

Contents

Preface	xi	The Method by Which a Compound is Administered	19
CHAPTER 1		Bioavailability	21
Why Worry About Substance Abuse?	1	The Drug Half-Life	25
The SUDs as Unsuspected Influences on Society	2	The Effective Dose	26
The Scope of the Problem of SUDs	3	The Lethal Dose and Therapeutic Index	27
The Cost of Chemical Abuse/Addiction	5	Therapeutic Threshold and Peak Effects	27
Who Treats People with an SUD?	7	The Site of Action	27
Society's Response	7	The Process of Neurotransmission	28
CHAPTER 2		The Receptor Site	28
The Nature of the Beast	9	Potency	30
Why Do People Choose to Use Drugs or Alcohol?	9	The Blood-Brain Barrier	30
The Continuum of Chemical Use	10	Chapter Summary	31
If They Are So Destructive, Why Do People Abuse Chemicals?	11	CHAPTER 4	
What Do We Mean When We Say that Somebody Is "Addicted" to a Chemical?	14	An Introduction to Alcohol: Man's Oldest Recreational Chemical	32
Definitions of Terms Used in This Text	15	Why Do People Consume Alcohol?	32
The Growth of New "Addictions"	16	A Brief History of Alcohol	33
What Do We <i>Really</i> Know about Substance Use Disorders?	16	Alcohol in the Modern World	34
The State of the Art: Unanswered Questions, Uncertain Answers	17	How Alcohol Is Produced	35
Chapter Summary	17	A Working Definition of Rare or Social Drinking	35
CHAPTER 3		Scope of Alcohol Use in the United States Today	36
A Brief Introduction to the Science of Pharmacology	18	The Pharmacology of Ethyl Alcohol	36
A Basic Misconception	18	The Biotransformation of Alcohol	38
The Prime Effect and Side Effects of Chemicals	18	The Blood Alcohol Level	39
		Subjective Effects of Alcohol on the Individual at Normal Doses in the Social Drinker	40
		Medical Complications of Alcohol Use for the Social Drinker	40
		Chapter Summary	44

CHAPTER 5	
The Effects of Alcohol Abuse and Addiction	45
A Working Definition of the Alcohol Use Disorders	45
Scope of the Problem	46
Who is the Typical Person with an Alcohol Use Disorder?	47
Alcohol Dependence, Tolerance, and "Craving": Signposts of Alcohol Use Disorders	48
Complications of Chronic Alcohol Use	49
The Alcohol Withdrawal Syndrome	60
The Benefits of Moderate Drinking	63
Chapter Summary	63
CHAPTER 6	
Abuse of and Addiction to Barbiturates and Barbiturate-Like Compounds	64
Early Medical Treatment of Anxiety and Insomnia	64
History and Current Medical Uses of Barbiturates	66
Pharmacology of the Barbiturates	67
Subjective Effects of Barbiturates at Normal Dosage Levels	68
Complications of Barbiturate Use at Normal Dosage Levels	68
Effects of Barbiturates at Above-Normal Dosage Levels	70
Neuroadaptation, Tolerance, and Physical Dependence on Barbiturates	70
The Barbiturate-Like Drugs	71
Chapter Summary	72
CHAPTER 7	
Abuse of and Addiction to the Benzodiazepines and Similar Agents	73
Medical Uses of the Benzodiazepines	73
The Pharmacology of the Benzodiazepines	74
Side Effects of the Benzodiazepines When Used at Normal Dosage Levels	76
Neuroadaptation to, Abuse of, and Addiction to, the Benzodiazepines	77
Complications of Benzodiazepine Use When Used as Prescribed	78
Long-Term Consequences of Chronic Benzodiazepine Use	80
Bupirone	82
Zolpidem	83
Zaleplon	84
Ramelteon	85
Rohypnol	85
Chapter Summary	86
CHAPTER 8	
Abuse of and Addiction to Central Nervous System Stimulants	87
I. CNS Stimulants as Used in Medical Practice	88
II. CNS Stimulant Abuse	96
Chapter Summary	106
CHAPTER 9	
Cocaine Abuse and Dependence	107
A Brief History of Cocaine	107
Current Medical Uses of Cocaine	109
Scope of the Problem of the Cocaine Use Disorders	110
Pharmacology of Cocaine	110
How Illicit Cocaine Is Produced	112
Methods of Cocaine Abuse	112
Subjective Effects of Abused Cocaine	114
Complications of Cocaine Abuse/Addiction	114
Chapter Summary	119
CHAPTER 10	
Marijuana Abuse and Addiction	121
A History of Marijuana Use/Abuse	122
A Medico-Legal Conundrum	122
A Question of Potency	124
A Technical Point	124
Scope of the Problem	124
The Pharmacology of Marijuana	125
Methods of Marijuana Abuse	128
Subjective Effects of Marijuana Abuse	128
Adverse Effects of Marijuana Abuse	129
Consequences of Chronic Marijuana Abuse	131
Chapter Summary	135
CHAPTER 11	
Opioid Use, Abuse, and Addiction	136
A Short History of the Natural and Synthetic Opioids	137
I. The Medical Applications of Narcotic Analgesics	138
II. Opiates As Drugs of Abuse	152
Chapter Summary	162

CHAPTER 12**Abuse of and Addiction to Hallucinogens 163**

A Short History of Hallucinogens 164

Scope of the Problem 165

Pharmacology of the Hallucinogens 166

Methods of Abuse 166

The Pharmacology of LSD 167

The Subjective Effects of LSD 168

Phencyclidine (PCP) 170

Scope of Phencyclidine Abuse 170

Methods of PCP Administration 171

Subjective Experience of PCP 171

The Pharmacology of PCP 171

Complications of PCP Abuse 172

ECSTASY (MDMA) 173

Pharmacology of MDMA 174

Subjective and Objective Effects of MDMA Abuse 175

Complications of MDMA Abuse 176

Salvia Divinorum 179

Chapter Summary 180

CHAPTER 13**Abuse of and Addiction to Inhalants
and Aerosols 181**

A Brief History of Inhalant Abuse 181

The Pharmacology of the Inhalants 182

Scope of the Problem of Inhalant Abuse 183

Methods of Inhalant Abuse 184

Subjective Effects of Inhalants 185

Complications Induced by Inhalant Abuse 185

Anesthetic Misuse 186

The Abuse of Nitrites 187

Chapter Summary 188

CHAPTER 14**The Underrecognized Problem of Steroid Abuse
and Addiction 189**

An Introduction to the Anabolic-Androgenic Steroids 190

Medical Uses of Anabolic Steroids 190

Why Steroids Are Abused 190

The Legal Status of Anabolic Steroids 191

Scope of the Problem of Steroid Abuse 191

Pharmacology of Anabolic-Androgenic Steroids 192

Sources and Methods of Steroid Abuse 192

The Unknown Hazards of Steroid Abuse 193

Known Adverse Effects of Anabolic Steroids When
Abused 194

Are Anabolic Steroids Addictive? 196

Chapter Summary 196

CHAPTER 15**Over-the-Counter Analgesics: Unexpected Agents
of Abuse 198**

A Short History of the OTC Analgesics 198

Medical Uses of the OTC Analgesics 199

Normal Dosage Levels of the OTC Analgesics 201

Pharmacology of OTC Analgesics 202

Complications Caused by OTC Analgesic Use 204

OTC Analgesic Overdoses 207

Chapter Summary 209

CHAPTER 16**Tobacco Products and Nicotine Addiction 210**

History of Tobacco Use in the United States 211

Scope of the Problem of Tobacco Use 211

The Pharmacology of Cigarette Smoking 212

The Effects of Nicotine on the Smoker's Body 216

Complications of the Chronic Use of Tobacco
Products 217

Secondhand Smoke 221

Smoking Cessation 223

Chapter Summary 225

CHAPTER 17**Chemicals and the Neonate 226**

Scope of the Problem for Women 226

Scope of the Problem for the Infant 227

Alcohol 228

Abuse and Addiction to Amphetamines and Amphetamine-
Like Compounds During Pregnancy 230Barbiturate and Barbiturate-Like Drug Abuse During
Pregnancy 231

Benzodiazepine Use During Pregnancy 232

Cigarette Smoking During Pregnancy 232

Cocaine Abuse During Pregnancy 233

Hallucinogen Abuse During Pregnancy 235

Inhalant Abuse During Pregnancy 236

Marijuana Use During Pregnancy 236

Narcotic Analgesic Abuse During Pregnancy 237

Over-The-Counter Analgesic Use During Pregnancy 239

Chapter Summary 240

CHAPTER 18

Gender and Substance Use Disorders 241

Gender and Addiction: The Lessons of History 241

Does Gender Affect the Rehabilitation Process? 243

Differing Effects of Common Drugs of Abuse
on Women 245

Alcohol Use Disorders in Women 246

Amphetamine Use Disorders in Women 247

Cocaine Use Disorders in Women 248

Hallucinogen Abuse in Women 249

Marijuana Use Disorders in Women 249

Narcotics Abuse and Women 250

Nicotine Use Disorders in Women 251

Other Compounds 252

Chapter Summary 252

CHAPTER 19

Hidden Faces of Substance Use Disorders 254

Substance Use Disorders and the Homeless 254

SUDs and the Elderly 255

Homosexuality and SUDs 258

Substance Abuse and the Disabled 259

Ethnic Minorities and SUDs 260

Chapter Summary 263

CHAPTER 20

**Substance Use and Abuse by Children and
Adolescents** 265

The Problem of Substance Abuse in Childhood
and Adolescence 266

Scope of the Problem of Substance Abuse in Childhood
and Adolescence 267

Why Worry about SUDs in Childhood and
Adolescence? 269

Tobacco Abuse by Children and Adolescents 272

Why Do Children and Adolescents Abuse Chemicals? 272

Substance Abuse: How Much and When Does It Become
Too Much? 277

Screening/Assessment Tools 278

Adolescent Rehabilitation Programs 279

Possible Diagnostic Criteria for Childhood and
Adolescent SUDs 283

Screening Instruments 284

Consequences of Child/Adolescent Substance Abuse 284

Substance Abuse Rehabilitation for Children or
Adolescents SUDs 285

Chapter Summary 287

CHAPTER 21

Substance Use Disorders in College Students . . . 288

A Special Environment 288

Scope of the Problem 290

If It Is Statistically Normal, Why Worry About College
Substance Abuse? 292

Consequences of Substance Use Disorders in the College
Age Population 293

Chapter Summary 296

CHAPTER 22

Codependency and Enabling 297

Enabling 297

Codependency 298

Reactions to the Concept of Codependency 303

Chapter Summary 305

CHAPTER 23

Addiction and the Family 307

Scope of the Problem 307

Addiction and the Family Unit 307

Interventions 311

The Adult Children of Alcoholics (ACOA) Movement 312

Chapter Summary 314

CHAPTER 24

**The Dual-Diagnosis Client: Substance Use
Disorders and Mental Illness** 316

Definitions 317

Theoretical Models 317

Dual-Diagnosis Clients: A Diagnostic Challenge 317

Why Worry about Dual-Diagnosis Clients? 318

Scope of the Problem 319

Psychopathology and Drug of Choice 320

Problems in Working with the Dual Diagnosis Client 328

Treatment Approaches with Dual-Diagnosis Clients 330

Chapter Summary 332

CHAPTER 25

**The Medical Model of Substance
Use Disorders** 333

Introduction to the Medical Model 333

Applications of the Medical Model of the Addictions: 338

Reaction against the Disease Model of
the Addictions 338

Challenges to the Medical Model of the Addictions 341

Chapter Summary 344

CHAPTER 26

The Psychosocial Models of Substance Use Disorders 345

A Matter of Perspective 345

Multiple Models 347

The Personality Predisposition Theories of Substance Use Disorders 347

Substance Use Disorders and the Use of Psychological Defenses 349

The Final Common Pathway Theory of the Substance Use Disorders 350

Chapter Summary 352

CHAPTER 27

The Substance Use Disorders As a Disease of the Human Spirit. 353

How the Soul Was Lost 354

The Ghost in the Machine 356

The Pain of Life 357

Diseases of the Mind/Diseases of the Spirit: The Mind-Body Question 357

The Growth of Addictions: The Circle Narrows 358

The Circle of Addiction: Priorities 358

Some of the Games of Addiction 358

Honesty: A Building Stone of Recovery 360

False Pride 361

The Role of Defense Mechanisms in the Spiritual Model 362

CHAPTER 28

The Assessment of Suspected Substance Use Disorders 363

The Theory Behind Substance Use Assessments 364

Screening 364

Assessment 367

The Assessment Format 370

The Assessor and Data Privacy 373

Diagnostic Rules 374

Other Sources of Information: Medical Test Data 375

Diagnosis: The Outcome of the Assessment Process 375

Chapter Summary 378

CHAPTER 29

Intervention 379

A Definition of Intervention 380

A Brief History of Intervention 380

Characteristics of the Intervention Process 381

The Mechanics of Intervention 381

The Ethics of Intervention 383

Some Common Forms of Intervention 383

Intervention by the Legal System 384

Other Forms of Intervention 386

Reactions Against the Concept of Intervention 387

Chapter Summary 387

CHAPTER 30

Treatment Settings 388

An Introduction to Outpatient Treatment 388

Introduction to Residential Treatment Programs 391

Is There a Legitimate Need for Inpatient Treatment? 394

Aftercare Programs 394

Chapter Summary 396

CHAPTER 31

The Treatment of Substance Use Disorders 397

Characteristics of the Substance Abuse Rehabilitation Professional 398

The Minnesota Model of Substance Abuse Treatment 399

Other Treatment Formats for Substance Use Disorders 401

The Treatment Plan 406

Aftercare Programs 407

Chapter Summary 407

CHAPTER 32

The Process of Treatment. 408

The Decision to Seek Treatment 408

Methods of Treatment 408

The Stages of Recovery 409

Specific Points to Address in Substance Abuse Rehabilitation 415

Chapter Summary 418

CHAPTER 33

Pharmacological Interventions for Substance Use Disorders 419

The Theory behind Pharmacotherapy of SUDs 419

Pharmacological Treatment of Alcohol Use Disorders 420

Pharmacological Treatment of Amphetamine Use Disorders 425

Pharmacological Interventions for Cocaine Use Disorders 426

Pharmacological Treatment of Inhalant Use Disorders 427

Pharmacological Treatment of Marijuana Use Disorders 427

Pharmacological Treatment of Narcotic Use Disorders 427

Pharmacological Treatment of the Tobacco Use Disorders 434

Chapter Summary 438

CHAPTER 34

Relapse and Other Problems Frequently Encountered in Substance Abuse Rehabilitation 439

Limit Testing by Clients 439

The Counselor and Treatment “Secrets” 439

Treatment Noncompliance 440

Lapse and Relapse 441

Acute Injury 446

Chronic Pain 447

Early Recovery and Sexual Activity 449

“Cravings” and “Urges” 449

The “Using” Dream 450

Toxicology Testing 451

Insurance Company Reimbursement Policies 458

Psycho-Educational Intervention Programs 459

Chapter Summary 460

CHAPTER 35

Support Groups to Promote and Sustain Recovery 461

The History of Alcoholics Anonymous 462

Elements of AA 462

The Relationship Between Alcoholics Anonymous and Religion 463

One “A” Is for Anonymous 465

Alcoholics Anonymous and Outside Organizations 465

The Primary Purpose of Alcoholics Anonymous 465

Outcome Studies: The Effectiveness of Alcoholics Anonymous 466

Narcotics Anonymous 468

Al-Anon and Alateen 469

Support Groups Other Than 12-Step Groups 469

Challenges to the Traditional 12-Step Movement 471

Chapter Summary 473

CHAPTER 36

Substance Use Disorders and Infectious Disease 474

Why Is Infectious Disease Such a Common Complication for People with an SUD? 475

Assorted Bacterial Infections Seen in Intravenous Drug Abusers 475

The Pneumonias 476

Acquired Immune Deficiency Syndrome (AIDS) 477

Tuberculosis 483

Viral Hepatitis 485

Chapter Summary 489

CHAPTER 37

The Relationship Between Drugs and Crime 490

Criminal Activity and Drug Abuse: Partners in a Dance? 490

Drug Use and Violence: The Unseen Connection 492

Adulterants 493

“Designer” Drugs 495

Chapter Summary 502

CHAPTER 38

The Debate Over Legalization 503

The “War” on Drugs: An Ongoing National Disaster 504

The Debate Over Medicalization of Marijuana 513

Legalization 513

Chapter Summary 514

Appendix One Sample Assessment: Alcohol Abuse Situation 515

Appendix Two The “Jellinek” Chart for Alcoholism 517

Appendix Three Classes of Antiviral Drugs Currently in Use to Treat HIV Infection 518

Appendix Four Drug Classification Schedules 519

Appendix Five The Twelve Steps of Alcoholics Anonymous 520

Glossary 521

References 531

Index 607