

Oral Probiotics Fighting Tooth Decay Periodontal Disease And Airway Infections Using Natureaeurtms Friendly Bacteria

Chronic inflammation such as seen in periodontitis and its bidirectional influence on the systemic health has been of increased interest for a decade. In this text book, we have explored the biological and genetic pathways by which periodontal diseases may influence these disease processes and vice versa. Occlusal rehabilitation using the MEAW technique for the effective treatment of class II deep bite malocclusion and the timely management of cleft lip and palate to benefit the holistic welfare of the patient are presented here. The book addresses the development of bioinspired functionally graded dental restorative materials and also a simulation method that can improve clinical durability and enhance the functional capability of the dentition and indirect prostheses. In conclusion, various pathways for the promotion of oral health with evidence-based concepts are considered.

Improve Your Health by Fixing Your Mouth-Gut Microbiome Connection It's a popular theory that good health starts in your gut. But think about it: your mouth is the gateway to your gut. The good and bad bacteria in your mouth are directly linked to the bacteria in your digestive system. The oral microbiome can also affect illnesses and diseases like rheumatoid arthritis, diabetes, certain cancers, and more. That's why maintaining a balanced oral microbiome is one of the most important things you can do to set a solid foundation for your overall health. Heal Your Oral Microbiome is the first book out there to focus exclusively on the oral microbiome. In these pages, you'll learn how your mouth paves the way for full-body health, as well as how to identify common habits and practices that could be negatively impacting your unique microbiome. You'll also discover important steps you can take to heal and balance your mouth's microbes to boost your immune system, fight a variety of illnesses and create a solid foundation for your overall well-being.

Throughout the years, dental health has often been characterized as a reflection of our overall health, where bad oral health results from issues with other parts of our body. But what if we flipped the paradigm? What if we thought about dental health as the foundation for our physical health as a whole? Dr. Steven Lin, an experienced dentist and the world's first dental nutritionist, has analyzed our ancestral traditions, epigenetics, gut health, and the microbiome in order to develop food-based principles for a literal top-down holistic health approach. Merging dental and nutritional science, Dr. Lin lays out the dietary program that can help ensure you won't need dental fillings or cholesterol medications —and give you the resources to raise kids who develop naturally straight teeth. With our mouth as the gatekeeper of our gut, keeping our oral microbiome balanced will create a healthy body through a healthy mouth. Dr. Lin arms you with a 40-day meal plan, complete with the Dental Diet food pyramid, exercises for the mouth, recipes, and cooking techniques to help you easily and successfully implement his techniques into your everyday life. The tools to improve overall wellness levels and reverse disease are closer than we think —in our markets, in our pantries, and, most frequently, in our mouths —if not just a well-chosen bite or two away.

Adams presents clear evidence for probiotics' ability to directly engage and defeat infectious microorganisms, boosting the immune system while under attack.

Thousands of years ago, Hippocrates said that all disease begins in the gut. Scientific research has proven this idea to be true. In Healthy Gut, Healthy You, clinician and researcher Dr. Michael Ruscio shows how modern lifestyle changes and the widespread use of antibiotics have made our guts more vulnerable than ever before.

This book offers a unique perspective on the invisible organ, a body part that has been visualized only recently. It guides the readers into the world of the microbial constituents that make humans the way they are. The vitamins they produce, the smell they generate, the signals they create, and the molecular guards they elaborate are some of the benefits they bestow on humans. After introducing the notion as to why microbes are an integral component in the development of humans, the book examines the genesis of the microbiome and describes how the resident bacteria work in partnership with the skin, digestive tract, sexual organs, mouth and lungs to execute vital physiological functions. It then discusses the diseases that are triggered by the disruption of the harmonious relationships amongst these diverse systems and provides microbial cures to ailments such as obesity and digestive complications. Finally, the book focuses on the future when the workings of the human microbes will be fully unravelled. Societal changes in health education, the establishment of the microbiome bank, the fight against hunger, space travel, designer traits and enhanced security are explained. Each chapter is accompanied by captivating illustrations and ends with a visual summary. Dr. Appanna has been researching for over 30 years on various aspects of microbial and human cellular systems. He is a professor of biochemistry and has also served as Department Chair and Dean of the Faculty at Laurentian University, Sudbury, Canada. The book is aimed at readers enrolled in medical, chiropractic, nursing, pharmacy, and health science programs. Practicing health-care professionals and continuing education learners will also find the content beneficial.

Learn the secret to avoiding osteoporosis and heart disease. Rheume-Bleue shows that vitamin D and calcium supplements actually increase the risk of heart attack and stroke, and teaches you about vitamin K2, a little-known supernutrient that humans once thrived on-- and that has been ignored by scientists.

You brush, floss, use mouthwashes, and are concerned about the foods you eat, yet you still require fillings or lengthy cleanings at the dentist. In Kiss Your Dentist Goodbye, Dr. Ellie Phillips teaches how anyone can achieve and maintain a truly healthy mouth. Empower yourself as you improve the look and feel of your teeth between dental visits. Your dentist will be amazed at the changes he sees, and you will be thrilled as cavities and gum disease become a thing of the past. Traditional dentistry cannot prevent dental disease. But Ellies do-it-yourself daily routine can. Discover how easy it is to reduce plaque buildup, strengthen tooth enamel, repair small cavities, eliminate tooth sensitivity, and improve your overall oral health. Learn about products that hinder your efforts and the risks of bleaching, dental sealants and the wrong use of fluoride. It is time to achieve healthy, clean teeth and gums and wow your dentist at the next appointment. Surprising as it may seem, getting eight hours of sleep is the wrong approach to achieve great health and top performance. Most people with disrupted sleep don't know what they're missing because they've never experienced anything different. This book will teach you how to achieve your highest quality sleep to become your best, brightest, most capable self. This 3-step program will show you how you can get the kind of sleep that unlocks your ability to: - Achieve your perfect weight by suppressing your appetite naturally - Slow down the aging process -

Wake up happy and refreshed every morning - Improve your energy levels, concentration and mental focus - End daytime sleepiness and brain fog

Whether we realize it or not, we carry in our mouths the legacy of our evolution. Our teeth are like living fossils that can be studied and compared to those of our ancestors to teach us how we became human. In *Evolution's Bite*, noted paleoanthropologist Peter Ungar brings together for the first time cutting-edge advances in understanding human evolution with new approaches to uncovering dietary clues from fossil teeth. The result is a remarkable investigation into the ways that teeth—their shape, chemistry, and wear—reveal how we came to be. Traveling the four corners of the globe and combining scientific breakthroughs with vivid narrative, *Evolution's Bite* presents a unique dental perspective on our astonishing human development.

This book is a well-illustrated and comprehensive guide to the etiology, clinical manifestations, diagnosis, clinical management and prevention of dental caries. Current challenging problems in the field are analyzed and the latest research findings, presented. After an introductory chapter on tooth development, the relationships of biofilm and saliva to dental caries and the significance of the balance between demineralization and remineralization for the development of carious lesions are discussed. Subsequent chapters address the state of the art in diagnosis and treatment, the implications of disease burden for prevention and the association between systemic diseases and dental caries. *Dental Caries: Principles and Management* is intended for dental school students, practicing dentists and researchers in dentistry.

A comprehensive, completely practical manual on how to care for your child's teeth from in the womb to age 18. Written by a biochemist/pediatric dentist/father of three who shows the science of why focusing on snack foods is the most important thing to do, and is actually less work instead of more. Learn how to spend the least amount of energy possible, and get the best results, and none of your friends will think you are crazy! Dr. Lucas is a six time winner of "Best Kids Dentist" Golden Teddy Award in Seattle ParentMap Magazine and helped thousands of families stay cavity free, even without flossing! "I feel this book should sit on the shelves right next to "What to Expect When You are Expecting." The lessons are invaluable." -Erin, mother of five. "I have already suggested the book to my patients and I am having my staff read it to be able to share the information as well." -Dr. Nolan Gerlach, DDS "Learning some specifics about bacteria and its impact on cavity development was a game-changer for me. This book has given me clear guidance on what to feed my kids to promote overall health, not just oral health." -Prediabetic mom "Passionate, helpful primer about maintaining children's dental health from a parent and expert." - Kirkus Reviews "Unlike many health books, this book is clear and entertaining." -Dan "Finally a book that gets it right on preventing dental cavities!" -Dr. Philippe Hujoel, PhD, DDS, MS, Professor of Epidemiology and Oral Health Sciences, University of Washington School of Dentistry. ***** Every day across America and the world, parents hear the words "Your child has eight cavities." Almost every time, the parents are completely surprised. Many times, neither the parents nor the dentists know why. The parents are confused because their child had a healthy diet and avoided sugar. Learn how to not get surprised by these cavities like over 70% of 7 years olds in America have. You read that correctly! Over 70% of children have a cavity by age seven, and nobody expects it to be their kid! If your child already had cavities, learn how to not keep getting them again accidentally in the adult teeth. This book will help parents following any nutrition plan, from paleo to "what's at Costco?" You will learn why preventing cavities is counter-intuitive, and can actually be less work instead of more effort. Dr. Lucas discusses the three myths of cavity prevention: Why baby teeth are important Why it isn't just genetics or weak enamel that causes cavities. (98% of the time) How a child or adult could easily get cavities even if avoiding all sugar and having excellent brushing habits (and even flossing) You will learn why the foods you give your kids are ten times more important than the time you spend brushing and flossing. (Brushing is still recommended, of course - however once you learn the right foods to give your kids, you can emphasize brushing less, like the author does with his own kids.) Dr. Lucas also explains how to use emotion-coaching techniques to be able to set healthy limits for your family. You will also learn many of the common questions and pitfalls that other parents have had so you don't have to experience them yourself. By the time you finish this easy to read book, you will want to pass it on to your dentist, and other parent friends at baby showers once you see that a diet-based paradigm will be the new standard to prevent cavities. 100% of Net Proceeds in 2016 will be donated to Healthy Smiles, Healthy Children: The Foundation of the American Academy of Pediatric Dentistry

This book provides an up-to-date perspective on oral biofilms and dental materials, equipping readers with a sound understanding of their mutual interactions. Experts from across the world comprehensively describe the main strategies that can be followed when designing modern bioactive and biomimetic dental materials, bearing in mind the goal of reducing the occurrence of pathological conditions such as secondary caries and peri-implantitis. The background to the book is the rapid expansion in the use of nanotechnologies and modern techniques to achieve levels of performance of dental materials that were unthinkable even a few years ago. Whereas conventionally dental materials have been regarded as inert, an important paradigm shift is underway: now, these materials are being conceived as bioactive and biomimetic. Modern dental materials can produce a response by interacting positively both with the host and with the biofilm permanently colonizing hard and soft tissues of the oral cavity. These materials increasingly mimic the behavior of the tissues that they are replacing. In documenting the latest knowledge in the field, this book will be of value for both scientists in the fields of nanotechnology, biofilms and dental materials and interested clinicians.

Biofilms are highly organized polymicrobial communities that are embedded in an extracellular matrix and formed on natural and artificial surfaces. In the oral cavity, biofilms are formed not only on natural teeth, but also on restorative materials, prosthetic constructions, and dental implants. Oral diseases like caries, gingivitis, periodontitis, and also pulp inflammation are associated with biofilms. This publication is an up-to-date overview on oral biofilms from different clinically relevant perspectives. Experts comprising basic researchers and clinicians report on recent research relating to biofilms - from general summaries to recommendations for daily clinical work. This book covers all aspects of oral biofilms, including models used in the laboratory, biofilms in dental water unit lines, periodontal and peri-implant biofilms, caries-related biofilms, halitosis, endodontic biofilms, and *Candida* infections, as well as biofilms on dental materials and on orthodontic appliances. Several chapters deal with anti-biofilm therapy, from the efficacy of mechanical methods and the use of antimicrobials, to alternative concepts. This publication is particularly recommended to dental medicine students, practitioners, other oral healthcare professionals, and scientists with an interest in translational research on biofilms.

Oral Probiotics Fighting Tooth Decay, Periodontal Disease and Airway Infections Using Nature's Friendly Bacteria

A New Revolutionary Breakthrough In Dental Health Can you regrow teeth? That's the question you're probably wondering. The answer is...yes...but not in the way you may think. Let's put it this way, your body can't grow back a new tooth like it would for a piece of hair, nail, or skin layer that naturally replaces itself. However, a tooth can be regrown on a surface level which is

known as “tooth remineralization.” What is tooth remineralization? It’s the regrowth process of restoring vital minerals and adding back layers to your teeth to make them stronger, bigger, and more solidly whole again. Your teeth will naturally weaken over time due to continuous use and even abuse (e.g., using your teeth as a tool to open things), overexposure to unhealthy diets high in sugar, poor oral hygiene from neglect of regular tooth brushing and mouth cleaning, etc.—resulting in all-too-common tooth decay, cavities, gum diseases, and other dental problems. The reality is that you only get one set of teeth in your life (excluding baby teeth). If you fail to take care of the teeth you have now, you’re going have to spend thousands of dollars and up for expensive dental works later down the road. On the other hand, if you’re one of the few who takes up the practice of manually performing tooth remineralization as soon as possible—you can restore your teeth back to its healthy natural state and keep them for life. Here’s what you will discover inside “Tooth Regrowth”: * The NASA-developed toothpaste used by astronauts to remineralize teeth. * The oldest medicinal system in the world to restore your pearly whites. * The natural herbal approach to rejuvenate the regrowth process in your mouth. * The most potent way to get your calcium intakes for building strong teeth. * The connective-tissue acid to fight periodontitis and reverse receding gums. ...and that’s simply scratching the surface of tooth remineralization. Don’t let your teeth deteriorate to the point where it’s too late to fix the problem that you could have prevented or fixed yourself. Pick up “Tooth Regrowth” now to remineralize your teeth and reclaim a healthy shiny smile that you can be proud of.

"Every mouth is full of bacteria, yeasts, fungi and viruses. Can we stop these infectious microorganisms from making us sick? Today, with millions donning face masks, washing with antibacterial soaps, and sanitizing classrooms, hospitals and other public places, we need new solutions. Peer-reviewed research from some of the world's foremost microbiologists is now demonstrating that the probiotic bacteria in our mouth can be used to reduce or prevent infections from invading the body's internal tissues. Our oral probiotics can be our first line of defense against some of the most dangerous diseases, including those caused by aggressive bacteria, flu viruses and yeasts. In this groundbreaking book, the author details the newest research revealing the cooperative roles friendly oral bacteria play within our immune system to fight infection and prevent disease. Guidance on supplementation and on how to encourage the growth of our resident oral probiotic colonies is also described. A must read for anyone wanting to strengthen the immune system and stay healthy"--Realnatural, Inc. website.

Making Peace with Microbes Public sanitation and antibiotic drugs have brought about historic increases in the human life span; they have also unintentionally produced new health crises by disrupting the intimate, age-old balance between humans and the microorganisms that inhabit our bodies and our environment. As a result, antibiotic resistance now ranks among the gravest medical problems of modern times. Good Germs, Bad Germs addresses not only this issue but also what has become known as the "hygiene hypothesis"—an argument that links the over-sanitation of modern life to now-epidemic increases in immune and other disorders. In telling the story of what went terribly wrong in our war on germs, Jessica Snyder Sachs explores our emerging understanding of the symbiotic relationship between the human body and its resident microbes—which outnumber its human cells by a factor of nine to one! The book also offers a hopeful look into a future in which antibiotics will be designed and used more wisely, and beyond that, to a day when we may replace antibacterial drugs and cleansers with bacterial ones—each custom-designed for maximum health benefits.

The oral cavity supports a rich and diverse microbial population. Oral health is dependent on the maintenance of stable microbial communities; disease occurs when this balance is disturbed and more pathogenic species outgrow the commensals. Health and disease in the mouth are active processes in which the ecology of communities, not of single organisms, is paramount. Expert authors from around the world provide an update on recent developments in the burgeoning field of oral microbial ecology. The focus of the book is on the most topical areas in oral microbiology and the volume is a major new work in the field. The chapters are arranged into five sections: microbial populations in oral biofilms, the structure of oral biofilms, communication and sensing within biofilms, health to disease - the microbial community perspective, and new approaches for oral biofilm control. Specialist authors contribute chapters on various topics including population biology, detection and culture of novel

If the thought of bacteria conjures images of germs that should be avoided at all costs—and certainly not ingested—think again! Some friendly bacteria, called probiotics, are not only beneficial to your health, they’re essential. Now an internationally recognized scientist at a top U.S. medical school—one of the leading researchers in the field—sheds light on the extraordinary benefits of these natural health superstars. Thanks to an explosion of research in recent years, one thing is clear: probiotics, the healthy bacteria that inhabit the digestive tract, are the body’s silent partners for good health, optimizing the power of the immune system to fight disease and the “bad” germs we fear. But how do they work? And in the face of factors like stress and poor diet, which decrease their numbers, how do you keep your supply well stocked? Here is an up-to-the-minute, highly accessible guide to probiotics and the foods and supplements that contain and support them—many of which may be in your diet already. Discover: The key role of probiotics and prebiotics in restoring healthy balance to our bodies, improving immune system functioning, and curbing inflammation How to use probiotic foods and supplements to prevent and relieve allergies, inflammatory bowel disease, irritable bowel syndrome, yeast infections, and the negative side effects of antibiotic use New evidence that probiotics may help fight asthma, cardiovascular disease, breast and colon cancer, autoimmune diseases, chronic fatigue, fibromyalgia—and even obesity Natural sources of prebiotics, the nutrients that help make the digestive tract more hospitable for probiotic bacteria The Probiotics Revolution also includes a step-by-step plan for incorporating the many food sources of probiotics and prebiotics into your diet, a complete buyer’s guide to probiotic supplements, and how to introduce probiotics to your family and children.

Brightly colored, user friendly chart covering the Anatomy of the Teeth. The large central image shows a detailed cross section of a tooth and surrounding gum and bone with clearly labeled anatomic features. Also includes labeled illustrations of the following: primary teeth permanent teeth function and types of teeth tooth decay childhood dentition oral cavity innervation and blood supply Made in the USA. Available in the following versions : 20" x 26" heavy paper laminated with grommets at top corners ISBN 9781587790997 20" x 26" heavy paper ISBN 9781587791000

The revised edition of the best-selling book on Applied Kinesiology, Applied Kinesiology, Revised Edition introduces a diagnostic method that uses manual muscle testing to assess the body's "Triad of Health"--structure, chemistry, and psyche. To perform a muscle test, the practitioner applies light pressure that the client then resists. If the client cannot resist the pressure, the muscle "tests weak," indicating a structural problem or imbalance that needs to be resolved. Further applications include working with a muscle that tests strong "in the clear" as a diagnostic tool to determine the effect of stimuli including touch, nutrients, medicines, allergens, emotions, poor posture, and stressful memories. Opening with a detailed description of the history and applications of Applied Kinesiology, the book covers the theory, procedure, and interpretation of the muscle test including diagnosis and correction techniques for areas of weakness. Thirty-three muscle tests for different areas of the body are accompanied by instructive photographs with superimposed anatomical drawings that demonstrate the method and various treatment points. A useful appendix includes a glossary of anatomical terms and special vocabulary; a step-by-step plan for conducting a session; and a list of contacts and sources for Applied Kinesiology materials. Offering a new preface and additional techniques in the areas of manual medicine, orthomolecular medicine, and psychology, this revised edition shares the author's discoveries as well as anecdotal observations to stimulate further research. Table of Contents: Foreword; Introduction; Chapter 1: From Biomechanics to Applied Kinesiology; Chapter 2: Scientific Principles of Applied Kinesiology; Chapter 3: The Muscle Test; Chapter 4: Pretests; Chapter 5: Diagnosis and Correction Techniques; Chapter 6:

Muscle Tests; Chapter 7: Applied Kinesiology and Manual Medicine; Chapter 8: Applied Kinesiology and Orthomolecular Medicine; Chapter 9: Applied Kinesiology and the Psyche; Chapter 10: Personal Discoveries and Garnered Methods for Further Consideration; Appendices; Index

This book examines the role of fermented foods on human gut health and offers a unique contribution to this rapidly growing area of study. Fermented foods have been consumed by humans for millennia. This method of food preservation provided early humans with beneficial bacteria that re-populated the gut microbiota upon consumption. However, novel methods of production and conservation of food have led to severed ties between the food that modern humans consume and the gut microbiota. As a consequence, there has been a documented increase in the prevalence of autoimmune diseases and obesity, which has been correlated to decreased diversity of gut microbes, while infectious disorders have decreased in the three past decades. With the intention of providing a thorough overview of the relationship between fermented foods, nutrition, and health, the editors have grouped the chapters into three thematic sections: food and their associated microbes, the oral microbiome, and the gut microbiome. After an introduction dedicated to the environmental microbiome, Part I provides an overview of what is currently known about the microbes associated with different foods, and compares traditional forms of food preparation with current industrial techniques in terms of the potential loss of microbial diversity. The chapters in Part 2 explore the oral microbiota as a microbial gatekeeper and main contributor to the gut microbiota. Part 3 introduces beneficial modulators of the gut microbiome starting with the establishment of a healthy gut microbiota during infancy, and continuing with the role of probiotics and prebiotics in health preservation and the imbalances of the gut microbiota. In the final section the editors offer concluding remarks and provide a view of the future brought by the microbiome research revolution. This study is unique in its emphasis on the convergence of two very relevant fields of research: the field of studies on Lactic Acid Bacteria (LAB) and fermented foods, and microbiome research. The relationship between these fields, as presented by the research in this volume, demonstrates the intimate connection between fermented foods, the oral and gut microbiota, and human health. Although research has been done on the impact of diet on the gut microbiome there are no publications addressing the restorative role of food as microbe provider to the gut microbiota. This novel approach makes the edited volume a key resource for scientific researchers working in this field.

There is a holistic alternative to conventional dental treatments which can help you heal tooth pain, reduce tooth infections, halt tooth decay and inhibit gum disease. Learn about a flexible whole foods dietary program pioneered by the head of research at the National Dental Association, Weston Price D.D.S. that proved 90-95% effective in halting cavities. Cure Tooth Decay provides clear and easy to understand dental facts so you can make healthy, life affirming choices about your dental health, including a non-surgical approach to halt baby-bottle tooth decay. Learn five nutritional programs that Nagel used to cure his own cavities, and halt his daughter's severe cavities. Restore dental and oral health through nutrition and lifestyle, not harmful chemicals and surgery. This is the first book to be endorsed by the Holistic Dental Association because, as its president Dr. Gallagher says, "Cure Tooth Decay is treasure-trove of wisdom as it takes the mystery out of dental health."

Free yourself from the downward spiral of scaling, root planing, gum grafts, flap surgery, chemicals, and the inevitable extractions and implants and cure gum disease (periodontitis) naturally. Ramiel Nagel's bestselling guide, Cure Tooth Decay, has inspired tens of thousands of readers to discover hidden and effective means to reduce dental cavities by at least 90 percent. In Cure Gum Disease Naturally, Nagel expands upon his original work and shows you the forgotten and suppressed cure for gum disease. The CDC now reports that about half of all adult Americans suffer from periodontal disease, with 8.5 percent of all adults having severe gum disease. And even worse, 23 percent of all adults aged sixty-five and older have lost all of their teeth. Despite the prevalence of periodontal disease, dentistry has not found the "cure" as it continues to allow adults to lose their teeth only to primarily offer the expensive and often painful alternative of dental implants. This is not a book that advocates for gum surgery, or for other chemical or harsh overpriced treatments with dubious results. This is a truly natural, holistic approach that primarily focuses on how you can use the food that you eat as medicine for your body, to give it specific and targeted nutrition, and to make your sad gums happy again. It will show you how to turn the frequent dreadful dental visits into a delight, and to help you stop worrying about the health of your teeth and gums so you can start living life-as you deserve to-once again. Take a bite out of life, improve how you feel, reduce your level of stress, and finally, at last, read a book that was truly written with a goal that you can align with, to get you out of the endless and unnecessary cycle of gum disease treatments that do not provide results that last because they never address the root cause. Cure Gum Disease Naturally is about you and your health. It begins with the story of how conventional dentistry no longer advocates and prescribes treatments based upon the agreed upon and proven cause of gum disease. You will learn how enlightened dentists Melvin Page and Harold Hawkins applied the research of esteemed dentist Weston Price in their practices to prevent the tragic loss of teeth by restoring gum health in their patients. You will then be led, step by step, through the evidence and the information that gives you a precise and detailed road map, using whole foods, to stop gum disease and to rebuild and repair your gums. Finally, you will be given essential information to navigate the dangerous waters of gum treatments, and find new ways to care for your teeth and gums that until now, few knew were even possible. Read Cure Gum Disease Naturally and learn how loose teeth can be firmed up and become rooted like a strong tree once again into your jaw bone, inflamed gums can become healthy, and bleeding can be greatly reduced and stopped. You will at last see clearly why you have succumbed to gum disease and know specific steps to take, by eating certain foods, to keep your gums healthy and thus keep your teeth for the rest of your life.

Throughout the biological world, bacteria thrive predominantly in surface-attached, matrix-enclosed, multicellular communities or biofilms, as opposed to isolated planktonic cells. This choice of lifestyle is not trivial, as it involves major shifts in the use of genetic information and cellular energy, and has profound consequences for bacterial physiology and survival. Growth within a biofilm can thwart immune function and antibiotic therapy and thereby complicate the treatment of infectious diseases, especially chronic and foreign device-associated infections. Modern studies of many important biofilms have advanced well beyond the descriptive stage, and have begun to provide molecular details of the structural, biochemical, and genetic processes that drive biofilm formation and its dispersion. There is much diversity in the details of biofilm development among various species, but there are also commonalities. In most species, environmental and nutritional conditions greatly influence biofilm development. Similar kinds of adhesive molecules often promote biofilm formation in diverse species. Signaling and regulatory processes that drive biofilm development are often conserved, especially among related bacteria. Knowledge of such processes holds great promise for efforts to control biofilm growth and combat biofilm-associated infections. This volume focuses on the biology of biofilms

that affect human disease, although it is by no means comprehensive. It opens with chapters that provide the reader with current perspectives on biofilm development, physiology, environmental, and regulatory effects, the role of quorum sensing, and resistance/phenotypic persistence to antimicrobial agents during biofilm growth.

The future of medicine—and the key to a healthier life—starts in your mouth American dentists are beginning to discover what some of their European counterparts have long understood: Many common chronic conditions—obesity, inflammation, stroke, diabetes, Alzheimer's, heart disease, and cancer, among others—often have their origins in the mouth. In a groundbreaking new work, German dentist Dr. Dominik Nischwitz presents the principles of biological dentistry along with emerging scientific research on the mouth's vital role in the body's microbiome—a key to whole body wellness. Challenging conventional dental wisdom that views the teeth as separate from the rest of the body, and conventional dental practices that often cause more harm than good, *It's All in Your Mouth* delivers: The latest research on the microbiome and the mouth Critical information on the dangers of root canals and amalgam fillings The important role of nutrition in oral health and hygiene A clarion call for a new approach to dentistry Sensible, holistic, and humane, *It's All in Your Mouth* offers a necessary new approach to natural immunity to chronic disease and integrating dental hygiene into whole body health.

A comprehensive guide to natural, do-it-yourself oral care, *Holistic Dental Care* introduces simple, at-home dental procedures that anyone can do. Highlighted with fifty-three full-color photos and illustrations, this book offers dental self-care strategies and practices that get to the core of the problems in our mouths--preventing issues from taking root and gently restoring dental health. Based on a "whole body approach" to oral care, *Holistic Dental Care* addresses the limits of the traditional approach that treats only the symptoms and not the source of body imbalances. Taking readers on a tour of the ecology of the mouth, dental health expert and author Nadine Artemis describes the physiology of the teeth and the sources of bacteria and decay. Revealing the truth about the artificial chemicals in many toothpastes and mouthwashes, Artemis also discusses the harmful effects of mercury fillings and the much safer ceramic filling options that are available. Covering topics that include healthy nutrition, oral care for children, and the benefits of botanical substances and plant extracts for maintaining oral health, Artemis introduces a comprehensive eight-step self-dentistry protocol that offers an effective way to prevent decay, illness, acidic saliva, plaque build-up, gum bleeding, inflammation, and more.

All-in-one resource in for everything related to fluoridated water, from its impact on dental health to its safety and cost-effectiveness. Dispelling common myths that fluoridation is dangerous, this book provides science-backed information based on the most current research in Q&A format. This is the most in-depth and up-to-date educational resource available regarding fluoridated water, from the American Dental Association.

Probiotics, Prebiotics, and Synbiotics: Bioactive Foods in Health Promotion reviews and presents new hypotheses and conclusions on the effects of different bioactive components of probiotics, prebiotics, and synbiotics to prevent disease and improve the health of various populations. Experts define and support the actions of bacteria; bacteria modified bioflavonoids and prebiotic fibrous materials and vegetable compounds. A major emphasis is placed on the health-promoting activities and bioactive components of probiotic bacteria. Offers a novel focus on synbiotics, carefully designed prebiotics probiotics combinations to help design functional food and nutraceutical products Discusses how prebiotics and probiotics are complementary and can be incorporated into food products and used as alternative medicines Defines the variety of applications of probiotics in health and disease resistance and provides key insights into how gut flora are modified by specific food materials Includes valuable information on how prebiotics are important sources of micro-and macronutrients that modify body functions

Comprehensive Preventive Dentistry provides oneuser-friendly resource that brings together information on thescientific basis and clinical practice of all aspects of preventivedentistry. This thorough and all-encompassing resource offerstechniques and strategies for maintaining excellent oral health inpatients through a regimen of preventive measures. *Comprehensive Preventive Dentistry* is grounded in apatient-centered, pre-emptive, and minimally invasive philosophy.The book begins by covering individual diseases, such as caries,periodontitis, and oral cancer, as well as therapies (sealants,fluoride) and other relevant conditions (toothwear,hypersensitivity). Additionally, concepts such as the role of dietand nutrition in oral health are discussed. Also covered are oralcare products and new techological developments in caries diagnosisand risk assessment, periodontal disease and oral cancer, as wellas new developments in home care products. A valuable and comprehensive companion that will appeal todentists and dental hygienists, this helpful new book provides itsreaders with one authoritative resource that offers a reliable andhelpful companion to practicing preventive dentistry.

Acclaimed oral health expert and wellness pioneer, Dr. Gerry Curatola, explores the bi-directional relationship between the health of your mouth and your body, and provides a groundbreaking program for creating a healthy mouth that will help maintain a healthy body. The mouth acts as mirror and a gateway and reflects what is happening in the rest of your body and the health of your mouth appears to have a profound impact on the rest of your body. Chronic, low-grade oral disease is a major source of inflammation throughout your body, which can sometimes result in serious systemic problems, including cardiovascular disease, type 2 diabetes, obesity, and premature birth. *The Mouth-Body Connection* educates the reader on the natural ecology of the mouth. The oral microbiome consists of communities of 20 billion microorganisms of more than six hundred types-keeping these communities balanced is the key to well-being. Dr. Curatola's program, thirty years in the making, helps to restore microbiome balance and reduce health-destroying inflammation. The Curatola Care Program fosters a healthy oral microbiome by means of diet, supplements, exercise, and stress reduction. Four weeks of meal plans and fifty delicious recipes will convince you that eating for balance can be a treat. There are supplement schedules for each stage, two high-intensity band workouts that take only 15 minutes twice a week, relaxation techniques, and yoga postures to fight inflammation. In just four weeks, you will reboot your body and begin to take control of your health.

Best of all, your brilliant smile will prove that you have never felt better.

You Can Heal Your Teeth and Gums Naturally Not only is it scientifically-proven that you can heal cavities and reverse gum disease. It doesn't have to be complicated or difficult either. In this book, author Joey Lott, takes you on a journey of discovery that will empower you to make simple, sustainable changes and take charge of the health of your teeth and gums. There's More to Dental Health Than Fluoride and Flossing There are natural ways to heal your teeth and gums that don't involve twice daily brushings and flossings. In fact, these standard methods of tooth care may not be doing as much for your dental health as you've been led to believe. Discover a new formula for repairing cavities, tightening up loose teeth, and healing receding gums that is natural and inexpensive. Find out which supplements really work and which may be over-priced and over-hyped. Learn about the vital role metabolism and hormonal health plays in your ability to regrow and remineralize your teeth. If you've been on the path of natural dental health for a while, you might be surprised by what you read! It Doesn't Require Restrictive Diets! Too many nutritional approaches to improving oral health involve restrictive diets. No sugar. No fruit. And swigs of cod liver oil between meals of kale and bone broth. But this common advice flies in the face of science as well as real-world results using an inclusive, enjoyable, sustainable approach to nutrition. Following the simple nutritional and lifestyle guidelines in this book, you'll soon prove it to yourself.

This book examines biofilms in nature. Organized into four parts, this book addresses biofilms in wastewater treatment, inhibition of biofilm formation, biofilms and infection, and ecology of biofilms. It is designed for clinicians, researchers, and industry professionals in the fields of microbiology, biotechnology, ecology, and medicine as well as graduate and postgraduate students. This book provides information to the readers starting with the history of oral hygiene manners, and modern oral hygiene practices. It continues with the prevalence and etiology of caries and remedy of caries through natural sources. Etiology of secondary caries in prosthetic restorations and the relationship between orthodontic treatment and caries is addressed. An update of early childhood caries is presented. The use of visual-tactile method, radiography and fluorescence in caries detection is given. The book finishes with methods used for the prevention of white spot lesions and management of caries.

The clinical microbiology laboratory is often a sentinel for the detection of drug resistant strains of microorganisms. Standardized protocols require continual scrutiny to detect emerging phenotypic resistance patterns. The timely notification of clinicians with susceptibility results can initiate the alteration of antimicrobial chemotherapy and improve patient care. It is vital that microbiology laboratories stay current with standard and emerging methods and have a solid understanding of their function in the war on infectious diseases. Antimicrobial Susceptibility Testing Protocols clearly defines the role of the clinical microbiology laboratory in integrated patient care and provides a comprehensive, up-to-date procedural manual that can be used by a wide variety of laboratorians. The authors provide a comprehensive, up-to-date procedural manual including protocols for bioassay methods and molecular methods for bacterial strain typing. Divided into three sections, the text begins by introducing basic susceptibility disciplines including disk diffusion, macro and microbroth dilution, agar dilution, and the gradient method. It covers step-by-step protocols with an emphasis on optimizing the detection of resistant microorganisms. The second section describes specialized susceptibility protocols such as surveillance procedures for detection of antibiotic-resistant bacteria, serum bactericidal assays, time-kill curves, population analysis, and synergy testing. The final section is designed to be used as a reference resource. Chapters cover antibiotic development; design and use of an antibiogram; and the interactions of the clinical microbiology laboratory with the hospital pharmacy, and infectious disease and control. Unique in its scope, Antimicrobial Susceptibility Testing Protocols gives laboratory personnel an integrated resource for updated lab-based techniques and charts within the contextual role of clinical microbiology in modern medicine.

Trillions of commensal microbes reside on and inside the human body, including the intestinal and respiratory tracts, which encompass various microbial taxa, such as bacteria, fungi, archaea and viruses. The close proximity of microbes with the host provides an opportunity to continually interact with each other. Advances in research approaches, including high-throughput sequencing, have allowed us to study host and commensal microbes at the genetic and functional levels. Recent studies suggest that commensal microbes play a crucial role in the development of the host's immune system and induce innate and adaptive immune responses against pathogens. It is also becoming apparent that the gut commensals are endowed with a capacity to alter immune responses in organs beyond the intestine, such as the lungs, highlighting the significance of the gut commensals in controlling systemic immunity. On the other hand, the host's immune system possesses the ability to shape the repertoire of commensal microbes and contribute to the establishment of beneficial relationships with them. A better understanding of host-commensal interactions will be important for designing effective vaccines and therapeutics against pathogens. This Research Topic sheds light on our current understanding of the interplay between the host's immune system and commensal microbes and how this interplay can be exploited for prophylactic and/or therapeutic strategies against pathogens.

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