Microbiology of Waterborne Diseases, Second Edition: Microbiological Aspects and Risks

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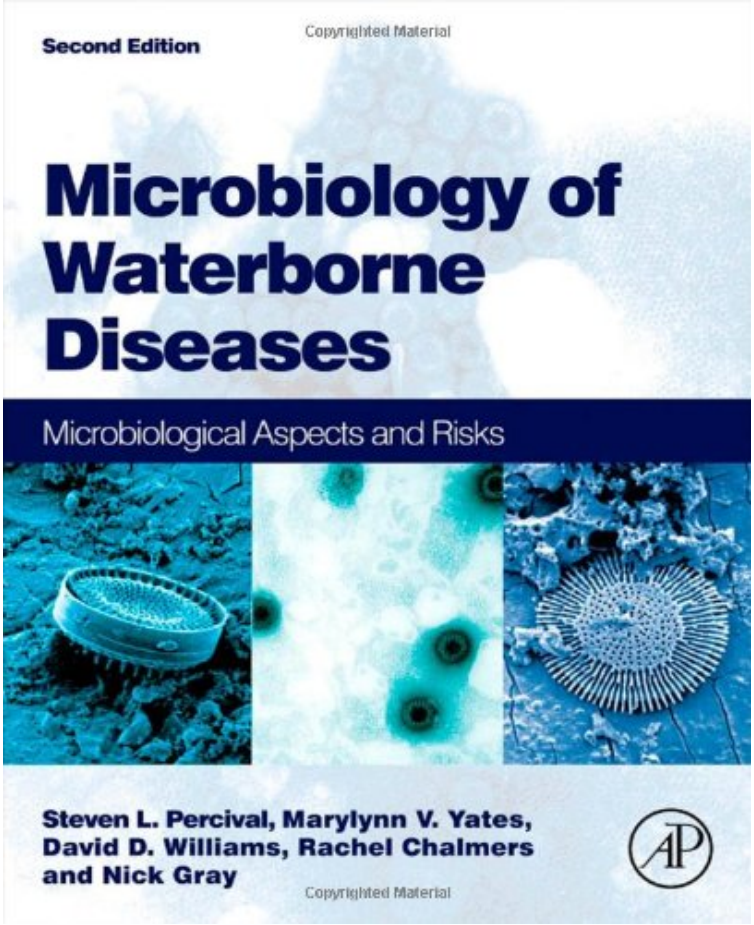

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0 of 0 people found the following review helpful. Five StarsBy JonathanExcellent reference! Great breakdown of the most common waterborne pathogens. I highly recommend this text.0 of 0 people found the following review helpful. Excellent text. Not quite as encyclopedic as it could ...By P.J. NossExcellent text. Not quite as encyclopedic as it could be, but very good for most scientific reference.

The second edition of Microbiology of Waterborne Diseases describes the diseases associated with water, their causative agents and the ways in which they gain access to water systems. The book is divided into sections covering

bacteria, protozoa, and viruses. Other sections detail methods for detecting and identifying waterborne microorganisms, and the ways in which they are removed from water, including chlorine, ozone, and ultraviolet disinfection. The second edition of this handbook has been updated with information on biofilms and antimicrobial resistance. The impact of global warming and climate change phenomena on waterborne illnesses are also discussed. This book serves as an indispensable reference for public health microbiologists, water utility scientists, research water pollution microbiologists environmental health officers, consultants in communicable disease control and microbial water pollution students.Focuses on the microorganisms of most significance to public health, including E. coli, cryptosporidium, and enterovirusHighlights the basic microbiology, clinical features, survival in the environment, and gives a risk assessment for each pathogenContains new material on antimicrobial resistance and biofilmsCovers drinking water and both marine and freshwater recreational bathing waters

"...highly recommended for academic, medical, and special libraries with relevant programs. The text is well-written and highly understandable, and presents an excellent summary of waterborne pathogens and their relevance to drinking water."--E-STREAMS"This multi-author book provides current knowledge on drinking water pathogens highlighting their microbiology, clinical features, survival in the environment and risk assessmentThis book will serve as a reference material for public health microbiologists, water utility scientists, water pollution research microbiologists, environmental health officers, consultants in communicable disease control, and microbial water pollution students"--CAB AbstractsFrom the Back CoverMicrobiology of Waterborne Diseases provides fully updated and completely revised information on the diseases associated with water, the pathogens that cause them, and the ways in which they gain access to water systems and prospects for control. New sections in each pathogen-specific chapter cover antimicrobial resistance and evidence in biofilms, and a new section fully details classic and emerging methods for control. Epidemiology, the impact of global warming and recreational waterborne diseases are also discussed and a new author team composed of world-renown experts has been put into place. This reference will continue to serve as an indispensable reference for microbiologists, public health officials, water and wastewater treatment professionals, environmental health officers, and students in the infectious disease fields. The 2nd edition of this comprehensive text provides an in-depth account of all aspects of water. M.Methods for detecting waterborne microorganisms and how they are identified are described, along with the survival of disease-causing organisms, ways in which they are removed from water, and the risks they present to water users. Waterborne diseases, specifically those caused by unsafe drinking water, present a serious global health threat. Understanding the pathogens that cause these diseases can lead to better forms of prevention and control.About the AuthorProfessor Steven L. Percival holds a PhD in medical microbiology and biofilms, a BSc in Applied Biological Sciences, PostgraduateCertificate in Education, diploma in Business Administration, an MSc in Public Health and an MSc in Medical and MolecularMicrobiology. He is also a fellow of the Institute of Biomedical Science and Institute of Biology. Early in his career, Steven held RD positions for over 3 years at The British Textile Technology Group Plc, followed then by 6 years as a senior university lecturer in medical microbiology and later the positions of Chief Scientific Officer and Director of R and D at Aseptica, Inc., and senior clinical fellowships at the Centers for Disease Control,Atlanta, and Leeds Teaching Hospitals Trust, Leeds, United Kingdom. More recently, Steven held senior RD manager positions at Bristol Myers Squibb, ConvaTec, Advanced Medical Solutions PLC and also held an honorary Professorship of Microbiology at West Virginia University. In2011, Steven joined ScapaHealthcare PLC as Vice President of Global Healthcare RD and was awarded an honorary Professorship at The University of Liverpool, UK. He has written over 260 scientific publications and conference abstracts on water microbiology, biofilms, antimicrobials, and infection control and has authored or edited six textbooks on biofilms and microbiology and provided over 100 presentations on biofilms and public health worldwide.Marylynn V. Yates is Professor of Environmental Microbiology and Distinguished Teaching Professor at the University of California, Riverside. She serves as Dean of the College of Natural and Agricultural Sciences, and is Chair of the University of California Global Health Institutes Education Committee. Dr. Yates holds a B.S. in Nursing from the University of Wisconsin, Madison, an M.S. in Chemistry from the New Mexico Institute of Mining Technology, and a Ph.D. in Microbiology from the University of Arizona. Her research interests include characterizing and predicting the fate and transport of human enteric pathogenic microorganisms in soils, water, and wastewater; development of methods for rapid, sensitive detection of infective enteric viruses in water samples; human pathogen considerations associated with wastewater reuse and biosolids application to land; and the use of indicators for predicting pathogen occurrence and behavior in the environment. Dr. Yates serves as an editor for Applied Environmental Microbiology, as a member of the Water Science Technology Board of the National Research Council, and on the USEPAs Science Advisory Board Drinking Water Committee. She is a fellow of the American Association for the Advancement of Sciences, the American Academy of Microbiology, and a National Associate of the National Academies of Science.Dr. Williams currently leads the Oral Microbiology Group based at the School of Dentistry, at Cardiff University, Cardiff, UK. Since Dr. Williams first degree (Cardiff University), he has worked in the pharmaceutical industry, food microbiology and as an academic researcher. Having completed a PhD at the School of Dentistry in Cardiff on the immunopathogenesis of oral candidosis, Dr. Williams research has continued within

Cardiff University and primarily focuses within the field of Clinical Microbiology with an emphasis on studies involving microbial biofilms. Dr. Williams research encompasses investigating biofilm susceptibility to antimicrobial agents, expression of virulence factors such as hydrolytic enzyme production, adhesion, and microbial modulation of innate immune responses. Of particular interest has been research into the development of biomaterials (e.g. silicone rubber, acrylic, titanium) to inhibit biofilm formation on medical devices. Dr. Williams is a previous recipient of the Senior Colgate Award (British Society for Oral and Dental Research) and the International Hatton Award (The International Association for Dental Research).Dr. Rachel Chalmers is the director of the Cryptosporidium Reference Unit, Public Health, Wales. Her research includes evaluation of new laboratory methods for Cryptosporidium detection, diagnosis, typing and subtyping, epidemiology and seroepidemiology, risk factors, and prevention.Nick Gray is Professor of Environmental Science at Trinity College Dublin and is a leading academic and researcher in the field of environmental engineering specializing in water and wastewater treatment processes. He has worked closely with the water industry for over 35 years both as a consultant and as a collaborative researcher. He has published a number of books, including Drinking Water Quality (Cambridge University Press), Water Technology (Elsevier), Biology of Wastewater Treatment (Imperial College Press), The coliform Index and Waterborne Diseases (Spon) and Activated Sludge (Oxford University Press), as well as over 150 research papers. He is the Director of the Water Technology Research Group based in the Centre for the Environment at Trinity College, University of Dublin.