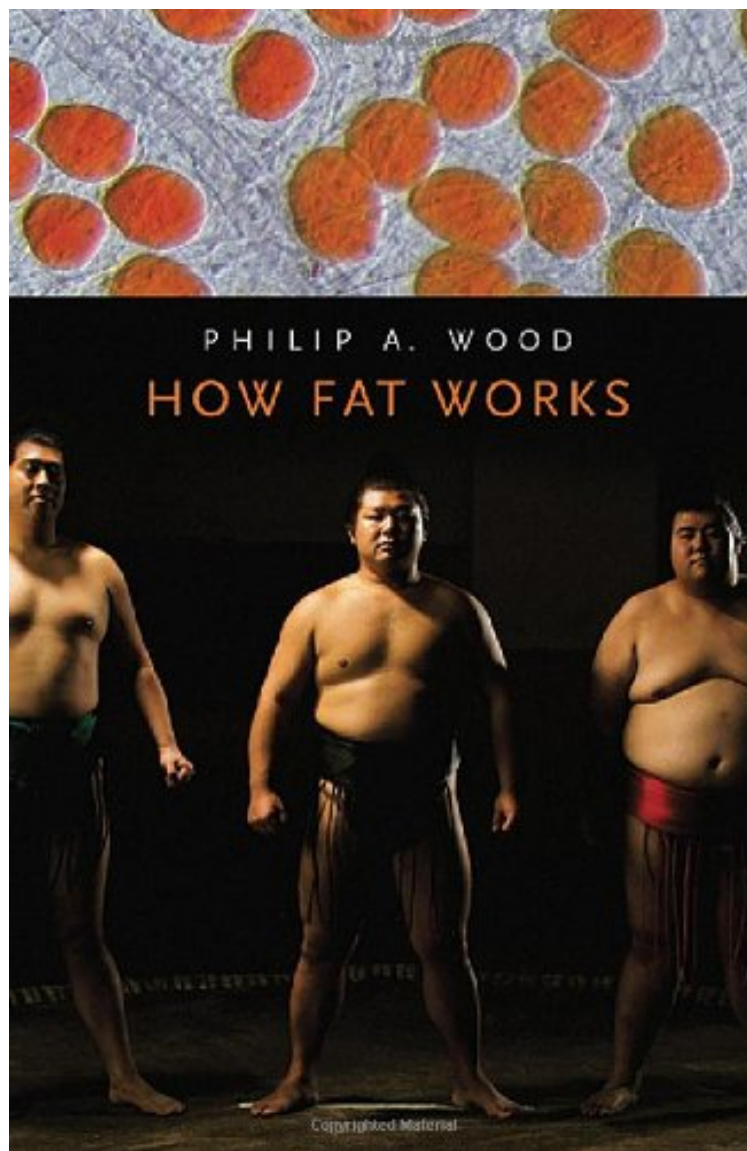


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How Fat Works

Philip A. Wood

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#1212143 in Books Harvard University Press 2006-01-30 Original language: English PDF # 1 .98 x 6.74 x 9.54l, 1.17 #File Name: 0674019474272 pages | File size: 38.Mb

Philip A. Wood : How Fat Works before purchasing it in order to gage whether or not it would be worth my time, and all praised How Fat Works:

3 of 3 people found the following review helpful. Excellent survey of lipid metabolism and obesity research By Dominick J. Lemas I am a graduate student in Biochemistry without a formal background in nutrition and obesity research. Most of what I understand about obesity has been obtained through seminars and informal discussions with my peers. How Fat Works provides a concise and direct survey of lipid metabolism that leaves the reader feeling like

they are part of the scientific dialog without indulging in too much jargon. I found this book to be a quick read that related fat metabolism (storage, oxidation, transport, and synthesis) to how an individual develops several obesity-related disorders such as type 2 diabetes. I particularly liked Dr. Woods discussion of how foods are converted to cholesterol and triglycerides and how abnormal lipid levels can result in insulin resistance. Overall I would recommend this book to students and professionals that are affiliated with nutrition without much time to enroll in formal courses covering obesity research. How Fat Works has helped me understand the general concepts related to body composition and lipid metabolism and provides a great list of references.3 of 3 people found the following review helpful. Metabolic biochemistry for DummiesBy James D. CostichAny one who is serious about achieving health - not just using medicine to put out the brushfires of disease we develop as a result of not knowing how to care for our bodies will benefit from this book. With this knowledge it's much easier to wade through the mountains of hype and sales pitches for junk diets we're all buried under. It's serious biochemistry presented in language anyone can follow.0 of 0 people found the following review helpful. Good overviewBy JCGood overview of how fat is digested, stored and metabolized. Nice that the molecular mechanisms are explained at a level understandable for people with some molecular training.

An experimental pathologist and molecular geneticist, Philip Wood uses gene-knockout technology to study the way mouse genes regulate the metabolism of fat; research that provides insights into the workings of fatty-acid metabolism in humans and what can happen when that metabolic balance goes awry. Based on the classes he regularly teaches to first- and second-year medical students, Wood's book reviews the individual and public health burden of obesity and clarifies often-used, but often inadequately explained, terms employed in the continuing cultural and scientific debate about excess fat. He explains the role of fat in the healthy body, how fat is made, stored, and burned, and demonstrates how excess fat can lead to an array of metabolic disorders and diseases, from hypercholesterolemia and insulin resistance to diabetes. He reviews what recent research can tell us about specific genes or groups of genes that can lead to specific metabolic disorders. He explains the science behind common weight-loss regimens and why those regimens might succeed or fail, and reviews the complex interplay of hormones, genes, and stress in the way our bodies deal with fat through the life cycle. How Fat Works is a concise, clear, and up-to-date primer on the workings of fat, and essential reading for professionals entering careers in medicine and public health administration or anyone wanting a better understanding of one of our most urgent health crises.

The obesity epidemic striking industrialized nations has led to a renewed research focus on the physiological causes and effects of excess fat in the body. Scientists are striving to understand how fat is metabolized and how excess fat leads to diseases such as diabetes. Wood, a metabolic geneticist at the University of Alabama at Birmingham, outlines his and others' recent findings on such topics. (Science News 2006-02-26)In How Fat Works, Philip Wood offers both professional and lay readers an excellent, nontechnical introduction to both the normal and the pathological physiology of fat metabolism...Amidst the ongoing debates over weight-loss regimes and how to formulate healthy diets for individuals, How Fat Works appears at an ideal moment. Wood writes in a clear and concise style, and he has produced an easy-to-understand overview of fat metabolism and its connections to human health. His account successfully blends results from genetic, physiologic, social, and environmental approaches to the topic. The book will help readers from any of those fields and the general public better appreciate the connections among high-fat diets, obesity, and diabetes. (James M. Ntambi Science 2006-05-05)How Fat Works is a saunter through the topic of fat. Philip Wood explores obesity and the diseases to which it predisposes; he describes the structure, function, and metabolism of fat; and he analyses some popular diets and their mode of action. Wood is an excellent communicator, his text refreshingly conversational and free of jargon without ever being simplistic or patronizing. This high readability factor makes the book easy to digest for rusty medics brushing up their knowledge and laypeople alike. The most fascinating chapters are the ones that cock a skeptical eyebrow at the sacred cow of the high carb, low fat regime. Endorsed for decades by health organizations, Wood presents compelling early evidence that this diet raises blood triglycerides far more than an isocaloric diet high in fats and low in carbs--the ultimate schadenfreude for oil aficionados who have for decades endured the self-righteous tutting of the pious and self-denying no-fat brigade. (Leyla Sanai The Lancet 2006-05-20)[Wood's] book is an excellent summary of the state of knowledge and research on how fat metabolism is regulated. Although intended primarily for the health care professional, it's lucid enough to be read with profit by an interested layperson...It's well-worth buying and reading carefully if only to be on guard against the charlatans of the obesity industry. (Rony V. Diaz Manila Times 2006-07-23)This timely book raises many key issues in the field of obesity and lipid metabolism and will be useful to supplement courses for medical and graduate students. A strength of the book is that it connects the basic biochemistry and molecular biology of lipid metabolism to the clinical situation...The book will be a good catalyst for generating discussions of the controversial issues in the field. It also provides the reader with an understanding of the breadth of new knowledge that will be necessary in order to attack the obesity epidemic. (Susan K. Fried Journal of Clinical Investigation)In How Fat Works, Philip A. Wood draws on his extensive knowledge of fatty acid metabolism to give an admirable insight into how

genes, diet and exercise impact on fatty acid oxidation and synthesis, and how these processes affect us. Wood has conducted most of his own research using gene knockout models in mice: he begins with a concise summary of what we have learnt about fat metabolism by using this method, and by studying genetic disorders of obesity...Even when describing difficult biological concepts, Wood retains a lightness of touch and uses creative analogies...This is a fascinating and ambitious book, well divided into manageable chunks. It deals with an exciting and dynamic area, and it includes much cutting-edge research...The outstanding strength of this book is undoubtedly Wood's ability to describe complex metabolic processes in readable English. It will therefore be enjoyed by students, health professionals, scientists, and lay readers--all of whom may now think just a little harder before choosing what, and how much, to eat for lunch. (Susan Carnell Times Higher Education Supplement 2006-12-08)Although the target audience is primarily American medical and nursing graduate students, any one interested in the general topic of nutrition would find something of relevance...Altogether, well worth reading; you might even pick up some advice to improve your own health! (Ian Lancaster Biologist 2008-05-01) As the Surgeon General and FDA launch new campaigns against what they now consider the second most pressing public health concern after tobacco, Philip Wood provides a timely review of obesity and lipid disorders. Written for the educated layperson, medical student, clinician, or researcher, this book provides the reader with an excellent appreciation of the scientific background of fat and obesity. The authoritative science is presented in English that is easy to understand, providing a good deal of reputable information in a mostly non-technical format. (Clifford Lo, M.D., Ph.D., Departments of Pediatrics and Nutrition, Harvard Medical School and Harvard School of Public Health)About the AuthorPhilip A. Wood is Professor, Burnham Institute for Medical Research at Lake Nona.