The Human Microbiome: The Germs That Keep You Healthy

Rebecca E. Hirsch
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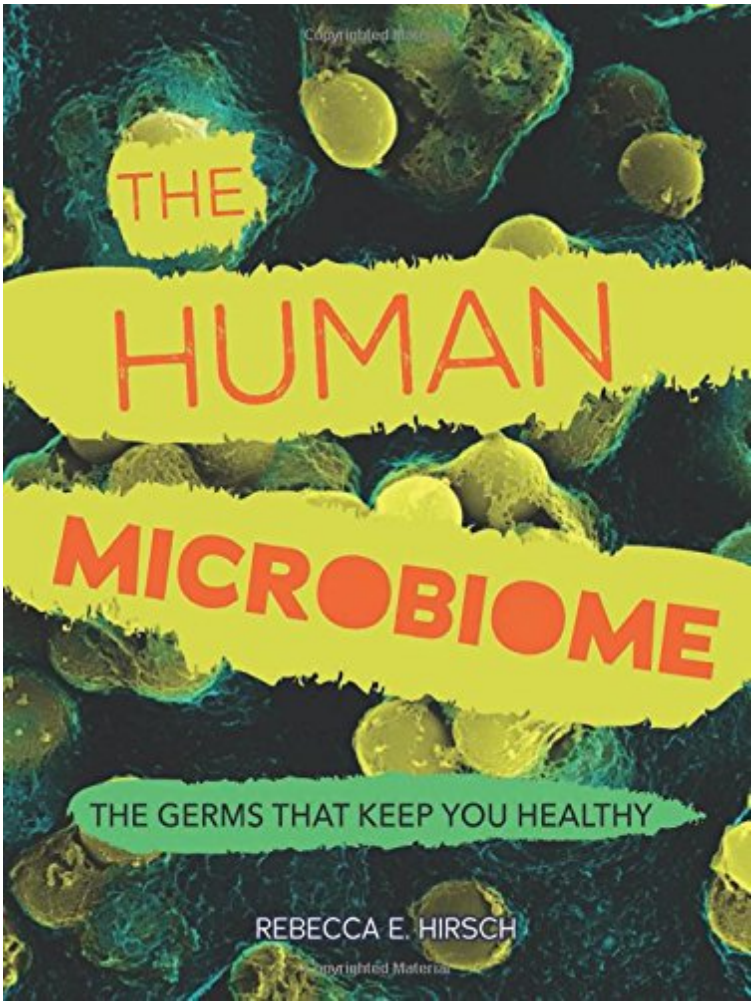

#1597578 in Books Rebecca E Hirsch 2016-08-01Original language:EnglishPDF # 1 9.10 x .50 x 7.10l, Binding: Library Binding112 pagesThe Human Microbiome The Germs That Keep You Healthy | File size: 73.Mb

Rebecca E. Hirsch : The Human Microbiome: The Germs That Keep You Healthy before purchasing it in order to gage whether or not it would be worth my time, and all praised The Human Microbiome: The Germs That Keep You Healthy:

1 of 1 people found the following review helpful. "The Human Microbiome" is a wonderfully illustrated book about antibioticsBy Olivia F."The Human Microbiome" is a wonderfully illustrated book about antibiotics, bacteria, and the modern age of antibiotic resistance. The microbiome is a hot topic right now and everyone is trying to get more information and better understanding. The vast majority of the book discusses the development and use of antibiotics rather than the microbiome in particular. The sections on the microbiome are smaller and less well-developed.Regardless, if you know what it is about and the topics it covers, it reads like your typical middle or high

school textbook and would be a nice complement to a high school biology course. It's very simplified and approachable, making it easy for the novice to understand.I wish there had been more discussion of the types and impacts of different bacteria in the gut, as this was a broad overview of bacteria and hints of more detailed info (but not in depth discussion). The aesthetics of the book are great- it's very nice to look at and read.Please note that I received this book from the publisher through netgalley in exchange for my honest review.0 of 0 people found the following review helpful. This is an amazing overview of the human microbiome that both young and old will be mesmerized by ...By D. FowlerPerhaps youve never even heard of a microbiome, but you do have one, one thats unique to you. It comprises two to five pounds in your body and its collection of microbes on and in you. You do have several organs you are quite familiar with, but the microbiome is yet another one you can add to that list. The immune system is a part of our microbiome, a system that kicks in to protect us from a wide variety of diseases, a system most of us are aware of. In this book youll learn that each of us is a superorganism and youll learn just exactly what that means and quite a bit more about how we function.As a superorganism we are made up of a complex blend of different kinds of organisms living together. Many of these organisms, mutualists, benefit us in return for assisting them. For example, in our stomachs there are microbes that help us with digestion and we help them by providing them a place to live. We have what are called harmless hitchhikers, but we also have disease-causing pathogens that can cause use big trouble. Remember that horrible flu you had? It was more than likely a pathogen at work. One unusual thing is that scientists see that a single microbe can be both a helper and a killer. A bit of a flip-flop, but it happens quite often.Naturally, you might think, it would be a good idea to get rid of everything that could possibly harm us. Wrong. Carl Woese, University of Illinois microbiologist, explains that if microbial life were to disappear, that would be itinstant death for the planet. Scientists have long been in search of the unseen world of microbes in order to learn more about ourselves and the world we live in. Robert Hooke was the first to observe this world and wrote about it in his book, Micrographia, is 1665. Hookes work had an impact on Anton van Leeuwenhock, who developed a microscope to peer into the world of bacteria.Interest never waned and by the time Louis Pasteur and German physician, Robert Koch, arrived on the scene they were just two of many who revolutionized medicine. The race was on, a race in which scientists strove to help humankind wage a battle against those pathogens that were killing us. It all began with the inadvertent discovery of penicillin. One of the first to benefit from its discovery was Ann Miller, a woman who was destined to die without it. In this book youll learn all about what happened to her and the strange, but true discoveries surrounding penicillin. Youll also learn about Moldy Mary, drug-resistant bacteria, superbugs, germ-free mice, the Human Microbiome Project, how the microbiome changes, and so much more about the fascinating world of the human microbiome.This is an amazing overview of the human microbiome that both young and old will be mesmerized by. I was easily able to see why this book became a Junior Literary Guild selection. The book was ultra-interesting from the first page to the last without duplicating a lot of material Ive seen before. There is naturally a brief look in the the past history of scientific exploration in the field, but Rebecca Hirsch brings us quickly into the present with current information. There are interesting vignettes such as how people foraged through dumps in search of mold that scientists could utilize to product penicillin. Naturally students will find these to be those how cool is that? moments as they read.The book has several photographs, reproductions of ephemera, and numerous informative sidebars. For example, in one we learn about the database in which scientists discover DNA fingerprints. Some of the sidebars quite nicely visually illustrate more difficult concepts such as horizontal gene transfer. I definitely liked this aspect as it helps not only the science buff, but also the more casual reader. In the back of the book is an index, a comprehensive glossary, source notes, a selected bibliography, and additional recommended book and website resources to explore.This book courtesy of the publisher.

Trillions and trillions of microbial cells live on and inside your body. A small number of these microbes are unhealthy germs. But most belong on your body and perform essential jobs. Microbes help digest your food, protect you from dangerous germs, and help your body fight disease. Using techniques such as DNA sequencing, scientists are uncovering the many secrets of the human microbiome. Scientists are learning how the foods we eat and the medicines we take, such as microbe-killing antibiotics, can affect the bugs in our bodies. They are learning more and more about this system that keeps us healthy and how we can protect it in return.

From School Library JournalGr 7 UpIt's hard to think of oneself as a mere physical plant for trillions and trillions of microbesmicroscopic creatures in a custom-individualized mixture (like a fingerprint) existing on us and in us, acting beneficially, neutrally, pathogenically, part and parcel of our personal selves. Hirsch's readable, lucid text introduces us to these colonizers/hitchhikers/attackers, where they live on/in us, what they do, how they benefit (mostly) or harm us, andequally importanthow we affect them and what it all means to our health in general. She discusses the "golden age" of antibiotics and the dangerous land mines implanted by their overusethe "superbugs" that have erected defenses against the best medicines we have to offer and the effects of antibiotic overuse on our food supply. And the author writes of how probiotics assist our bodies in providing a safe haven for our "bugs of choice." Information boxes abound on such interestingly diverse topics as "Solving Murders with Microbes," "The Strange Case of the

Disappearing Helicobacter Pylori," and the "Penicillin Girls." Advice boxes give instructions on "Tending Your Microbial Garden," handwashing, and taking your DNA "fingerprint." VERDICT Unexpectedly informative and up-to-the-minute in research, this is a nifty look through a clear window at our unsuspected personal passengers. Consider this in-depth resource for reports and students who are not easily made squeamish.Patricia Manning, formerly at Eastchester Public Library, NY Unexpectedly informative and up-to-the-minute in research, thisis a nifty look through a clear window at our unsuspected personalpassengers. --School Library JournalAbout the Author Rebecca E. Hirsch, Ph.D., is the author of numerous books about science, nature, and geography for children. She lives with her husband and three children in State College, Pennsylvania. You can visit her online at rebeccahirsch.com.