

Magic Bullet, Miracle Drug: The History of Antibiotic Therapy

Title:	The Antibiotic Paradox: How the Misuse of Antibiotics Destroys Their Curative Powers By Stuart B Levy M.D. ISBN: 9780738204406
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>The antibiotic era, barely 60 years old, is increasingly challenged by the continued emergence of drug-resistant organisms. The variables that currently predict the level of resistance in a community (or a hospital) are the misuse of antibiotics and the resultant selection of mutants, the spread of resistant strains as a result of poor infection control, and intrusion from the outside of strains already resistant to the drug. Without the pressure of antibiotics, however, the selection of strains in the community harboring the genes that code for resistance would not be so effective. No one has been more outspoken on this point than Stuart Levy, author of this encyclopedic account of the misuse of antibiotics. Ten years after the book's initial publication, the new edition is an accessible, fact-filled warning of the risks posed by the unwise use of the prize drugs -- antibiotics. Nowhere else are the history of antibiotic discovery and the mechanisms of microbial resistance so clearly presented for general readers. For those in medicine and related disciplines who are interested in the topic, this book is easy to read, a comfortable and logical presentation of the problem with sufficient notes and references for the serious student to pursue the topic by reading original publications beyond the book.</p>
Title:	The Killers Within: The Deadly Rise Of Drug-Resistant Bacteria By: Michael Shnayerson and Mark Plotkin ISBN: 978-0316735667
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>At first glance, Shnayerson, a Vanity Fair staff writer, and noted ethnobotanist Plotkin (Tales of a Shaman's Apprentice) seem an unlikely pair to be writing a book about antibiotic resistance. Yet the reader quickly becomes engrossed in their tale. The authors provide an extremely readable look at the overuse of antibiotics, the methods bacteria use to develop resistance, the role of antibiotics as animal growth promoters, and the outlook for antibiotics. Drawing on a vast number of interviews with key people in the field, Shnayerson and Plotkin have managed to demonstrate their concern over the future of antibiotics while keeping the scientific background manageable for lay readers. A brief, annotated bibliography and list of web sites adds to the work. An interesting complement to Gerald Grob's The Deadly Truth, which discusses the inevitability of disease, this work also offers readers a riveting update to the section on antibiotics in Laurie Garrett's The Coming Plague. Recommended for public and academic collections.</p>
Title:	The Demon in the Freezer By: Richard Preston ISBN: 978-0345466631
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Never mind Ebola, the hemorrhagic disease that was the main subject of Preston's 1994 #1 bestseller, The Hot Zone. What we really should be worrying about, explains Preston in this terrifying, cautionary new title, is smallpox, or variola. But wasn't that eradicated? many might ask, particularly older Americans who remember painful vaccinations and the resultant scars. Officially, yes, nods Preston, who devotes the first half of the book to the valorous attempt by an army of volunteers to wipe out the virus (an attempt initially sparked by '60s icon Ram</p>

	<p>Dass and his Indian guru) via strategic vaccination; in 1977 the last case of naturally occurring smallpox was documented in Somalia, and today the variola virus exists officially in only two storage depots, in Russia and at the Centers for Disease Control in Atlanta (in the freezer of the title). To believe that variola is not held elsewhere, however, is nonsense, argues Preston, who delves into the possibility that several nations, including Iraq and Russia, have recently worked or are currently working with smallpox as a biological weapon. The author devotes much space to the anthrax attacks of last fall, mostly to demonstrate how easily a devastating assault with smallpox could occur here. He includes an interview with Steven Hatfill, who has received much press coverage for the FBI's investigation of him regarding those attacks; his description of meeting Hatfill, hallmarked by a quick character sketch ("He was a vital, engaging man, with a sharp mind and a sense of humor.... He was heavy-set but looked fit, and he had dark blue eyes") is emblematic of what makes this New Yorker regular's writing so gripping. Preston humanizes his science reportage by focusing on individuals--scientists, patients, physicians, government figures. That, and a flair for teasing out without overstatement the drama in his inherently compelling topics, plus a prose style that's simple and forceful, make this book as exciting as the best thrillers, yet scarier by far, for Preston's pages deal with clear, present and very real dangers.</p>
Title:	<p>A Field Guide to Germs By: Wayne Biddle ISBN: 978-1400030514</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>From the title alone, you know it's going to be good. Biddle delves into anthrax and arboviruses, cholera and chlamydia, diphtheria, dengue, and dysentery, and on through the disease-ridden alphabet to Zika fever. Biddle explains in graphic detail the causes, symptoms and treatments for these germs, and it's all jolly good middle-of-the-night reading. You might become somewhat phobic if you read it from cover to cover, but no one will be more scintillating at parties.</p>
Title:	<p>Viruses, Plagues, and History: Past, Present and Future By: Michael B. A. Oldstone M.D. ISBN: 978-0195327311</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>The story of viruses and humanity is a story of fear and ignorance, of grief and heartbreak, and of great bravery and sacrifice. Michael Oldstone tells all these stories as he illuminates the history of the devastating diseases that have tormented humanity, focusing mostly on the most famous viruses. Oldstone begins with smallpox, polio, and measles. Nearly 300 million people were killed by smallpox in this century alone and the author presents a vivid account of the long campaign to eradicate this lethal killer. Oldstone then describes the fascinating viruses that have captured headlines in more recent years: Ebola, Hantavirus, mad cow disease (a frightening illness made worse by government mishandling and secrecy), and, of course, AIDS. And he tells us of the many scientists watching and waiting even now for the next great plague, monitoring influenza strains to see whether the deadly variant from 1918--a viral strain that killed over 20 million people in 1918-1919--will make a comeback. For this revised edition, Oldstone includes discussions of new viruses like SARS, bird flu, virally caused cancers, chronic wasting disease, and West Nile, and fully updates the original text with new findings on particular viruses.</p>

	<i>Viruses, Plagues, and History</i> paints a sweeping portrait of humanity's long-standing conflict with our unseen viral enemies. Oldstone's book is a vivid history of a fascinating field, and a highly reliable dispatch from an eminent researcher on the front line of this ongoing campaign.
Title:	Good Germs, Bad Germs: Health and Survival in a Bacterial World By Jessica Snyder Sachs ISBN: 0809016427
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	Science writer Sachs (<i>Corpse</i>) makes a strong case for a new paradigm for dealing with the microbial life that teems around and within us. Taking both evolutionary and ecological approaches, she explains why antibiotics work so well but are now losing their effectiveness. She notes that between agricultural antibiotic usage and needless prescriptions written for human use, antibiotic resistance has reached terrifying levels. A decade ago, resistant infections acquired in hospitals were killing an estimated eighty-eight thousand Americans each year... more than car accidents and homicides combined. Our attempts to destroy microorganisms regularly upset useful microbial communities, often leading to serious medical consequences. Sachs also presents evidence suggesting that an epidemiclike rise in autoimmune diseases and allergies may be attributable to our misguided frontal assault on the bacterial world. The solution proposed is to encourage the growth of healthy, displacement-resistant microbial ecological communities and promote research that disrupts microbial processes rather than simply attempting to kill the germs themselves. Despite the frightening death toll, Sachs's summary of promising new avenues of research offers hope.
Title:	Man and Microbes: Disease and Plagues in History and Modern Times By: Arno Karlen ISBN: 978-0684822709
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	Whereas many popular books on microbes focus on contemporary pathogens and emerging epidemics, Arno Karlen's <i>Man and Microbes</i> provides a historical look at the coevolution of humans and microorganisms. Karlen speculates that infections are integral to the process of life itself, that the mitochondria in every animal cell, for instance, are likely descendants of infectious agents. He then traces the development of man from primitive hunter-gatherer to urban dweller to world traveler, pointedly analyzing how socio-ecological changes have contributed to the changing incidence of disease. With amazing detail, Karlen describes the origins of historical plagues (smallpox, cholera, influenza, polio, and others) as well as the emergence of scourges such as hemorrhagic fever (Ebola and its cousins), Lyme disease, Legionnaires' disease, and even the deep mysteries of retroviruses such as HIV.
Title:	Killer Germs By: Barry Zimmerman and David Zimmerman ISBN: 978-0071409261
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	Everything readers ever wanted to know about deadly viruses, killer parasites, flesh-eating microbes, and other lifethreatening beasts but were afraid to ask: What disease, known as "the White Death" has killed 2 billion people, and counting? What fatal disease lurks undetected in air conditioners and shower heads, waiting to become airborne? How lethal is the Ebola virus, and will there ever be a cure for it? How do you catch flesh-eating bacteria? <i>Killer Germs</i> takes

	readers on a fascinating (sometimes horrifying) journey into the amazing world of viruses, bacteria, protozoa, fungi, and worms and explores the roles they have played in shaping the course of human history. From biblical plagues, to the AIDS crisis, to supergerms of the future, this updated and revised edition of the original covers the whole gamut of diseases that have threatened humanity since its origins. It also includes a new chapter on the history of bioterrorism and the deplorable role it has played and is likely to play in the phenomenal diversity of diseases.
Title:	Deadly Companions: How Microbes Shaped Our History By: Dorothy H. Crawford ISBN: 978-0199561445
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	Combining tales of devastating epidemics with accessible science and fascinating history, <i>Deadly Companions</i> reveals how closely microbes have evolved with us over the millennia, shaping human civilization through infection, disease, and deadly pandemic. Beginning with a dramatic account of the SARS pandemic at the start of the 21st century, Dorothy Crawford takes us back in time to follow the interlinked history of microbes and humanity, offering an up-to-date look at ancient plagues and epidemics, and identifying key changes in the way humans have lived--such as our move from hunter-gatherer to farmer to city-dweller--which made us ever more vulnerable to microbe attack. Showing that how we live our lives today--with increased crowding and air travel--puts us once again at risk, Crawford asks whether we might ever conquer microbes completely. Among the possible answers, one thing becomes clear: that for generations to come, our deadly companions will continue to influence our lives.
Title:	Beyond Antibiotics: Strategies for Living in a World of Emerging Infections and Antibiotic-Resistant Bacteria By: Michael a. Schmidt Ph.D ISBN: 978-1556437779
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	At a time when the numbers of emerging infections and antibiotic-resistant bacteria are rising sharply, the supply of new antibiotic drugs has been steadily decreasing. In addition, many health providers have failed to consider that our bodies are cloaked in a blanket of bacteria so pervasive that the bacterial cells outnumber our "human" cells by a factor of ten. In short, we are living in a microbe's world and cannot ignore the very real potential for untreatable serious infections. In this timely book, Dr. Michael Schmidt proposes we focus on strengthening ourselves by thinking of our bodies as a "human-microbe hybrid." This requires taking action to raise our defenses, while preserving the integrity of the microbial elements that live on and within us. Drawing on the latest research from several scientific fields, Schmidt presents a strategy of medicine that can be used to build and balance our system of immune defense and repair. He offers a set of general recommendations that can easily be used to tailor programs to individuals seeking to support health maintenance, prevent illness, fight active acute or chronic infections, and foster faster recovery from infections.
Title:	The Demon Under the Microscope: From Battlefield Hospitals to Nazi Labs, One Doctor's Heroic Search for the World's First Miracle Drug By: Thomas Hager ISBN: 978-1400082148

<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Modern bacteriology was born on the battlefields of WWI, where bacteria-rich trenches added to the toll of millions of soldiers killed. Not coincidentally, the search for anything that would significantly diminish the deadly power of disease largely occurred between the world wars, mostly in Germany. Gerhard Domagk and his colleagues at Bayer (a subsidiary of I.G. Farben) worked feverishly to identify which microscopic squiggles might render humankind forever safe from malaria and tuberculosis. The answer, discovered in 1932, turned out to be sulfa drugs, the precursors to modern antibiotics. Hager, a biographer of Linus Pauling, does a remarkable job of transforming material fit for a biology graduate seminar into highly entertaining reading. He knows that lay readers need plenty of personality and local color, and his story is rich with both. This yarn prefigures the modern rush for corporate pharma patents; it is testament to Hager's skill that the inherently unsexy process of finding the chemicals that might help conquer strep is as exciting as an account of the hunt for a Russian submarine.</p>
Title:	<p>Viruses vs. Superbugs: A Solution to the Antibiotics Crisis? By: Thomas Haxusler ISBN: 978-0230551930</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Once upon a time, before penicillin, medicine's perpetual battle with bacterial infection was waged with biological weapons. Phages--viruses that kill bacteria but are harmless to humans--were used to perform duties for which they seemed uniquely destined. The story of bacteriophage therapy, which began in the early twentieth century, is dramatic and frustrating. The drama lies in Swedish science editor Hausler's account of how the ideas of an arrogant rogue scientist, Felix d'Herelle, flew in the faces of his contemporaries and how he persevered to prove his hypotheses, only to see his discovery put on a back burner, at least in the West, when modern antibiotics burst upon the scene. That development would have been fine if it had meant a conclusion to struggle against the likes of strep and staph infections. The problem is, however, that greater and greater numbers of serious bacteria are becoming antibiotic resistant. With nearly 90,000 Americans dying each year because antibiotic treatments are no longer effective, something must be done. Hausler proposes renewed investigation into bacteriophage therapy but paints a dismal picture of its likelihood. It is, he says, effective and organic but unlikely to become a cash cow for pharmaceutical companies</p>
Title:	<p>The Sanford Guide to Antimicrobial Therapy 2011 (Guide to Antimicrobial Therapy) By: David Gilbert et al ISBN: 978-1930808652</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>No product information available</p>
Title:	<p>Mayo Clinic Antimicrobial Therapy: Quick Guide By: John Wilson and Lynn Estes ISBN: 978-1420085181</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Direct from infectious diseases experts at Mayo Clinic, this new pocket-sized guide to antimicrobial therapy provides an innovative format organized for the way you treat patients—simplified treatment recommendations for specific syndromes at</p>

	<p>the point of care. Special benefits include:</p> <ul style="list-style-type: none"> • An expertly designed point-of-care format—provides effortless access to therapy guidelines • Up-to-date content—with added references and Web site URLs to keep you current • Hundreds of antimicrobial drugs—ensure thorough coverage • Drug-dosing recommendations—provide quick treatment options and improve outcomes • Pediatric dosing guidelines—present a thorough one-stop resource option <p>Written in an easy-to-use format, the new <i>Mayo Clinic Antimicrobial Therapy Quick Guide</i> helps clinicians around the world improve their quick ID consults for positive patient outcomes.</p>
Title:	<p>Antibiotics: Actions, Origins, Resistance By: Christopher Walsh ISBN: 978-1555812546</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>This is the first comprehensive book on antibiotics since the 1981 classic by Gale et al. It focuses on the increased interest in antibiotics due to emerging bacterial diseases and resistance. It shows how antibiotics work on targets; gives new insights into antibiotic modification and design; and reviews strategies for finding novel antibiotics</p>
Title:	<p>Overkill: Repairing the Damage Caused by Our Unhealthy Obsession with Germs, Antibiotics, and Antibacterial Products By Debra Fulghum Bruce and Kimberly Thompson ISBN: 978-1579545345</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Popping antibiotics to quiet every ear infection has been likened to dropping nuclear bombs to quiet every enemy. Simply put, it's overkill. Risk assessment expert Kimberly M. Thompson, Sc.D., beseeches individuals to become germ savvy in order to prevent new, more resistant bacteria from reaching epidemic proportions. Busting myths and highlighting facts about food safety, cleaning products, medicines, and immune systems, Thompson plows through 31 common illnesses "that are treated--and mistreated--with antibiotics." Each segment briefly describes the ailment and its causes, signs, and symptoms. Thompson also provides specific preventive measures and treatment options for each illness, based on the reader's "RQ," or Risk Quotient (determined via an initial survey that assesses one's personal health risk profile). Those who score a low RQ for bacterial infection receive gentle prescriptions: avoid, hydrate, wash, supplement, immunize. Folks in the medium- to high-risk categories will find information about herbal remedies, helpful foods, or salves; they might also find direct orders to stop smoking, spend more time exercising, or "work with your doctor." A useful primer on food-borne and household pathogens, recipes for natural cleaners, and special attention to high-risk populations (including children and immune-compromised people) round out this vital home resource.</p>
Title:	<p>Infectious Disease: A Scientific American Reader Edited by Scientific American ISBN: 978-0226742649</p>

<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>The international public health scare that resulted last year when a man infected with multidrug-resistant tuberculosis flew overseas from the United States and back illustrates both the fear and the potential impact of highly infectious diseases in a global age. At a time when scientists warn of the potential for an influenza epidemic to rival the deadly outbreak of 1919 and newspapers feature alarming headlines about incidences of mad cow disease, infectious disease will be a critical area of concern and scientific study in the twenty-first century. <i>Infectious Disease</i> collects thirty of the most exciting, innovative, and significant articles on communicable illness published in the pages of <i>Scientific American</i> magazine since 1993. With sections devoted to viral infections, infectious disease, the immune system, and global management and treatment issues, <i>Infectious Disease</i> provides general readers and students with an excellent overview of recent research in the field. Roger I. Glass discusses a potential vaccine for the rotavirus—a leading cause of severe childhood diarrhea world wide and frequent killer of young children in developing nations. Jeffery K. Taubenberger and colleagues investigate the virulent strain of influenza that killed up to 40 million people in 1919 to suggest treatments and recommend preventative measures. And Paul R. Epstein looks into whether global warming could be harmful to our health, untangling research that suggests that many diseases will flourish as Earth's atmosphere heats up. The prominence of disease in the ecology and evolution of human society has spurred investment in research and technology development, and, as a consequence, the topic is much discussed in the general and scientific media. <i>Infectious Disease</i> is the essential sourcebook for anyone looking for the solid science and compelling narrative behind the stories that make headlines.</p>
Title:	<p>The Woman with a Worm in Her Head: And Other True Stories of Infectious Disease By: Pamela Nagami M.D. and F. Gonzalez-Crussi ISBN: 978-0312306014</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>As a "bugs and drugs doc," Pamela Nagami has seen some of the worst diseases known to humankind—flesh-eating strep, parasitic worms that zigzag through the brain, and AIDS, the biggest infectious disease emergency around. Some of the infections profiled in <i>Maneater</i> can smolder for years before rearing up and killing their unsuspecting human host; others seem innocuous, like chickenpox, which can nevertheless devastate a body. Others, like malaria, travel from other countries, but equally dangerous microbes live in American soil, just waiting to be disturbed by a backhoe or a runner and inhaled in a single breath. These indelible dispatches from the frontlines of infectious disease reveal the danger lurking in everything from salads to the air we breathe, the heroic actions of doctors faced with these bizarre cases on a daily basis, and the limits of medical miracles. Like a detective unraveling a crime scene, Nagami shows us how the most innocuous actions can hurt us, or save our lives.</p>
Title:	<p>The A to Z of Infectious Diseases (Concise Encyclopedia) By Carol A. Turkington and Bonnie Lee Ashby ISBN: 978-0816063987</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Medical writer Turkington and physician Ashby have produced "a guide and reference to a wide range of infectious diseases and their causes." Their dictionary-type guide lists over 600 entries about the diseases, what causes them, symptoms,</p>

	<p>treatment, and prevention. Six appendixes identify drugs used in treating infectious diseases, tips for disinfecting the home, web sites, hotlines, journals, and health organizations. An extensive bibliography provides additional sources. For academic and medical libraries, Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases (Churchill, 1995. 4th ed.) is the major textbook on this topic. Designed for lay readers, this typical Facts on File reference is written in a very readable style and includes many cross references.</p>
Title:	<p>Evolution of Infectious Disease By: Paul Ewald ISBN: 978-0195111392</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Findings from the field of evolutionary biology are yielding dramatic insights for health scientists, especially those involved in the fight against infectious diseases. This book is the first in-depth presentation of these insights. In detailing why the pathogens that cause malaria, smallpox, tuberculosis, and AIDS have their special kinds of deadlines, the book shows how efforts to control virtually all diseases would benefit from a more thorough application of evolutionary principles. When viewed from a Darwinian perspective, a pathogen is not simply a disease-causing agent, it is a self-replicating organism driven by evolutionary pressures to pass on as many copies of itself as possible. In this context, so-called "cultural vectors"--those aspects of human behavior and the human environment that allow spread of disease from immobilized people--become more important than ever. Interventions to control diseases don't simply hinder their spread but can cause pathogens and the diseases they engender to evolve into more benign forms. In fact, the union of health science with evolutionary biology offers an entirely new dimension to policy making, as the possibility of determining the future course of many diseases becomes a reality. By presenting the first detailed explanation of an evolutionary perspective on infectious disease, the author has achieved a genuine milestone in the synthesis of health science, epidemiology, and evolutionary biology. Written in a clear, accessible style, it is intended for a wide readership among professionals in these fields and general readers interested in science and health.</p>
Title:	<p>Why We Get Sick: The New Science of Darwinian Medicine By: Randolph M. Nesse and George C. Williams ISBN: 978-0679746744</p>
<input type="checkbox"/> Required <input type="checkbox"/> Recommended	<p>Is our tendency to "fix" our bodies with medicine keeping them from working exactly as they're supposed to? Two pioneers of the emerging science of Darwinian medicine argue that illness is part and parcel of the evolutionary system and as such, may be helping us to evolve towards better adaptation to our environment.</p>