-the-Counter (OTC)and Prescription Drugs406	Promoting Drug Use in the Subculture of the Entertainment Industry and a New Media Subculture 479 A New Media Subculture? 479		
OTC Drugs 408 Abuse of OTC Drugs 408 Federal Regulation of OTC Drugs 409 OTC Drugs and Self-Care 410 Types of OTC Drugs 411 OTC Herbal Products 423			
Prescription Drugs 423 Prescription Drug Abuse 424 Proper Doctor-Patient Communication 424 Drug Selection: Generic Versus Proprietary 426 Common Categories of Prescription Drugs 428 Common Principles of Drug Use 436	Using Education to Control Drug Use 491 Considering the Audience and Approach 491 Curriculum-Based Drug Education Objectives 492 Alternatives to Drug Use 493 Assessing the Success of Prevention Efforts 497 Drug Prevention Programs in Higher		
■ Chapter 17 Drug Use Within Subcultures 442	Education 499 Appendices		
Athletes and Drug Abuse 444 Drugs Used by Athletes 445 Prevention and Treatment 452	Appendix A Federal Agencies with Drug Abuse Missions 506		
Drug Use Among Women 453 Patterns of Drug Use: Comparing Females with Males 453	Appendix B Regulating the Development of New Drugs 508 Appendix C Some National Organizations		
Female Roles and Drug Addiction 454 Women's Unique Response to Drugs 455 Treatment of Drug Dependency in Women 458	in the Addictions 513 Appendix D Drug Use and Abuse 514 Index 505		

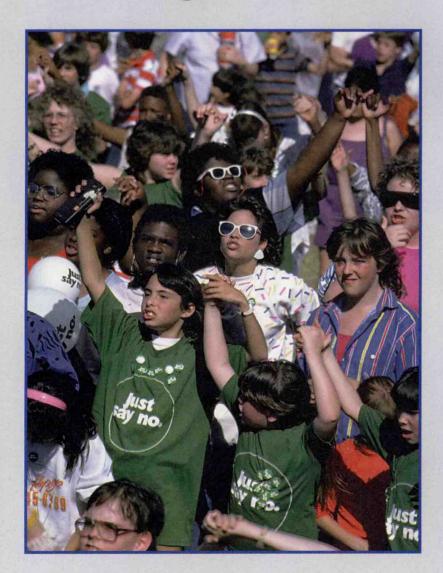


Drugs and Society





Introduction Drugs and Society



On completing this chapter you will be able to:









Did You Know?

- The popular use of legal drugs, particularly alcohol and tobacco, has caused far more deaths, sickness, violent crimes, economic loss, and other social problems than the use of illegal drugs.
- Designer drugs are created for profit and are used as a method for circumventing the laws that make certain substances illegal.
- Attempts to regulate drug use were made as long ago as 2240 B.C.
- Drug use is an "equal-opportunity affliction," meaning that both legal and illegal drugs are consumed in all

- income, social class, and age groups.
- Approximately 1.5 billion prescriptions for psychoactive drugs are written each year.
- More varieties of drugs are available today. Approximately 80% of all drugs that are currently marketed were either unknown or unavailable 20 years ago.
- The majority of young drug abusers come from homes in which drugs are used extensively.
- ➤ In 1998, an estimated 13.6 million Americans were current illicit drug users—that

- is, they had used an illicit drug in the month prior to their interview. This figure represents 6.2% of the population 12 years old and older.
- ➤ The alcohol industry alone spends more than \$1 billion annually on advertising.
- Addiction involves five phases that are often independent of one another.
- ➤ The majority of illicit drug users are employed. 73% of drug users in the United States are employed either full- or part-time; this number represents more than 8 million workers.

Learning Objectives

- Explain how drug use is affected by pharmacological, cultural, social, and contextual factors.
- Recognize the key terms for initially understanding drug use.
- Explain when drugs were first used and under what circumstances.
- Indicate how widespread drug use is and who the potential drug abusers are.

- List four different reasons why drugs are used.
- Rank in descending order, from highest to lowest, the most commonly used licit and illicit drugs.
- Name three types of drug users, and explain how they differ.
- Describe how the mass media promotes drug use.

- Explain when drug use leads to drug abuse.
- List and explain the phases of drug addiction.
- Define employee assistance programs (EAPs) and explain their role in resolving productivity problems.
- Describe the holistic health approach.

Each year the world undergoes a transformation—a form of technological evolution. Technology is driving social change more than ever before. The way people function and interact is constantly in a state of flux. Life is changing so rapidly that a constant pressure is exerted to keep up, stay current, and keep pace with rapid change. To handle this pressure, many people turn to using or abusing drugs. Despite all of our knowledge about the dangers of drug use and abuse, and despite the laws prohibiting such consumption, numerous people use both legal and illegal types of drugs.

Abuse and addiction to any type of drug can happen to anyone. The use of drugs before the onset of potential addiction is easily as seductive and nondiscriminating as its users. Many reasons explain this attraction, as drugs alter body chemistry by interfering with its proper functioning and by altering the reception and transmission of reality. Many would argue that our "reality" would become perilous and unpredictable if people were legally free to dabble in many drugs. Many do not realize, however, that if abused, even legal drugs can alter our perception of reality and become addictive.

In this introductory chapter, we answer some key questions related to drug use:

- 1. What constitutes a drug?
- 2. What are the most commonly abused drugs?
- 3. What are designer drugs?
- 4. How widespread is drug abuse?
- 5. What is the extent and frequency of drug use in our society?
- 6. What are the current statistics on and trends in drug use?
- 7. What types of drug users exist?
- 8. How do the mass media influence drug use?
- 9. What attracts people to drug use?
- 10. When does drug use lead to drug dependence?
- 11. When does drug addiction occur?
- 12. What are the costs of drug addiction to society?
- 13. What can be gained by learning about the complexity of drug use and abuse?

The Dimensions of Drug Use

To determine the perception of drug use in our country, we asked several interviewees, "What do you think of drug use in our society?" The following are two responses:

I think it is a big problem, especially when there are so many people doing drugs. Just think how many people are on drugs right now, this very minute, throughout the United States. How many drug users are in the workplace, driving trucks, making investment transactions, and even performing surgery? It's downright horrifying when you think about it. How many kids are not learning much, if anything, in classrooms across the nation because they are flying high while the teacher is talking?

From Venturelli's research files, 28-year-old female newspaper reporter in a Midwestern city, October 8, 1996

[Another respondent answering the same question]

Every effort by the government to stop illegal drug use has failed miserably. Even legal drug use, like alcohol and cigarettes, continues despite what the governmental public health media say. People should be left alone about their drug use unless such drug use is potentially harmful to others. I know that if I ever quit using both legal and illegal drugs it will be my own decision, not because the law can punish me. Yes, drug use is a problem for the addicted, but all throughout our history, drug use has been there. So why worry about it now?

From Venturelli's research files, 24-year-old male graduate student, October 3, 1996

These two interviews reflect contrasting attitudes with regard to drug use. The greatest differences of opinion often result from prior socialization experiences, such as family upbringing, peer group relationships, exposure to drug use or drug users, age, and so on.

In its entirety, this book views pharmacological, cultural, social, and contextual issues as the four principal factors responsible for determining how a drug user experiences drug use. These factors are defined as follows: