Drugs Addiction And The Brain

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The Selfish Brain
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Evaluating the Brain Disease Model of Addiction
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Cognitive, Clinical, and Neural Aspects of Drug Addiction
Brain and Cognition for Addiction Medicine: From Prevention to Recovery
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Addiction and Brain Damage
Drugs and Your Brain
The Science of Addiction: From Neurobiology to Treatment
Drugs, the Brain, and Behavior
Behavioral Neuroscience of Drug Addiction
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Memory Systems of the Addicted Brain: The Underestimated Role of Drug-Induced
Cognitive Biases in Addiction and Its Treatment
Hijacking the Brain
Drugs and the Future
Focus on Drugs and the Brain
Neural Mechanisms of Addiction
Blaming the Brain
Drugs, the Brain, and Behavior

DENNIS MAXIMUS

Hijacked Brains St. Martin's Press
Drug addiction is a chronically relapsing mental illness involving severe motivational disturbances and loss of behavioral control leading to personal dev- tation. The disorder af?icts millions of people, often co-occurring with other mental illnesses with enormous social and economic costs to society. Several decades of research have established that drugs of abuse hijack the brain’s natural reward substrates, and that chronic drug use causes aberrant alterations in these rewa- processing systems. Such aberrations may be demonstrated at the cellular, neu- transmitter, and regional levels of information processing using either animal models or neuroimaging in humans following chronic drug exposure. Behaviorally, these neural aberrations manifest as exaggerated, altered or dysfunctional expr- sion of learned behavioral responses related to the pursuit of drug rewards, or to environmental factors that precipitate craving and relapse during periods of drug withdrawal. Current research efforts are aimed at understanding the associative and causal relationships between these neurobiological and behavioral events, such that treatment options will ultimately employ therapeutic amelioration of neural de?cits and restoration of normal brain processing to promote efforts to abstain from further drug use. The Behavioral Neuroscience of Drug Addiction, part of the Springer series on Current Topics in Behavioral Neurosciences, contains scholarly reviews by noted experts on multiple topics from both basic and clinical neuroscience ?elds.
Pathways of Addiction Routledge
Explore the brain and discover the clinical and pharmacological issues surrounding drug abuse and dependence. The authors, research scientists with years of experience in alcohol and drug studies, provide definitions, historic discoveries about the nervous system, and original, eye-catching illustrations to discuss the brain/behavior relationship, basic neuroanatomy, neurophysiology, and the mechanistic actions of mood-altering drugs. You will learn about: * how psychoactive drugs affect cognition, behavior, and emotion * the brain/behavior relationship * the specific effects of major addictive and psychoactive drug groups * new definitions and thinking about abuse and dependence * the medical and forensic consequences of drugs use Drugs, the Brain, and Behavior uses a balance of instruction, illustrations, and tables and formulas that will give you a broad, lasting introduction to this intriguing subject. Whether you're a nurse, chemical dependency counselor, psychologist, or clinician, this book will be a quick reference guide long after the first reading.
The Effects of Drug Abuse on the Human Nervous System Hazelden Publishing & Educational Services
In the past two decades, there have been astonishing advances in our understanding of the neurobiological basis and nature of drug addiction. We now know the initial molecular sites of action, at identified receptors, of

virtually all of the major drugs of abuse including cocaine, heroin, and amphetamine, as well as legal drugs such as nicotine and alcohol. We also understand the main components of a 'reward system' and its connections to major brain regions involved in motivation and emotion, such as the amygdala, hippocampus, and prefrontal cortex. The Neurobiology of Addiction describes the latest advances in our understanding of addiction. It brings together world class researchers to debate the nature and extent of addiction, as well as its causes, consequences, and treatment. The focus of the book is on the brain processes underlying addiction, in terms of neural systems, neurochemical basis, and molecular changes. Several types of addiction are discussed ranging from illicit drugs - cocaine, amphetamine, and heroin to legal drugs - alcohol and nicotine. In addition, it explores increasingly common behavioural addictions such as gambling and obesity. Included are chapters on vulnerability to addiction, genetic factors, opponent motivational processes, animal models, relapse, cognitive deficits associated with drug abuse, new pharmacological treatments, and current controversies concerning different neuropsychological theories of addiction. Throughout, it reports on cutting edge research using brain imaging, and state of the art molecular methodology. The book will make fascinating reading for students and teachers in the field of neuroscience, pharmacology and psychology, as well as experts in the field.

The Wiley Handbook on the Cognitive Neuroscience of Addiction Sourcebooks, Inc.

Drug use and abuse continues to thrive in contemporary society worldwide and the instance and damage caused by addiction increases along with availability. The Effects of Drug Abuse on the Human Nervous System presents objective, state-of-the-art information on the impact of drug abuse on the human nervous system, with each chapter offering a specific focus on nicotine, alcohol, marijuana, cocaine, methamphetamine, MDMA, sedative-hypnotics, and designer drugs. Other chapters provide a context for drug use, with overviews of use and consequences, epidemiology and risk factors, genetics of use and treatment success, and strategies to screen populations and provide appropriate interventions. The book offers meaningful, relevant and timely information for scientists, health-care professionals and treatment providers. A comprehensive reference on the effects of drug addiction on the human nervous system Focuses on core drug addiction issues from nicotine, cocaine, methamphetamine, alcohol, and other commonly abused drugs Includes foundational science chapters on the biology of addiction Details challenges in diagnosis and treatment options

Unbroken Brain John Wiley & Sons

Neurobiology of Addiction is conceived as a current survey and synthesis of the most important findings in our understanding of the neurobiological mechanisms of addiction over the past 50 years. The book includes a scholarly introduction,

thorough descriptions of animal models of addiction, and separate chapters on the neurobiological mechanisms of addiction for psychostimulants, opioids, alcohol, nicotine and cannabinoids. Key information is provided about the history, sources, and pharmacokinetics and psychopathology of addiction of each drug class, as well as the behavioral and neurobiological mechanism of action for each drug class at the molecular, cellular and neurocircuitry level of analysis. A chapter on neuroimaging and drug addiction provides a synthesis of exciting new data from neuroimaging in human addicts — a unique perspective unavailable from animal studies. The final chapters explore theories of addiction at the neurobiological and neuroadaptational level both from a historical and integrative perspective. The book incorporates diverse finding with an emphasis on integration and synthesis rather than discrepancies or differences in the literature. · Presents a unique perspective on addiction that emphasizes molecular, cellular and neurocircuitry changes in the transition to addiction · Synthesizes diverse findings on the neurobiology of addiction to provide a heuristic framework for future work · Features extensive documentation through numerous original figures and tables that that will be useful for understanding and teaching

The Brain Harvard University Press

This book provides a scientific explanation of drug abuse and addiction for the general public. It clarifies the meaning of concepts such as intoxication, physical dependence, and addiction, and describes the changes in the brain that underlie these states. Indeed, this volume is unique because it presents a comprehensive picture of what actually happens to people and their brains when they chronically self-administer opiates, stimulants or alcohol. Complex mechanisms of drug action in the brain are made simple and comprehensible to the layman through use of informative analogies and salient graphics. Accounts of the effects of drug use and abuse on normal people create meaningful, easy-to-relate-to examples from everyday life.

Never Enough Elsevier

Drug Addiction Mechanisms in the Brain explores the fascinating world of drug substances and their effects on the brain. This book provides a comprehensive overview of the ten major substances that contribute to drug addiction Information about each substance is presented in a specific chapter, shedding light on their biochemical mechanisms and physiological effects. From the stimulating effects of cocaine to the sedative properties of heroin, and the hallucinogenic experiences induced by LSD, the book takes the reader through the intricate pathways of addiction. Other substances covered in the book include alcohol, nicotine, MDMA, METH, morphine, ketamine, and fentanyl. Readers will gain an understanding about neurochemical alterations in the brain Anyone looking for interesting knowledge about the addictive nature of common drugs and their complex interplay with the brain will find this

book informative.
The Neurobiology of Addiction Academic Press
Drug abuse persists as one of the most costly and contentious problems on the nation's agenda. Pathways of Addiction meets the need for a clear and thoughtful national research agenda that will yield the greatest benefit from today's limited resources. The committee makes its recommendations within the public health framework and incorporates diverse fields of inquiry and a range of policy positions. It examines both the demand and supply aspects of drug abuse. Pathways of Addiction offers a fact-filled, highly readable examination of drug abuse issues in the United States, describing findings and outlining research needs in the areas of behavioral and neurobiological foundations of drug abuse. The book covers the epidemiology and etiology of drug abuse and discusses several of its most troubling health and social consequences, including HIV, violence, and harm to children. Pathways of Addiction looks at the efficacy of different prevention interventions and the many advances that have been made in treatment research in the past 20 years. The book also examines drug treatment in the criminal justice setting and the effectiveness of drug treatment under managed care. The committee advocates systematic study of the laws by which the nation attempts to control drug use and identifies the research questions most germane to public policy. Pathways of Addiction provides a strategic outline for wise investment of the nation's research resources in drug abuse. This comprehensive and accessible volume will have widespread relevanceâ€"to policymakers, researchers, research administrators, foundation decisionmakers, healthcare professionals, faculty and students, and concerned individuals.
Brain Reward & Stress Systems in Addiction PublicAffairs
Neural Mechanisms of Addiction is the only book available that synthesizes the latest research in the field into a single, accessible resource covering all aspects of how addiction develops and persists in the brain. The book summarizes our most recent understanding on the neural mechanisms underlying addiction. It also examines numerous biobehavioral aspects of addiction disorders, such as reinforcement learning, reward, cognitive dysfunction, stress, and sleep and circadian rhythms that are not covered in any other publication. Readers with find the most up-to-date information on which to build a foundation for their future research in this expanding field. Combining chapters from leading researchers and thought leaders, this book is an indispensable guide for students and investigators engaged in addiction research. Transcends multiple neural, neurochemical and behavioral domains Summarizes advances in the field of addiction research since the advent of optogenetics Discusses the most current, leading theories of addiction, including molecular mechanisms and dopamine mechanisms
The Addicted Brain Anchor
Discusses how the brain functions, the effects of drugs on the brain, how drug use can lead to addiction, and where to get help.

Drugs, Addiction, and the Brain Academic Press
An updated and expanded edition on the roles that brain function and genetics play in addiction. Over the past 10 years, neurobiologic and genetic research has provided an increased understanding of what causes drug addiction in the brain's reward pathway. Knowing this leads to a better understanding of how it may be treated and even reversed in those who successfully overcome the disease. This is especially true with addiction's possible precursors of mild to moderate substance use disorders. These latter disorders can usually be treated more easily by less intensive models of "treatment" that do not require actual brain chemistry re-regulation over time. In this new edition, there are updated scientific references to support addiction as a medical brain disease, using the prevailing neurobiology, genetics, and psychological scientific literature. We now have more psychosocial and medicinal methods for reversing abnormal brain chemistry during drug addiction. There are also more effective intervention, counseling, and motivating methods (SBIRT, motivational interviewing) for overcoming resistance to treatment and resistance to change than were able to be discussed when the first edition was published over a decade ago. Here, readers will find a fully-updated glossary of terms, additional abbreviations, and updated appendices. These will aid in clarifying the somewhat lengthy and science-based upgrades in our knowledge of neuroscience and genetics research that are so critical in understanding why addiction is such a serious and tough-to-treat disease. Utilizing the same easy-to-read language that was a hallmark of the earlier edition, Erickson keeps the science understandable yet comprehensive—appropriate for health professionals as well as lay readers who need and want this critical information.

Drug Addiction Mechanisms in the Brain Elsevier
Contains a supplemental science program designed to introduce students to basic concepts in neurobiology with emphasis on the physiology of substance abuse and its effect on brain function.

Should Addiction to Drugs be Labeled as Brain Disease? Dartmouth College Press
Drug addiction as a brain disease is this book's theme. In clear scientific terms it describes the nature of chemical addiction and addictive behaviour and the muddied effort to develop effective drug control policies and laws.

Memoirs of an Addicted Brain Doubleday Canada
This volume provides a thorough and up-to-date synthesis of the expansive and highly influential literature from the last 30 years by bringing together contributions from leading authorities in the field, with emphasis placed on the most commonly investigated drugs of abuse. Emphasises the most commonly investigated drugs of abuse, including alcohol, cocaine, nicotine, and opiates Brings together the work of the leading authorities in all major areas of the field Provides novel coverage of cutting-edge methods for using cognitive neuroscience to advance the treatment of

addiction, including real-time neurofeedback and brain stimulation methods Includes new material on emerging themes and future directions in the use of cognitive neuroscience to advance addiction science
Healing the Addicted Brain PublicAffairs
Drugs and the Future presents 13 reviews collected to present the new advances in all areas of addiction research, including knowledge gained from mapping the human genome, the improved understanding of brain pathways and functions that are stimulated by addictive drugs, experimental and clinical psychology approaches to addiction and treatment, as well as both ethical considerations and social policy. The book also includes chapters on the history of addictive substances and some personal narratives of addiction. Introduced by Sir David King, Science Advisory to the UK Government and head of the Office of Science and Technology, and Nora Volkow, director of the National Institute on Drug Abuse in the USA, the book uniquely covers the full range of disciplines which can provide insight into the future of addiction, from genetics to the humanities. Written for a scientific audience, it is also applicable to non-specialists as well. Provides an unique overview of what we know about addiction, and how scientific knowledge can and should be applied in the societal, ethical, and political context Applies the state-of-the-art research in fields such as Genomics, Neuroscience, Pharmacology, Social Policy and Ethics to addiction research Includes a preface by Sir David King, Science Advisory to the UK Government and head of the Office of Science and Technology, and in introduction by Nora Volkow, director of the National Institute on Drug Abuse in the USA
Addiction Routledge
Cognitive, Clinical, and Neural Aspects of Drug Addiction focuses on the theories that cause drug addiction, including avoidance behavior, self-medication, reward sensitization, behavioral inhibition and impulsivity. Dr. Moustafa takes this book one-step further by reviewing the psychological causes of relapse, including the role stress, anxiety and depression play. By examining both the causes of drug addiction and relapse, this book will help clinicians create individualized treatment options for their patients suffering from drug addiction. Understanding the development of individual drug addictions are often difficult to understand and, more often, difficult to treat. The most successful treatments begin with studying why individuals become addicted to drugs and how to change their thinking and behavior.
Drugs, Brains, and Behavior Children's Press(CT)
Drugs, Addiction, and the Brain explores the molecular, cellular, and neurocircuitry systems in the brain that are responsible for drug addiction. Common neurobiological elements are emphasized that provide novel insights into how the brain mediates the acute rewarding effects of drugs of abuse and how it changes during the transition from initial drug use to compulsive drug use and addiction. The book provides a detailed overview of the pathophysiology of the disease. The information provided will be useful for neuroscientists in the field of addiction, drug abuse

treatment providers, and undergraduate and postgraduate students who are interested in learning the diverse effects of drugs of abuse on the brain. Full-color circuitry diagrams of brain regions implicated in each stage of the addiction cycle Actual data figures from original sources illustrating key concepts and findings Introduction to basic neuropharmacology terms and concepts Introduction to numerous animal models used to study diverse aspects of drug use. Thorough review of extant work on the neurobiology of addiction

Memoirs of an Addicted Brain W. W. Norton & Company Research increasingly suggests that addiction has a genetic and neurobiological basis, but efforts to translate research into effective clinical treatments and social policy needs to be informed by careful ethical analyses of the personal and social implications. Scientists and policy makers alike must consider possible unintended negative consequences of neuroscience research so that the promise of reducing the burden and incidence of addiction can be fully realized and new advances translated into clinically meaningful and effective treatments. This volume brings together leading addiction researchers and practitioners with neuroethicists and social scientists to specifically discuss the ethical, philosophical, legal and social implications of neuroscience research of addiction, as well as its translation into effective, economical and appropriate policy and treatments. Chapters explore the history of ideas about addiction, the neuroscience of drug use and addiction, prevention and treatment of addiction, the moral implications of addiction neuroscience, legal issues and human rights, research ethics, and public policy. Features outstanding and truly international scholarship, with chapters written by leading experts in neuroscience, addiction medicine, psychology and more Informs psychologists of related research in neuroscience and vice versa, giving researchers easy one-stop access to knowledge outside their area of specialty

The Selfish Brain CRC Press The Selfish Brain explains how individuals and communities are affected by drugs such as alcohol, tobacco, marijuana, cocaine, and heroin, and how treatment can lead to whole healthy, lives. Why is the brain so vulnerable to the effects of alcohol and other drugs? How does addiction echo through families, cultures, and history? What is it that families and communities do to promote or prevent addiction?These are some of the questions that this thorough, thoughtful, and well-reasoned book answers--in clear, comprehensible terms. From the basics of brain chemistry to the workings of particular drugs such as alcohol, tobacco, marijuana, cocaine, and heroin, The Selfish Brain explains how individuals and communities become trapped in destructive habits--and how various treatments and approaches lead to recovery and whole, healthy lives.

Mastering the Addicted Brain Academic Press Explore the brain and discover the clinical and pharmacological issues surrounding drug abuse and dependence. The authors, research scientists with years of

experience in alcohol and drug studies, provide definitions, historic discoveries about the nervous system, and original, eye-catching illustrations to discuss the brain/behavior relationship, basic neuroanatomy, neurophysiology, and the mechanistic actions of mood-altering drugs. You will learn about: • how psychoactive drugs affect cognition, behavior, and emotion • the brain/behavior relationship • the specific effects of major addictive and psychoactive drug groups • new definitions and thinking about abuse and dependence • the medical and forensic consequences of drugs use Drugs, the Brain, and Behavior uses a balance of instruction, illustrations, and tables and formulas that will give you a broad, lasting introduction to this intriguing subject. Whether you're a nurse, chemical dependency counselor, psychologist, or clinician, this book will be a quick reference guide long after the first reading.