The Dorito Effect: The Surprising New Truth About Food and Flavor

Mark Schatzker
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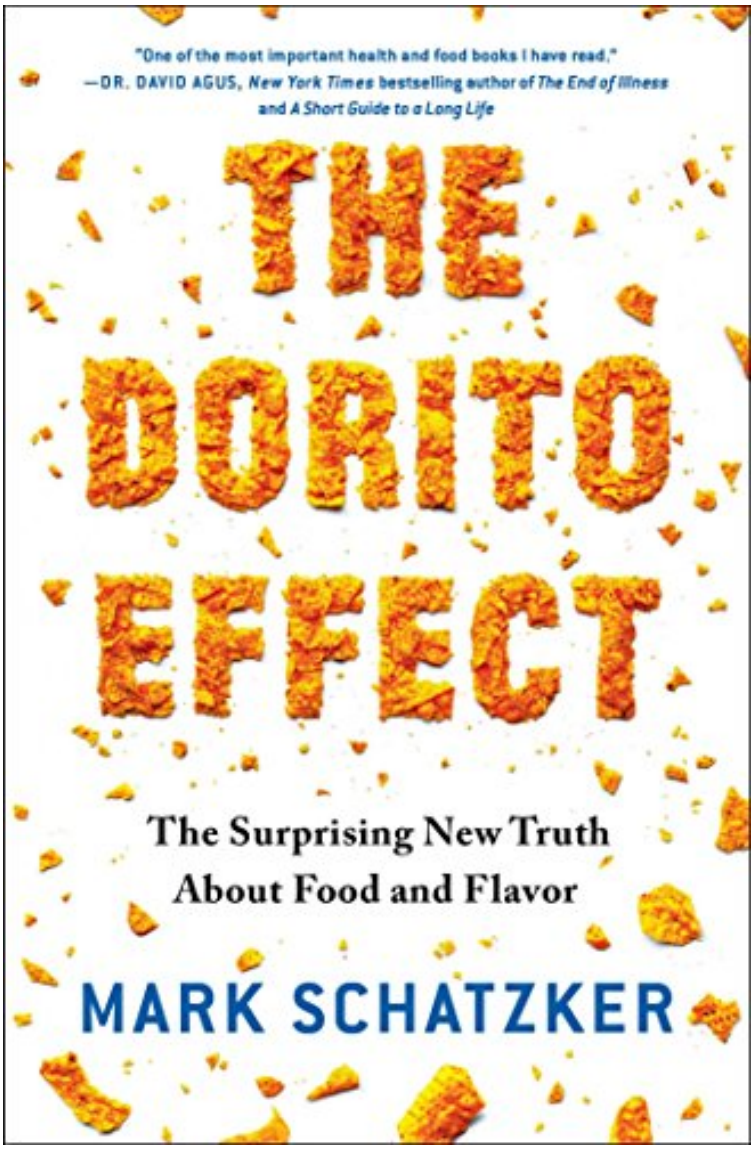

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Mark Schatzker : The Dorito Effect: The Surprising New Truth About Food and Flavor before purchasing it in order to gage whether or not it would be worth my time, and all praised The Dorito Effect: The Surprising New Truth About Food and Flavor:

76 of 79 people found the following review helpful. As a physician this will help me explain to my patient's why they have problems with their appetite and why appetite so often faBy JSMIncredible new insights into how we interact with food. As a physician this will help me explain to my patient's why they have problems with their appetite and

why appetite so often fails to guide them to good food choices. This book helps us to understand the importance of the flavor of food and how it is natures way of "labeling" what we eat. The addition of flavorings to processed food is a form of false labeling. When there is a disconnect between flavor and nutrition we have metabolic "vertigo". The information from our senses does not correlate with the nutrients that we are absorbing and a subconscious confusion results. We keep on eating and eating and as a result developed the manifestations of metabolic syndrome.This will definitely clarify the way we think about food.50 of 51 people found the following review helpful. how the change in our food happened and the resultsBy She Treads SoftlyThe Dorito Effect by Mark Schatzker is a very highly recommended, well researched account that addresses the cause of the health crisis today as being a direct result of what we have done to our food.In an effort to increase size, and production, we have taken the natural flavor out of food. Our bodies naturally crave flavors that the current food isn't providing so we eat more trying to fill the flavor void we're missing. Focusing on mainly chicken and tomatoes, Schatsker does an excellent job tracing how the change in our food happened and the results. There is a complex relationship between flavor and nutrition in food and we have diluted the flavor to increase size and production. Chicken today doesn't taste anything like the chicken of the past. Tomatoes today are mostly water. "The rise in obesity is the predictable result of the rise in manufactured deliciousness. Everything we add to food just makes us want it more." Schatzker points out that the big food companies have "created the snack equivalent of crystal meth and gotten us all hooked." Not only is more and more manufactured flavor being added to things, the availability of the food with enhanced flavors is more available."The Dorito Effect, very simply, is what happens when food gets blander and flavor technology gets better. This book is about how and why that took place. It's also about the consequences, which include obesity and metabolic disturbance along with a cultural love-hate obsession with food. This book argues that we need to begin understanding food through the same lens by which it is experienced: how it tastes. The food crisis we're spending so much time and money on might be better thought of as a large-scale flavor disorder. Our problem isn't calories and what our bodies do with them. Our problem is that we want to eat the wrong food. The longer we ignore flavor, the longer we are bound to be victims of it. This book is also about the solution. The Dorito Effect can be reversed. That's already happening on small farms and in pioneering science labs."Schatzker notes the words to look for on your food that indicate the presence of chemicals that fool your nose and chemicals that fool your tongue. "The following words indicate the presence of chemicals that fool your nose: natural flavor(s) natural flavoring(s) artificial flavor(s) flavoring, flavor. The following words indicate the presence of chemicals that fool your tongue: monosodium glutamate MSG disodium guanlyate disodium inosinate torula yeast yeast extract hydrolyzed protein autolyzed yeast saccharin (Sweet Twin, Sweet N Low, Necta Sweet) aspartame (NutraSweet, Equal, Sugar Twin) acesulfame potassium (Ace-K, Sunett, Sweet One) sucralose (Splenda) neotame (Newtame) advantame stevia."I have been talking about this book the whole time to anyone who will listen. Schatzker does and exceptional job presenting the information and scientific research in an entertaining, accessible, and informative manner. In The Dorito Effect he divides the book into three parts: He tells us what the Dorito effect is, the importance of flavor, and the cure for the Dorito effect. As is my wont, I was thrilled to see a bibliography, notes and index.Disclosure: My Kindle edition was courtesy of Simon Schuster for review purposes.1 of 1 people found the following review helpful. A critically relevant piece of work.By Dirk MousAn important, well researched message to all of us in the "Western World" about the risks to ourselves posed by the manipulation of foodstuffs to fool us / our brains into thinking we're eating something of nutritional value equivalent to what our appetites would suggest is contained in foods with remarkable flavors. Can we humans withstand the industrial manipulation of our diets for profit at the expense of nutritional content?

A lively argument from an award-winning journalist proving that the key to reversing Americarsquo;s health crisis lies in the overlooked link between nutrition and flavor: ldquo;The Dorito Effect is one of the most important health and food books I have readrdquo; (Dr. David B. Agus, New York Times bestselling author).We are in the grip of a food crisis. Obesity has become a leading cause of preventable death, after only smoking. For nearly half a century wersquo;ve been trying to pin the blame somewheremdash;fat, carbs, sugar, wheat, high-fructose corn syrup. But that search has been in vain, because the food problem thatrsquo;s killing us is not a nutrient problem. Itrsquo;s a behavioral problem, and itrsquo;s caused by the changing flavor of the food we eat. Ever since the 1940s, with the rise of industrialized food production, we have been gradually leeching the taste out of what we grow. Simultaneously, we have taken great leaps forward in technology, creating a flavor industry, worth billions annually, in an attempt to put back the tastes wersquo;ve engineered out of our food. The result is a national cuisine that increasingly resembles the paragon of flavor manipulation: Doritos. As foodmdash;all foodmdash;becomes increasingly bland, we dress it up with calories and flavor chemicals to make it delicious again. We have rewired our palates and our brains, and the results are making us sick and killing us. With in-depth historical and scientific research, The Dorito Effect casts the food crisis in a fascinating new light, weaving an enthralling tale of how we got to this point and where we are headed. Wersquo;ve been telling ourselves that our addiction to flavor is the problem, but it is actually the solution. We are on the cusp of a new revolution in agriculture that will allow us to eat healthier and live longer by enjoying flavor the way nature intended.

"Illuminating and radical." (The New York Times Book)ldquo;Mark Schatzkerrsquo;s book comes at a time when healthful eating and sustainability are increasingly on everyonersquo;s minds. The Dorito Effect is a quick, engaging read that examines the essential role that flavor plays in the way we eat today. As a chef, I know that people want to eat delicious food, but Schatzker goes further and investigates how we engage with flavor to address the growing health crisis.rdquo; (Daniel Boulud, Chef/Owner, The Dinex Group)ldquo;Mark Schatzker has done something monumental in The Dorito Effect, he explained how the American food industry has interfered with our body's conversation with itself. The use of flavor to change this conversation is one of the major reasons for the decline in the American diet leading to major health issues. The Dorito Effect is one of the most important health and food books I have read.rdquo; (David B. Agus, M.D., author of The End of Illness and A Short Guide to a Long Life)ldquo;In The Dorito Effect Mark Schatzker explores a novel - and to my mind, key ndash; theory to explain our increasing consumption of the low-quality food that is undermining health. Modern food production has made much of what we eat flavorless, and a multibillion dollar flavor industry has stepped in to fool our senses, leaving us unsatisfied and craving more and more. I strongly agree with his advice to go back to eating real food.rdquo; (Dr. Andrew Weil, M.D. New York Times bestselling author of Healthy Aging)"I don't know when this much science has been this fun to read. Brilliant." (Joel Salatin, author of Folks, This Ain't Normal and farmer at Polyface Farm)"After decades of conflict over sugar, carbs and fat, this extremely well researched book journeys to the heart of the food problemmdash;flavormdash;and delivers the perfect solution." (Dr. Richard Bazinet, Department of Nutritional Sciences, University of Toronto)"If you want to understand why the future of healthy eating is delicious eating, read this book." (Howard Moskowitz, inventor of Prego Extra Chunky Spaghetti Sauce and food industry legend)ldquo;Mark Schatzker knows food. He is dedicated to quality and is always looking for the best ingredients. This is an important book that tells us why good food is so essential for everyone.rdquo; (Bonnie Stern, bestselling author of HeartSmart Cooking for Family and Friends)"A sobering account of humanityrsquo;s attempt to overcome modern food blandness with flavor compounds, at the expense of nutritional integrity. Schatzker's engaging chronicle of how naturally occurring food flavor is as an evolutionary tuned sensory marker of nutritional value is bound to give consumers and scientists a new perspective on judging food quality and health effects." (Dr. Ameer Taha, Department of Food Science and Technology, UC Davis)"This book is important, possibly life altering for anyone who eats!! In The Dorito Effect, Schatzker gets to the heart of where our relationship with food has gone wrong. Through lively storytelling and proficiency he points out the many issues we are facing and that the solution is right in front of us." (Jonathan Gushue, Principal, Gushue Hospitality Inc.)ldquo;Entertaining storytellinghellip; After reading this engaging book, readers may wonder with every bite of food if what they are tasting is real.rdquo; (Kirkus s)"Schatzker dishesup a 5 star serving!rdquo; (The Washington Post)About the AuthorMark Schatzker is an award-winning writer based in Toronto. He is a radio columnist for the Canadian Broadcast Corporation and a frequent contributor to the Globe and Mail, Condeacute; Nast Traveler, and Bloomberg Pursuits. He is the author of The Dorito Effect: The Surprising New Truth About Food and Flavor and Steak: One Manrsquo;s Search for the Worldrsquo;s Tastiest Piece of Beef.Excerpt. copy; Reprinted by permission. All rights reserved.The Dorito Effect ONE ldquo;Thingsrdquo; and ldquo;Flavorsrdquo; IN THE early autumn of 1961, a thirty-seven-year-old housewife and mother named Jean Nidetch was pushing a shopping cart through a Long Island supermarket when she bumped into a woman she knew. ldquo;You look so marvelous,rdquo; her friend said, and for a sweet moment Nidetch basked in the compliment. Unfortunately, her friend kept talking. ldquo;When are you due?rdquo; Nidetch was not pregnant. At the time, she stood five seven and weighed 214 pounds, which marked her, in todayrsquo;s parlance, as obese, although Nidetch didnrsquo;t know what that word meant, or that the obese were, at that very moment, coalescing into a demographic ripple that was on its way to becoming a wave. Nidetch had been to see diet doctors in New York. When their advice didnrsquo;t work, she headed across the Hudson River to New Jersey, where the diet doctors proved to be just as useless. She had tried every diet there was, and every one of them worked: She always lost weight. But then she would gain it all backmdash;and more. Jean Nidetch could stop eating, just not for very long. She loved food too much. She loved savory things like pizza and meat, and sweet things, too, like cupcakes and soft drinks. Nidetch wasnrsquo;t one for big breakfasts, but that was because she would get up at three in the morning to gorge on cold pork chops or baked beans right out of the fridge. In summer, if an ice cream, pizza, or sandwich truck zoomed by without stopping, she would take off after it. And when visions of jelly beans began dancing in her head, she would rifle through her sonrsquo;s pockets looking for some. But what Nidetch especially loved were cookies. When she started eating them, she couldnrsquo;t stop. She was addicted to them. The day Nidetch was mistaken for pregnant, she phoned the New York City Department of Healthrsquo;s obesity clinic to make an appointment. Not long after, she found herself in a room full of similarly overweight women. An instructor walked in who was so ldquo;slenderrdquo; that Nidetch decided right there on the spot that after the class she was going to have an ice cream soda. The instructor handed out a sheet of paper with a list of foods the women were allowed to eat. Nidetch saw nothing new. She had whole albums filled with similar diets at home, none of which shersquo;d ever been able to follow for very long. But once again, Nidetch tried. She gave up pizza, cake, and ice cream and started eating vegetables and fish. Every week, she went back to the obesity clinic, and every week she lost weightmdash;two pounds. It was progress, to Nidetch at least. The

slender, ice-cream-soda-inducing instructor thought differently. She looked at Nidetch and said, ldquo;What are you doing wrong?rdquo; And as gallingly insensitive, perhaps even abusive, as that might sound, the instructor was right. The truth is Nidetch wasnrsquo;t following orders, at least not completely. It was the cookies. She was feeding on them in secret. On the way to the clinic, she would sit there on the subway, constructing lies to explain her lack of weight loss, lies that got more and more elaborate with each passing weekmdash;Irsquo;m constipated, Irsquo;m retaining water, Irsquo;m premenstrual. By the tenth week, the shame had gotten so bad that she couldnrsquo;t even look at the instructor. Nidetch couldnrsquo;t bear it any longer. She had to get her cookie secret off her chest, so she phoned six fat friends and invited them to her home and confessed. Her friends were supportive. She had a ldquo;rightrdquo; to eat those cookies, they said. They did stuff like that all the time. One friend hid chocolate chip cookies in the cupboard behind dishes. Another hid snacks behind cans of asparagus where no one would see them. All of them confessed that they, too, got up in the middle of the night to eat. Toward the end of the meeting, something seemingly insignificant happened that would change the course of Nidetchrsquo;s life. One of her guests said, ldquo;Jean, can we come back next week?rdquo; The next week, they brought three more fat friends. The week after that, four additional fat friends joined them. If this sounds to you like the beginnings of a true-life fairy tale of one woman fighting the odds to attain personal beauty, celebrity, and vast wealth, yoursquo;re right. Within two months, the weekly meeting had swelled to forty women. A year after the ldquo;When are you due?rdquo; question, Nidetch was down to 142 pounds. One night, after one of her increasingly popular meetings, a businessman whorsquo;d lost 40 pounds thanks to Nidetch suggested she turn her ldquo;little projectrdquo; into what it so clearly deserved to bemdash;a business. She did. Within five years, 297 classes were being held in New York City alone, and there were 25 franchises in 16 states. In 1978, H. J. Heinz, the company that makes the famous ketchup, bought her business for $72 million, making Jean Nidetch the Horatio Alger of weight loss. Yoursquo;ve probably heard of it. You may have even heard this near-mythical story before. Jean Nidetch named her company Weight Watchers. NIDETCHrsquo;S SOLUTION to weight loss lay in collective willpower. Weight Watchers wasnrsquo;t the first diet to push this method. Overeaters Anonymous, which is also based on group support, was founded three years earlier, in 1960. Group support was just one way people could lose weight. The year after Weight Watchers launched, a high-living photographer put the opposite spin on dieting with The Drinking Manrsquo;s Diet: How to Lose Weight with a Minimum of Willpower, which sold more than two million copies. It was joined that same year by another liquid solution to trimming down: Diet Pepsi. A few years later, a British biochemist introduced the Cambridge Diet, a tough-love, low-calorie regimen designed to promote fat burning and shed pounds fast. The pace of diets and dieting was starting to pick up in the 1960s. People were getting fatter. According to the Centers for Disease Control, in the early 1960s, just 13.4 percent of adult Americans qualified as obese. A decade later, the percentage had ticked up more than a full point to 14.5 percent. (The increase during this period is even greater when obesity is measured by skin fold rather than the more simple body mass index calculation.) Obesity really got rolling, however, in the rsquo;80s, and by the late rsquo;90s, more than 30 percent of American adults were obese, more than double the early rsquo;60s tally. All that dieting, in other words, didnrsquo;t work. Despite Jean Nidetchrsquo;s life-changing insight, and the true-life miracles behind every weight-loss regime since, we continue, year after year, to gain weight. In Jean Nidetchrsquo;s day, obesity was a relatively rare condition. Now itrsquo;s common. Today, obesity is holding at 35 percent, nearly triple what it used to be. By the mid-2000s, the 1961 Jean Nidetch, with a BMI of 33.5mdash;squarely in the midrange of ldquo;obeserdquo;mdash;would have looked almost normal. Today there is extreme obesity, which hardly existed in the early rsquo;60s. Back then, just a tiny slice of Americans met this qualificationmdash;0.9 percent. The ldquo;pregnantrdquo; Nidetch was herself forty-one pounds shy of that mark. Today itrsquo;s at 6.4 percent. To put this in perspective, at a sold-out Pirates-Yankees World Series game in 1960, there would have been around six hundred fans in Yankee Stadium of a girth that verged on shocking. Today, there would be close to forty-five hundred, and no one is shocked by it. In the early rsquo;60s, well over half of Americans were ldquo;slenderrdquo; and of the nonslender, the vast majority was classified as ldquo;overweightrdquo;mdash;they needed to lose a few pounds. It is now abnormal to be slender. Today, less than a third of Americans are slender, which is another way of saying more than two-thirds are either overweight or obese. Ninety million Americansmdash;the populations of greater LA, New York, and Chicago multiplied by 2mdash;now eat so much they are at increased risk of asthma, cancer, heart attack or stroke, reduced fertility, giving birth prematurely, high blood pressure, sleep apnea, liver disease, gallbladder disease, diabetes, and arthritis. The obese make less money (particularly obese women), have higher medical expenses and lower self-esteem, and are more likely to suffer from depression. After smoking, obesity is the leading cause of preventable death. And when it comes to morbiditymdash;ldquo;a diseased state or symptomrdquo;mdash;obesity is surging past smoking, drinking, and poverty. Obesity is so rampant that it seems contagious. Itrsquo;s an epidemic now, and itrsquo;s spreading to other countriesmdash;the British are gaining, the Chinese are gaining, even the French are gainingmdash;which makes it a pandemic. There are frantic efforts to make it stop. Weight Watchers and Overeaters Anonymous were just early tactics in a long war that would go on to include the Pritikin Principle, the Scarsdale Medical Diet, Slimfast, the Atkins Diet, the South Beach Diet, The Zone, Nutrisystem, Jenny Craig, the Blood Type Diet, the Mediterranean Diet, the Master Cleanse, the DASH diet, the Cabbage Soup Diet, the Paleo Diet,

and the Raw Diet. Americans have eaten fat-burning grapefruits, consumed cabbage soup for seven straight days, calculated their daily points target, followed the easy and customizable menu plan, dialed the 1-800 number to speak to a live weight-loss counselor, taken cider vinegar pills, snacked strategically, eliminated high-glycemic vegetables during the fourteen-day induction phase, achieved a 40:30:30 calorie ratio, brought insulin and glucagon into balance, sought scientific guidance from celebrities, abstained from the deadly cultural practice known as cooking, tanned and then bled themselves to more fully mimic the caveman state, asked that the chef please prepare the omelet with no yolks, and attained the fat-burning metabolic nirvana known as ketosis. It has all been a terrible, amazing failure. The average American man has gained twenty-nine pounds and the average woman twenty-six. Between 1989 and 2012, according to the market report ldquo;The U.S. Weight Loss Diet Control Market,rdquo; Americans collectively spent more than $1 trillion on weight loss. In that same period of time, obesity grew by more than 50 percent and extreme obesity doubled. The long battle against weight gain hasnrsquo;t been much of a battlemdash;more like trying to put out a forest fire with a garden hose. What a strange problem. Despite living in a culture that prizes thinness above even wealth, we keep on eating. Itrsquo;s as though wersquo;ve created a new ldquo;diet-resistantrdquo; form of obesity that, like some kind of cancer, perpetuates itself at the expense of our own vitality. Kindergarten children now struggle with their weight. Fully one-third of boys and girls from six to nineteen years of age are overweight or obese. And obesity is just the most visible manifestation of a deeper malaise. Food has become a life-threatening indulgence. It seems to be disrupting the very way our bodies runmdash;straining our organs, distressing our bowels, and crashing our mood. Adult-onset diabetes had to change its name to type 2 diabetes because so many children are now being diagnosed with what was formerly considered a metabolic disease of grown-ups. Once upon a time, we ate to sustain ourselves. Now food itself is toxic. What happened? SUGAR. Thatrsquo;s the latest answer, anyway. As I write these words, sugarmdash;or ldquo;white death,rdquo; as some have taken to calling itmdash;is igniting flares of panic and condemnation. A year or two ago, a panic over high-fructose corn syrup came through like a flash flood and then died down to a trickle. Saturated fat, which used to be deadly, is enjoying a renaissance while polyunsaturated fat, which at one time was seen as the antidote to saturated fat, is now under attack. Before fat it was carbs and before carbs it was fat, and if you go back far enough sugar pops up again. For the better part of a century, millions of people, almost all of them with a rudimentary or nonexistent understanding of biochemistry, have been taking part in a richly technical conversation about such phenomena as glycemic load, protein ratios, and serum triglycerides. Part of the problem is human nature. We are all natural reductionists. We always want to find the single cause of this or that problem, because then itrsquo;s easy to come up with a silver-bullet solution. That sort of thinking works very well when it comes to car troublemdash;your alternator is fried, your air filter is clogged, your timing belt is worn out. (If itrsquo;s all three, itrsquo;s time for the scrap heap.) But it doesnrsquo;t work very well with nutrition, which is about a lot of things. The list of essential vitamins, fats, and amino acids includes twenty-four different substances. And that doesnrsquo;t include minerals, trace minerals, fiber, choline, or the very fuel of life: energy. But even when you add those to the list, along with starch in all its amazing forms and the micro-universe of fats, you still havenrsquo;t come anywhere close to describing the radiant complexity of the plant and animal matter that goes into our mouths, our stomachs and intestines, and eventually becomes part of our bodies. Thatrsquo;s the other problem. Food is complicated. And when a species that delights in one-word answers faces a problem as complex but crucial as food, the result is not surprising: a decades-long kangaroo court in which we keep putting the latest evil nutrient on trial. The truth is, it would all be so much simpler if it really were just sugarrsquo;s fault. But clearly, somethingmdash;or thingsmdash;did change. Herersquo;s one thing that definitely did not change: our genes. This is not evolution. There was no cataclysmic eventmdash;no meteor, no supervirus that wafted out of some secret government labmdash;that conferred a reproductive advantage to those inclined to obesity. Similarly, there has been no demographic influx of genetically obese immigrants who fundamentally changed the population. Make no mistake, there are genetic aspects that determine each individualrsquo;s propensity to obesitymdash;I might be more susceptible to putting on weight than you because of traits I inherited from my parents. But as a group, we all have pretty much the same genes as we had in the 1960s. And that can mean only one thing: Something in the world around us has changed. When you stop to think about it, the human body faces the same doozy of a problem as the nutritionists. It has complex needs. And it fulfills those needs with a very complex substance: food. How does it do that? How does a body know what it wants? That, it turns out, is the part wersquo;ve been messing withmdash;the want part. Sugar has something to do with want, and so do high-fructose corn syrup, fat, carbs, and all those other nutrients wersquo;ve been obsessing over. But the cause of the food problem will not be found in individual nutrients. We keep mistaking the mechanism of obesity for the cause. If we regarded smoking the same flawed way we understand food, we would say cigarettes are deadly because they cause cancer. Cancer is the how of tobacco-related mortality. The reason people smoke in the first placemdash;the whymdash;is that tobacco is addictive. People smoke because they experience a powerful desire to smoke. Jean Nidetchrsquo;s problem, similarly, was behavioral. It wasnrsquo;t that her body turned all the food she ate into fat, or that perhaps it was exquisitely efficient in turning refined carbs into fat. Thatrsquo;s what bodies do. Her problem was that she ate too much food. She wanted to eat. She could not resist the desire. And when it comes to wanting, food speaks its own special language: flavor. Flavor, as we will see, is the aspect of the human environment

that has changed. The food we eat today still seems like food, but it tastes very different than it used to. For the better part of a century, two complimentary trends have conspired to transform the flavor of what we eat. These two trends were already ascendant when Jean Nidetch was mistaken for pregnant in that Long Island supermarket. And within a year, they would unite in a Dallas suburb with the momentous utterance of a single word: ldquo;taco.rdquo; This is where our story begins. IN THE SUMMER of 1962, the vice president of marketing at Frito-Lay took his wife and three kids on a trip to Southern California. It was, on the surface, a family vacation. The five of them piled into Dadrsquo;s gold Lincoln Continental for the long trip from Dallas to Orange County, stopping along the way at Carlsbad Caverns and the rim of the Grand Canyon. From the very beginning, however, the trip portended big things about flavor. Before getting hired by Frito-Lay, Arch West had been a Madison Avenue ad man, where hersquo;d headed up the Kraft account and worked on Jell-O puddings. In Corona del Mar, the West family stayed at a house belonging to Lawrence Frank, the inventor of Lawryrsquo;s seasoned salt. And one afternoon, after the family had just dined at a restaurant called the Five Crownsmdash;West liked the prime rib and fancy creamed spinachmdash;a stranger walked up and complimented his daughterrsquo;s golden blond hair. The man asked the Wests if theyrsquo;d ever eaten at his restaurant, but theyrsquo;d never heard of it, even though in just two years the 500th location would open in Toledo, Ohio. The man was Ray Kroc and his restaurant was McDonaldrsquo;s. The most important meal of that trip, however, didnrsquo;t take place at the Five Crowns, or at the restaurant that would go on to become the worldrsquo;s largest chain of hamburger fast-food restaurants. It was served at a little Mexican ldquo;shackrdquo; West spotted by the side of the highway somewhere between L.A. and San Diego, where he pulled over and ordered a small container of tortilla chips. It was likely the crunch that got him. Besides shape, crunch is the only aspect in which tortilla chips are meaningfully different from a snack West was already in charge of marketing, Fritos. Both are fried pieces of cornmeal. Tortilla chips, however, are baked first, which makes them crunchier. Arch West was struck by an idea: Tortilla chips just might be Frito-Layrsquo;s next big thing. Back at company headquarters in Dallas, West presented his great new idea to his fellow executives. The response was something like the sound a vacuum cleaner makes when itrsquo;s unplugged. Why would Americans want Mexican ldquo;tortillardquo; chips, his colleagues wondered, when they already had perfectly good corn chips? They werenrsquo;t even interested in trying one. Their instructions were clear: Do not pursue tortilla chips. West knew better. He was so confident about the future of tortilla chips that he secretly funneled discretionary funds to an off-site facility to develop the tortilla chip concept. He pitched his idea again. This time, though, he handed out samples. He had a plan: They werenrsquo;t tortilla chips anymore. Now they had their very own Mexican name, one that meant little pieces of gold: ldquo;Doritos.rdquo; West got the green light. The rest, however, is not history. The Doritos people all over the world know and love, and gobble four at a time, almost never happened. The Doritos Arch West used to seduce his fellow executives, and that would hit store shelves in 1964, were exactly like the ones West tasted back in California, just salted tortilla chipsmdash;ldquo;toasted corn tasterdquo; is how they were billed on the packaging. They sold decently in the Southwest, where people knew that the pointy tip was well suited to scooping up globs of dip. (The early packaging even featured an illustration of a hand dipping a Dorito in dip.) But the rest of the country didnrsquo;t know what to make of them. Doritos sounded Mexican, but they didnrsquo;t taste Mexican. This was a problem. Archibald C. West once again found himself facing his fellow executives over his catchy new snackmdash;a snack he wasnrsquo;t even supposed to developmdash;that wasnrsquo;t catching on. West didnrsquo;t give up. Instead, he uttered the word that changed everything. Make Doritos, he said, taste like a ldquo;taco.rdquo; The Frito-Lay executives sneered. As his son Jack West recounts, they chided the fancy New York pitchman for ldquo;not knowing the difference between a lsquo;thingrsquo; and a lsquo;flavor.rsquo;thinsp;rdquo; But West was one step ahead of them. Perhaps because of his friendship with the Lawryrsquo;s seasoning mogul, West already knew that the line between things and flavors could be blurred, that technology existed that could impose the flavor of a taco on a fried triangle of corn. ldquo;Of course, you and I know that,rdquo; he fired back, ldquo;but the rest of the country north of here sure doesnrsquo;t. And thatrsquo;s our market.rdquo; And what a market. The Northeast, the Northwest, the South, the Southwestmdash;everyone loved taco-flavored Doritos. They loved them so much that four years later, Frito-Lay blurred the line between thing and flavor once again, this time with Doritos that tasted like nacho cheese. In 1986, Cool Ranchmdash;a tortilla chip flavored like salad dressingmdash;was born. By 2010, the chip beloved by everyone from toddlers and teenagers to stoners and the infirm was earning Frito-Lay $5 billion a year. There are, at present, fourteen flavors of Doritos in the United States, including Salsa Verde and Spicy Sweet Chili. Every day around the world, fingers numbering in the tens of millions become coated in sticky orange seasoning. Every second, untold trillions of neurons are fired by that irresistible combination of salt, fat, and flavor while the people attached to those fingers experience the irresistible desire to put their hand back in the bag for more. ldquo;One good crunch,rdquo; as the 1968 package copy trumpeted, ldquo;leads to anothernbsp;.nbsp;.nbsp;. and another.rdquo; ldquo;Taco.rdquo; A THING, of course, is different from a flavor. Different things have their own different flavors. Oranges taste like oranges. Bananas taste like bananas. Tacos taste like tacos, and corn chips taste like corn chips. That, at least, is how the world worked back when there were still families whorsquo;d never heard of McDonaldrsquo;s. Years before West arrived at Frito-Lay, the company launched ldquo;barbecuerdquo;-flavored potato chips, a breakthrough that made it possible to give fried slices of potato some of

the same smoky, sweet notes as meat cooked slowly over hardwood. People who ate barbecue chips liked washing them down with soft drinks that tasted like oranges, grapes, or lemons, even though these foods contained none of these ldquo;things.rdquo; By the early 1960s, however, flavor technology had taken a great leap forward. The science was now so good it was possible not just to blur these lines but to utterly distort them. And thatrsquo;s what West did. He gave a simple fried piece of corn the tang and savory depth of a Mexican meal. ldquo;Things,rdquo; meanwhile, were also changing. Fruits, grains, meat, and vegetables were themselves losing flavor. The corn Frito-Lay used to make Fritos in the 1960s looked just like the corn Elmer Doolin used when he founded the Frito Company back in 1932. But it didnrsquo;t taste the same, because by 1967 an American corn farm was growing nearly three times as much corn as it had thirty years earlier. There was more corn, but it tasted weaker, like a lesser version of itself. Corn was getting bland. So were potatoes. The same year Elmer Doolin started making Fritos, Herman W. Lay got into the potato chip business. Back then, a typical American potato farmer produced about sixty-three sacks of potatoes for every acre. By the mid-1960s, it was up to two hundred sacks. And just like corn, the potatoes in those sacks didnrsquo;t taste as ldquo;potatoey.rdquo; That problem could be solved. The gathering void of blandness was filled by industry. Using the most sophisticated analytical technology of the era, scientists isolated the mysterious chemicals that humans experience as flavor, and the companies they worked for began manufacturing them and selling them to food companies, which added them to their products. You can see those chemicals right there on a 1968 package of taco Doritos represented by a single, exceptionally vague word: ldquo;Flavorings.rdquo; Westrsquo;s genius was one of vision. He stood firmly astride two wavesmdash;food getting blander and flavoring getting bettermdash;and married them. He showed how extraordinarily potent flavor technology had become. Taco Doritos tasted better than salted Doritos. And, unlike actual tacos, they didnrsquo;t spoil, they were never overdone, they always tasted the same, they didnrsquo;t need to be cooked, and they were cheap. A 13/4-ounce bag of original Taco Doritos sold for 15cent;. The Dorito didnrsquo;t just predict the future of tortilla chips. It didnrsquo;t just predict the future of snack food, either. It predicted the future of all food. Nothing tastes like what it is anymore. Everything tastes like what we want it to taste like. As food gets blander, we crank out zestiness by the hundreds of tons to make up for it. Most people recognize this as junk food. But itrsquo;s happening to food served at restaurants and the food people buy at the supermarket and cook, from scratch, at home. Itrsquo;s happening to blueberries, chicken breast, broccoli, and lettuce, even fennel. Everything is getting blander and simultaneously more seasoned. Everything is becoming like a Dorito. The birth of Doritos was a watershed moment. Flavor wasnrsquo;t up to Mother Nature anymore. Now it was in the hands of the folks in marketing. FOR ALL its technicality, the food conversation has been strangely silent on the topic of flavor. Back in Arch Westrsquo;s day, no one thought ingredients like torula yeast, flavorings, or MSG were particularly dangerous, and that thinking hasnrsquo;t changed much today. Theyrsquo;re noncaloric, for one thing. You could never get fat on a diet of these chemicals. They donrsquo;t cause cancer or debilitating brain disease, either. (Not directly, at least.) Is there even any point in scrutinizing pleasure? Hedonism, as any puritan can tell you, never leads to virtue. If we could all set pleasure aside and eat whatrsquo;s good for us, our problems would all go away. (Good luck with that.) Letrsquo;s not be too quick to lay all the blame on a 1960s snack food executive. The man who invented Doritos was a World War II veteran and churchgoing family man who was raised in a Masonic home and once got injured while volunteering for disaster relief when his car was hit by a tanker truck. Arch West, furthermore, understood something the field of nutrition and the $60 billion weight-loss industry have only recently showed the faintest glimmer of grasping: Flavor matters. Eating isnrsquo;t a rational act of nutrient acquisition. Eating has as much to do with nutrients as sex does with procreationmdash;we do it because it feels good to do it. We might pretend wersquo;re interested in vitamins, fish oil, and ketosis, but itrsquo;s flavor wersquo;re after. We think in flavor, we dream about flavor, and we get up out of our chair when the bases are loaded in the bottom of the ninth to get it. We eat for one reason: because we love the way food tastes. Flavor is the original craving. This is not because we are lazy or weak. Itrsquo;s by design. If you think of the human genome as an instruction manual with each bodily system having its own chapter, you will discover something quite unexpected. The thickest chapter is the one on flavor. Our ability to sense and enjoy food is no accident. Not only are we expert flavor sensors, but the flavors we sense have a firm grip on our minds. They drive our behaviors and control our moods. If music is emotion expressed in the medium of sound, flavor is emotion expressed in the medium of food. We are, if you like, playing with our own minds. And our game has gotten a lot better since Arch Westrsquo;s taco moment. Taco Doritos listed eleven ingredients. The much more recent Jacked Ranch Dipped Hot Wings Doritosmdash;a tortilla chip that tastes like chicken wings dipped in hot sauce and then dipped in salad dressingmdash;lists thirty-four. So imagine for a moment an alternate world in which everyone is wearing flavor goggles. When they bite into foods that taste like tacos, cherries, grapes, or oranges, their brains think they are actually eating tacos, cherries, grapes, or oranges. But what they are actually tasting are flavor chemicals. Thatrsquo;s the world you live in. You may not think so. You may believe you possess the kind of sophisticated palate that can easily spot the difference between a real taco and a taco-flavored tortilla chip, or between a real grape and a grape-flavored beverage. Your flavor-sensing system, however, is being fooled. And the proof is in the fact that youmdash;we, all of usmdash;like these flavors. We liked taco-flavored Doritos more than plain ones, even though we know theyrsquo;re not really tacos. We like Coke, 7Up, and ginger ale more than plain old sugar

water. And we like the flavor chemicals we didnrsquo;t even know are being added to apparently wholesome foods, like raw beef, butter, soy milk, yogurt, and tea. The deception is so elegant as to be invisible. We are all wearing flavor goggles. There are consequences. Bland, synthetically flavored food is not the same as naturally flavorful food. On the most basic level, when real foods like tomatoes, strawberries, and chicken taste bland, we make them palatable the only way we know how, by pouring ranch dressing over watery tomatoes, ladling dollops of whipped cream over strawberries, and blitzing chicken in flavoring and then dunking it in the deep fryer. We do what Arch West did to plain old tortilla chips to get people to eat more of them. It gets worse. Nature endowed us with our most sophisticated bodily system because it performed the bodyrsquo;s most essential task: getting important nutrients. By manipulating our richest and most direct source of pleasure, we have warped our relationship with the fuel our bodies require, food. Evolution may have given us an amazingly complex flavor-sensing apparatus, but it wasnrsquo;t made for a world of cheap calories and egregious flavor lies. We have taken a system designed to bring our bodies to a state of nutritional completion and turned it against us. The Dorito Effect, very simply, is what happens when food gets blander and flavor technology gets better. This book is about how and why that took place. Itrsquo;s also about the consequences, which include obesity and metabolic disturbance along with a cultural love-hate obsession with food. This book argues that we need to begin understanding food through the same lens by which it is experienced: how it tastes. The food crisis wersquo;re spending so much time and money on might be better thought of as a large-scale flavor disorder. Our problem isnrsquo;t calories and what our bodies do with them. Our problem is that we want to eat the wrong food. The longer we ignore flavor, the longer we are bound to be victims of it. This book is also about the solution. The Dorito Effect can be reversed. Thatrsquo;s already happening on small farms and in pioneering science labs. Not only can we imagine a world where the food tastes better and people eat less of itmdash;we can also visit it. I have visited it, and the food, as you will see, is superb. One day, we may look back on this obesity epidemic as a curious aberration in history when advances in analytic and synthetic chemistry outpaced our knowledge of psychology and nutrition. If you like the food in the world yoursquo;re in just fine the way it ismdash;the way it tastes, the way it makes you feel, and the effect it has on your bodymdash;this book isnrsquo;t for you. Get your money back before the spine creases and spend it on bland, synthetically flavored food. Irsquo;m confident yoursquo;ll enjoy eating it; Irsquo;m less confident yoursquo;ll enjoy the consequences. If you want to discover the true nature of our relationship with food and how wersquo;ve manipulated the ornate chemical system that sparks cravings and touches every cell our bodies, turn the page.