

The Mediterranean diet: a view from history^{1,2}

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ABSTRACT Although the virtues of the Mediterranean diet have been advocated since the Renaissance, adoption of the diet outside the Mediterranean region has proved difficult but not impossible. Efforts at promoting dietary change have been explored in the writings of Europeans and Americans since 1614 when Giacomo Castelvetro, an exile from Modena, Italy, published a book in England on Italian fruit, herbs, and vegetables. The historical causes of resistance by groups and individuals—culture, class, sex, and human psychology—are revealed by asking the question, What does food mean to people? Particularly instructive are failed efforts by well-meaning late-19th-century American reformers to hasten the assimilation of newly arrived immigrants by interfering with their eating habits. The establishment of the New England Kitchen, which provided inexpensive Yankee cooking intended to Americanize poor immigrants, served only to expedite food distribution networks between California farms and urban centers, allowing mainly Mediterranean groups to eat their customary foods. Successful efforts at change are also explored, leading to the conclusion that the satisfying flavors of the Mediterranean diet provide the best chance of influencing people to abandon unhealthy foods in favor of fresh vegetables, fruit, grains, and olive oil. The diet must be promoted, however, not only by medical and nutritional authorities, but also by people who have the power to persuade: authorities on cooking and experts in advertising and marketing. *Am J Clin Nutr* 1997;66(suppl):1053S–7S.

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INTRODUCTION

Promoting the Mediterranean diet is not a new idea. In 1614, Giacomo Castelvetro, a lone Italian voice in the English wilderness, sent into the world a book called *A Brief Account of the Fruit, Herbs & Vegetables of Italy* (1). Castelvetro was an exile from Modena, Italy, who had been rescued from the Inquisition in Venice by the British ambassador. After living in England for 3 y, by which time he was fully aware of the standard British diet, he attempted to persuade the English to eat a wider variety of fruit and vegetables prepared as he had eaten them in Italy. He was horrified by the vast quantities of meat and sweets consumed by the people of his adopted country. By persuading them to cultivate and cook the vegetables he had grown and enjoyed in Italy, he hoped to set them on a healthier and more delicious path. His delightful book, translated by Gillian Riley and published again in 1989, contains not

only useful recipes, but also gardening tips, all organized by the seasons. Moreover, the book is filled with advice that to anyone living in the 1990s seems startlingly familiar. Here is what Castelvetro had to say about salads (1, p 62):

Of all the salads we eat in the spring, the mixed salad is the best and most wonderful of all. Take young leaves of mint, those of garden cress, basil, lemon balm, the tips of salad burnet, tarragon, the flowers and tenderest leaves of borage, the flowers of . . . cress, the young shoots of fennel, leaves of rocket, of sorrel, rosemary flowers, some sweet violets, and the tenderest leaves or the hearts of lettuce. When these precious herbs have been picked clean and washed in several waters, and dried. . . with a clean cloth, they are dressed as usual, with oil, salt and vinegar.

Castelvetro continues with a sort of disquisition on the art of salad making, emphasizing clean hands and other points of hygiene and becoming particularly impatient when salad ingredients are not properly dried. But he reaches a true crescendo when he scolds the English for putting vinegar in the dish first—"enough for a footbath," he complains—and then not mixing it up with either oil or salt, which the English customarily added at the table. By then, Castelvetro argued, "some of the leaves are so saturated with vinegar that they cannot take the oil, while the rest are quite naked and fit only for chicken food" (1).

These remarks could have been made hundreds of years later by the late Elizabeth David, a modern advocate of the Mediterranean diet, who also tried to transform English eating habits. In fact, history is filled with reformers who used food to create social change, sometimes by claiming extraordinary benefits to health and other times by promising improved social status through dietary change. Most such advocates learned that changing human eating habits was more difficult and complicated than they had thought. To this day health professionals are meeting with resistance from patients unwilling to change their dietary preferences for reasons that have to do with cultural values and psychologic needs as well as with a general disregard for the received scientific information of a given age.

The scientific values of Castelvetro's day are clear when, for example, he speaks about the need for salads in spring: "[they are] above all, a really important contribution to our health,

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purging us of all the unwholesome humours accumulated during the winter months” (1). Castelvetro is, of course, referring to the doctrine of the four humors which was still the basis of Western medical belief in the 17th century. For > 2000 y, people believed that humans and what they consumed were governed by four humors or complexions, each with their own qualities, which corresponded to the four elements. Blood, the sanguine humor, was hot and moist; it corresponded to air. Phlegm, the sluggish or phlegmatic humor, was cold and moist; it corresponded to water. Yellow or green bile, the choleric humor, was hot and dry; it corresponded to fire. Black bile, or melancholy, was cold and dry; it corresponded to earth. A diet properly selected according to this scheme (the doctrine of humors) would result in a healthy person.

By the Middle Ages, the system had developed complicated and detailed permutations too tedious to go into here. What is interesting to remember, however, is that the prevailing belief was that all humans, animals, and plants were made up of different proportions of the basic elements, and that good health depended on a proper balance. This relation took into consideration what you ate, how it was cooked, the sauces served with it, and the temperament, or humor, of the person doing the eating. So, for instance, people believed that cold wet food like fish needed a nice green sauce of a pounded herb, like parsley, which is warm and dry (2). From the doctrine of humors, rules were observed such as “never serve an old man cold mutton.”

Considering that Castelvetro, like everyone else in his period, believed in the doctrine of humors, he is remarkable for not belaboring the medical underpinnings of his dietary recommendations. Instead, he devotes attention to how foods should taste. His emphasis on flavor and texture makes a point just as relevant today as when Castelvetro proclaimed it, which is that people eat the foods that taste good to them, whether or not the current medical establishment approves of those choices. Another point to keep in mind is that throughout history, people have been making choices about food that have little to do with nourishment and everything to do with the meaning of food to the individual or the group. Among many other things, foods can represent comfort, satisfying such psychological yearnings as the nostalgia for childhood or the reinforcement of ethnic identity.

THE MEANING OF FOOD

Anthropologist Sidney Mintz (3) notes that humans are the only species that inquires about the meaning of what we eat. About food, says Mintz, “We both create mysteries and then try to figure them out Our species stands alone, having resolutely created regimens of diet, and manners of eating, ludicrously remote from its animal nature. . . . We have burdened the food we eat with a backbreaking symbolic load.” Mintz points out that only humans will refuse food when in fact they are hungry. Many young children, for example, will resolutely refuse food in defiance of frantic mothers trying to feed them, playing out what has come to be recognized as the earliest of family power struggles. We know from all of the work being done on eating disorders that girls and young women in the throes of anorexia use the control of food intake

as a way of taking control of their lives, dangerously misguided though it may be. Mintz also reminds us that people have strong feelings of propriety about the foods they love, that the tastes, textures, smells, and colors of foods are impressed on our earliest memories. He describes our eating habits as not only socially acquired but also as “historically derived,” that what we eat becomes so culturally connected that it may not be connected to human biology at all (3).

Mintz’s comments have enormous implications for anyone trying to influence how people eat, whether it be physicians trying to counsel their patients or food companies and advertisers seeking to increase their profits. The Mediterranean diet, so in vogue today and so highly recommended by present-day nutritionists, can serve as a useful point of reference. Briefly characterized, it is a diet based on grains, legumes, and abundant fruit and vegetables. Olive oil is the principal fat and lean red meat is meant to be consumed only a few times a month or somewhat more often in small portions. All other foods from animal sources, such as dairy products (mainly cheese and yogurt), fish, and poultry are to be consumed sparingly; wine is to be drunk moderately and primarily at mealtimes (4). As Castelvetro learned, attempts to influence people in the direction of the Mediterranean diet may not succeed. What is also true is that attempts to lure committed people away from the diet can fail as well. Social observers like Mintz can help us draw some useful conclusions about what is involved in getting people to change their diet.

Castelvetro’s 1614 account of the fruit, herbs, and vegetables of Italy was written to persuade the English to eat differently, more like Italians. Did they change? They did not, and the reasons for this are complicated. To begin with, England’s climate precluded the availability of many of the fresh ingredients enjoyed by any Italian peasant living within sight of a grape arbor or fig tree, flora noticeably absent from the English landscape. The chillier English climate also explains why boiled and roasted meats and vegetables cooked in the fat of the meat might have served as welcome protections against the cold and sunless weather. It is no accident that the British excel in roasting beef and are known to have a great appetite for fatty cheeses.

In other words, people who labor in a cold climate want filling and familiar foods that they also believe are good for them. Although Castelvetro spread the word not only about how to prepare vegetables in the Italian way but also how to grow them, the English resisted his suggestions—and this at a time when many of them had enthusiastically adopted other Italian influences such as clothing, architecture, and gardens; had embraced the language and its writers; and had visited Italy itself.

The traditional English diet has been characterized by historian Harvey Levenstein as relying mainly on a narrow range of stodgy foods that are generally bland. Exceptions occurred, however, when it came to the sweet, overly spiced desserts that the English, and under their influence, the Americans adored. It comes as no surprise that the Beecher sisters, Catherine Beecher and Harriet Beecher Stowe, 19th century reformers, condemned English plum pudding with this sternly mocking recipe: “Take a pound of every indigestible substance you can think of, boil into a cannonball, and serve in flaming brandy” (5). In *Revolution at the Table*,

Levenstein explains how the American diet shifted from such British fare as this to manufactured foods; Levenstein attributes dramatic changes in the American diet to alterations in the food supply and also to the various attempts by a variety of American individuals and businesses to influence what people ate (5).

THE MEDITERRANEAN DIET IN AMERICA

American history, especially that of the late 19th and early 20th centuries, is filled with examples of dubious attempts to change dietary habits (usually in the name of “improvement”), but the attempts by reformers to change the eating customs of the poor are especially telling. Levenstein (5) explains that in the hope of Americanizing and improving the health of immigrants who were populating American cities in record numbers in the 19th century, home economists, social workers, and visiting nurses were convinced that by changing what people ate, they would change the very nature of the people themselves. What passed for nutritional science at the beginning of the 20th century persuaded dietary reformers that foreign food habits were uneconomical because they involved mixtures of foods that required too much energy to digest. They also believed that strong seasonings overworked the digestive system and could lead to cravings for alcohol. In the name of pseudoscience, social snobs pounced on garlic and those who ate it as elements to be avoided. Immigrants also came under other food-related criticisms. The presumed importance of a large breakfast caused one reformer to frown on the habit of tenement dwellers of sending the children out each morning to purchase fresh bread and rolls for breakfast. “Poor little tenement girl,” she wrote, “she does not know that in the well-managed home breakfast is bought the day before” (5).

Three 19th-century urban reformers were especially influential in their time: Edward Atkinson, a self-made Boston business man perhaps best remembered for his Aladdin oven, a slow-cooking gadget that economized on fuel; Wilbur Atwater, a food chemist out to prove that less expensive foodstuffs were as nutritious as costly ones; and Ellen Richards, a scientist dedicated to making inexpensive nutritious food available to the poor.

With Atkinson’s help, and to some extent by using Atwater’s scientific information, Richards established the New England Kitchen in Boston. The kitchen was a noble experiment geared toward nourishing the poor by teaching them proper eating habits, that is, what was considered proper by middle-class Boston Brahmin reformers of the period. Not surprisingly, the experiment failed, because the immigrants for whom the food was intended, many of them Italian, were repelled by such New England favorites as creamed codfish and corn mush. One poor woman was alleged to have said, “I’d rather eat what I’d rather. I don’t want to eat what’s good for me.” The failure of the New England Kitchen was a disappointment to its founders but not a great loss to humanity. As Levenstein points out, “Many of the things the reformers advocated were, in the light of today’s nutritionists, both dangerous and unhealthy” (5). Fresh fruit and vegetables were almost entirely absent, for they were thought to be made up mainly of water, and white flour was advocated whereas wheat bran and the skins of potatoes were

denigrated. What the poor woman would rather eat—the Mediterranean diet—was in fact good for her and tasted much better.

Subsequent reformers were more apt to focus their attention on the middle class, which was more impressed with scientific information. The end of the 19th century was a heyday for food faddism and pseudoscience. This was the era of Horace Fletcher, the great masticator, who advocated chewing each mouthful at least 100 times. Both Henry and William James were temporary disciples, but like everyone else, they soon gave it up in return for a more convivial dining experience rather than the conversational silence that mastication required at table.

While all of this “reforming” was going on, Italians and other American newcomers resisted by opening their own bakeries; bread perhaps more than any other food had a fundamental and symbolic importance to Europeans. Italian immigrants, who had complained about the inferior quality of fruit and vegetables in local markets, constructed networks that linked truck farms around large cities to vegetable growers in California and to wholesale and retail markets in major cities. Italians also showed a remarkable talent for growing their own fruit and vegetables in any bit of land or window box available to them. Just as the English resisted Castelvetro’s attempt to convert them to a Mediterranean diet, so did Italian-American immigrants manage to fend off Anglo-Americans who wanted to change them. Their Mediterranean diet prevailed despite the misguided efforts of those who tried to “improve” it.

In more recent times, a good deal of money and effort have been put into changing the food habits of every American. But nowhere else have peculiar notions of nutritional science shown up more glaringly than in the American diet books geared to those who want to lose weight. Throughout history, diet experts have regularly appeared on the scene offering yet another panacea to readers always in the market to shed pounds. Americans have had a mania for weight-loss dieting for ≥ 150 y (6). In the 1970s and 1980s, popular new books seemed to appear almost every month, signaling at least two things: the assurance of a book-buying audience waiting for the next new miracle and the failure of the previous month’s miracle to fulfill its promise. Many of the books were written by medical doctors: Dr Joseph Rechtschaffen (7), who helped *The New York Times* food critic Craig Claiborne get his weight under control; Dr Stuart M Berger (8), who related weight-loss programs to improved immune systems; and Dr Herman Tarnower (9), famous for the Scarsdale diet and his untimely death at the hands of a scorned lover. More recent diet books are often written by celebrities who have had weight problems and who often regain all their weight as their books are going to press. Actress Elizabeth Taylor, whose fluctuations in weight continue to attract national attention, falls into this category. One of the most amusing of these books was written by Renee Taylor, a minor celebrity who wrote a book in 1986 called *My Life on a Diet* (10). Taylor describes herself as a woman with the spirit of Audrey Hepburn and the appetite of Orson Wells. Later in the book she calls herself “a diet slut” who goes shamelessly from one diet to another.

Although these books vary in the quality of their information and presentation of material, they share the supposition that no one before has come up with the dietary solution offered by the writer. They are wrong, of course, as we see the appearance

and reappearance of diets that feature high-protein, low-carbohydrate; high-carbohydrate, low-protein; plain old low-energy; or plain old irresponsible recommendations. (For example, the recommendation to eat all fruit one day, only meat the next, just rice the next day, and so on.) Taylor's book features a diet that enabled her to lose ≈ 28 kg (62 lb) but kept her a virtual prisoner in her own home where she could devote all of her time to obsessing about her weight (10). One wonders how she fared when she had to reconnect with the outside world where a normal life sometimes requires a shared meal. Taylor's advice is based on the love-hate relationship with food that underlies—and undermines—most diets. In fact, humorist Jean Kerr (11) probably described the relationship best when she said, "The best diet is to eat as much as you want of everything you don't like. And if you should be in a hurry for any reason [to lose weight] . . . then you should confine yourself to food you just plain hate."

The common theme that emerges in personal accounts of dieting is the terrible feeling of conflict gripping the writers who on one hand are tempted by the abundance of food in our modern society, and on the other are tortured by their deep desires to be as bone-thin as top fashion models. A kind of madness seems to possess many Americans who are either eating all of the time or are almost never eating but instead are thinking about it all of the time. Why is this so?

GETTING PEOPLE TO CHANGE

Sidney Mintz put the problem into an anthropologic perspective. Mintz refers to two major revolutions that remade the food habits of the entire world. The first was the domestication of plants and animals, a social breakthrough that allowed people to take control of their food supply and that changed forever the uses of human energy. What Mintz calls the second revolution is the impact of fats and sugars on the traditional ways in which people eat. For most of human history, people ate mainly some form of complex carbohydrate flavored with a small amount of legumes or other form of protein or perhaps olive oil. (Experienced cooks will understand Mintz's point: examples include tortillas and beans in Mexico, rice and bean curd in China, and black bread and cheese in Russia.) These age-old patterns have been interrupted by the introduction of new products such as soft drinks, particularly colas, which throughout the world have moved from being an occasional nonalcoholic beverage to replacing water as the most commonly consumed drink. About this phenomenon Mintz admits, "Our understanding of how food habits change, both historically and at the present time, remains incomplete. Hardly anywhere, apparently, is the value of a change from one way of eating to another carefully weighed or questioned by consumers. . ." (3). To begin to understand, Mintz advises us, we must analyze the price of commodities, mass advertising, and the social conditions under which a new food is introduced, "including the intentions of producers, retailers and the state." At the same time, he cautions, we must also analyze the advice of doctors and other professionals to see where that advice is coming from and what is its scientific basis.

We have seen how the weight-loss dieting merry-go-round has exasperated Americans who consistently fail each purportedly new approach to dieting. We might ask, as Sidney Mintz does, what does this mean? Why are people finding themselves in so miserable a state, torn between eating and not eating? How has the widespread consumption of dietary fats and sugars contributed to the problem? That is not a difficult question to answer when we read the literature on eating disorders and find out which foods are consumed in binges. Not tofu, that's for sure. Foods consumed are ice cream, candy, pastries, and potato chips or other salted and fatty snacks. Furthermore, prescribed weight-loss diets are almost guaranteed to set people up for failure, for they are made up of bland foods in punitively tiny amounts. They remind us of the classic complaint of a customer at a resort hotel that "the food was terrible, and such small portions!" At the same time, it has been observed that dieters' perception of the amount of food they have eaten and the amount of exercise they have engaged in is often seriously askew. People wildly underestimate the former and overestimate the latter (12, 13). A more reliable measure of what Americans are eating comes from data provided by the US Department of Agriculture, which show that the consumption of meat and sugars is at a record high (14).


How can the Mediterranean diet be useful in this context? One obvious course of action for those interested in weight loss and other health issues is to go back to the way people ate before large amounts of fats and sugars moved into our diets. By eating lower on the food chain, people can at least fill up on quantities of complex carbohydrates dressed with small amounts of meats, sauces, and other deeply flavored condiments. This will not guarantee that dieters will avoid sweet and fatty foods, but can perhaps provide some safeguard in that they will not walk around constantly hungry and highly vulnerable to the food fantasies that lead to binges. There are, however, reasons to believe that the Mediterranean diet will appeal to large numbers of people. The enormous popularity of pizza, pasta, rice, bean dishes, and rustic breads suggests that people are attracted to foods rich in complex carbohydrates, although they must be taught to prepare them without saturated fats and at the same time to include more fresh fruit and vegetables. Perhaps we can learn some lessons from the past.

In *Revolution at the Table*, Levenstein tells us that massive dietary changes took place when manufacturers created consumer demand for new products (5). The American Sugar Refining Company (New York) mounted a successful campaign against brown sugar by telling people it was infested with insects; similarly, Kellogg's (Battle Creek, MI) and Post (Battle Creek, MI) radically changed the traditional cooked breakfast by linking their products to the promise of improved health. We can learn something from these companies. In fact, we are already seeing some changes in connection with the public's fear of fat. Nabisco's (Parsippany, NJ) Snackwell no-fat cookies have displaced the Oreo (Nabisco) as America's favorite cookie. This is despite Snackwell's notorious lack of substance and satisfaction, often requiring the eater to down a boxful of 12 cookies (containing 2510 kJ, or 600 kcal, of mostly sugar) before feeling full. Snackwell's extremely well-funded development and introduction to the marketplace has

been accompanied by a clever advertising campaign showing gangs of women standing ready to ambush the delivery man bringing the cookies to supermarket shelves.

If such consumer demand can be created for a product that does not taste very good, then what might be accomplished by using the media to market foods that are delicious, satisfying, and attractive to look at? We can be assured that fresh produce has an aesthetic appeal, for still-life fruit and vegetables have been painted by artists for hundreds of years. Using the best available scientific information, a team of scientists, educators, cooks, and communicators working together should be able to convince the public that eating well-prepared healthy food is something to strive for, especially when the food tastes good. This is the promise of the Mediterranean diet, which boasts of such deeply flavored, aromatic, and colorful foods as roasted vegetables, olive-studded loaves of bread, and salads made with fresh greens and fragrant olive oil and vinegar. Recipes for such dishes and many others can be found in the works of Paula Wolfert (15) and Joyce Goldstein (16), widely admired writers on Mediterranean foods.

Medical professionals who obviously want to see large-scale improvements in the eating habits of the American public will have to understand the complexity of human food choices and build an interdisciplinary team to work together to get people to change. One starts with nutritional information, but that is just the beginning. Insights into why people eat the way they do can come from anthropologists, social historians, and social scientists who are concerned with human behavior from various perspectives and who can help to explain the foibles of humans. This group would do well to include experts in the art of public relations and advertising, for these persons understand how the media influences people to try new things and accept change. Finally, the team will need to work with excellent cooks and food writers, for only with their help can good science be translated into good dishes. Even when people have available to them sound and persuasive scientific evidence,

they still will not change their eating habits unless they find personal reasons for doing so. 

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