

THE BIG FAT SURPRISE

NINA TEICHOLZ

Notes

Introduction

- 2 *My article received*: Nina Teicholz, “Heart Breaker,” *Gourmet*, June 2004, 100–105.
- 4 *“We were jumped on!”*: David Kritchevsky, interview with author, May 31, 2005.
- 4 *our fruits and vegetables by 17 percent, our grains by 29 percent*: Calculated from data in US Department of Agriculture, “Profiling Food Consumption in America,” *Agricultural Fact Book 2001–2002* (Washington, DC: US Government Printing Office, 2003) 18–19.
- 4 *40 percent to 33 percent of calories*: Dietary Guidelines Advisory Committee, prepared for the Agricultural Research Service, US Department of Agriculture and US Department of Health and Human Services, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. To the Secretary of Agriculture and the Secretary of Health and Human Services*, 7th ed. (Washington, DC: US Government Printing Office, May 2010), 219.
- 4 *one in seven adult Americans was obese*: US Centers for Disease Control, National Health Examination Survey, 1960–1962, last accessed February 12, 2014, <http://www.cdc.gov/nchs/nhanes.htm>.
- 4 *share of those fats that are saturated has also declined*: Centers for Disease Control and Prevention (CDC), “Trends in Intake of Energy and Macronutrients—United States, 1971–2000,” *Morbidity and Mortality Weekly Report* 53, no. 4 (2004): 80–82.
- 5 *less than 1 percent . . . more than 11 percent*: Maureen I. Harris, “Prevalence of Noninsulin-Dependent Diabetes and Impaired Glucose Tolerance,” *Diabetes in America* 6 (1985): 1–31; G. L. Beckles, C. F. Chou, Centers for Disease Control and Prevention, “Diabetes—United States, 2006 and 2010,” *Morbidity and Mortality Weekly Report* 62, suppl. 3 (2012): 99–104.
- 5 *failed to lose weight . . . any major kind of cancer*: Shirley Beresford et al., “Low-Fat Dietary Pattern and Risk of Colorectal Cancer: The Women’s Health Initiative Randomized Controlled Dietary Modification Trial,” *Journal of the American Medical Association* 295, no. 6 (2006): 643–654. Barbara V. Howard et al., “Low-Fat Dietary Pattern and

Weight Change Over 7 Years: The Women's Health Initiative Dietary Modification Trial," *Journal of the American Medical Association* 295, no. 1 (2006): 39–49; Barbara V. Howard et al., "Low-Fat Dietary Pattern and Risk of Cardiovascular Disease: The Women's Health Initiative Randomized Controlled Dietary Modification Trial," *Journal of the American Medical Association* 295, no. 6 (2006): 655–666; Ross L. Prentice et al., "Low-Fat Dietary Pattern and Risk of Invasive Breast Cancer: The Women's Health Initiative Randomized Controlled Dietary Modification Trial," *Journal of the American Medical Association* 295, no. 6 (2006): 629–642; Ross L. Prentice et al., "Low-Fat Dietary Pattern and Cancer Incidence in the Women's Health Initiative Dietary Modification Randomized Controlled Trial," *Journal of the National Cancer Institute* 99, no. 20 (2007): 1534–1543.

- 6 *In writing this book*: The author has no conflicts of interest; she has never received any financial or in-kind support, either directly or indirectly, from any party with an interest related to any of the topics covered in this book.

1. The Fat Paradox: Good Health on a High-Fat Diet

- 9 *Observers estimated that*: Vihjalmur Stefansson, *The Fat of the Land*, engl. ed. of *Not by Bread Alone* (1946, repr., New York: Macmillan, 1956), 31; calculated by the author from Hugh M. Sinclair, "The Diet of Canadian Indians and Eskimos," *Proceedings of the Nutrition Society* 12, no. 1 (1953): 74.
- 9 *The fat deposits . . . and the shoulder*: Vihjalmur Stefansson, *The Friendly Arctic: The Story of Five Years in Polar Regions* (New York: Greenwood Press, 1921): 231–232.
- 9 *The leaner parts*: Vihjalmur Stefansson, *The Fat of the Land*, 25.
- 9 *"The chief occasion for vegetables . . ."*: *Ibid.*, 23.
- 10 *"no real work"*: Stefansson, *The Friendly Arctic*, 24.
- 10 *"They should have been in a wretched state"*: Stefansson, *Fat of the Land*, xvi.
- 10 *"A storm of protests" . . . "Eating meat raw"*: *Ibid.*, 65.
- 10 *would certainly die*: *Ibid.*, 71.
- 10 *"The symptoms brought on at Bellevue"*: *Ibid.*, 69.
- 10 *Half a dozen papers published*: Clarence W. Lieb, "The Effects on Human Beings of a Twelve Months' Exclusive Meat Diet Based on Intensive Clinical and Laboratory Studies on Two Arctic Explorers Living under Average Conditions in a New York Climate," *Journal of the American Medical Association* 93, no. 1 (July 6, 1929): 20–22; John C. Torrey, "Influence of an Exclusively Meat Diet on the Human Intestinal Flora," *Proceedings of the Society for Experimental Biology and Medicine* 28, no. 3 (1930): 295–296; Walter S. McClellan, Virgil R. Rupp, and Vincent Toscani, "Prolonged Meat Diets with a Study of the Metabolism of Nitrogen, Calcium, and Phosphorus," *Journal of Biological Chemistry* 87 no. 3 (1930): 669–680; Clarence W. Lieb and Edward Tolstoi, "Effect of an Exclusive Meat Diet on Chemical Constituents of the Blood," *Proceedings of the Society for Experimental Biology and Medicine* 26, no. 4 (1929): 324–325; Edward Tolstoi, "The Effect of an Exclusive Meat Diet Lasting One Year on the Carbohydrate Tolerance of Two Normal Men," *Journal of Biological Chemistry* 83 no. 3 (1929): 747–752; Edward Tolstoi, "The Effect of an Exclusive Meat Diet on the Chemical Constituents of the Blood," *Journal of Biological Chemistry* 83 no. 3 (1929): 753–758.

- 11 *would drink from 2 to 7 liters of milk each day*: A. Gerald Shaper, "Cardiovascular Studies in the Samburu Tribe of Northern Kenya," *American Heart Journal* 63, no. 4 (1962): 437–442.
- 11 *Mann found the same with the Masai*: Kurt Biss et al., "Some Unique Biologic Characteristics of the Masai of East Africa," *New England Journal of Medicine* 284, no. 13 (1971): 694–699.
- 11 *"no vegetable products are taken"*: George V. Mann et al., "Cardiovascular Disease in the Masai," *Journal of Atherosclerosis Research* 4, no. 4 (1964): 289–312.
- 12 *"These findings hit me very hard"*: A. Gerald Shaper, Interview with Henry Blackburn. In "Preventing Heart Attack and Stroke: A History of Cardiovascular Disease Epidemiology," last accessed February 14, 2014. <http://www.epi.umn.edu/cvdepi/interview.asp?id=64>.
- 12 *a review of some twenty-six papers . . . "more or less undisturbed"*: Frank W. Lowenstein, "Blood-Pressure in Relation to Age and Sex in the Tropics and Subtropics: A Review of the Literature and an Investigation in Two Tribes of Brazil Indians," *Lancet* 277, no. 7173 (1961): 389–392. Another study of Bushmen in Kalahari concluded that a "rise in blood pressure is not a characteristic of a normal aging process"; Benjamin Kaminer and W. P. W. Lutz, "Blood Pressure in Bushmen of the Kalahari Desert," *Circulation* 22, no. 2 (1960): 289–295.
- 12 *subsistence was "easy" . . . "labor light" . . . "seem sedentary"*: Mann, "Cardiovascular Disease in the Masai," 309.
- 12 *no evidence of a heart attack*: Ibid.
- 12 *found "possible" signs of heart disease*: A. Gerald Shaper, "Cardiovascular Studies in the Samburu Tribe of Northern Kenya," *American Heart Journal* 63, no. 4 (1962): 439.
- 12 *on fifty Masai men and found only one*: George V. Mann et al., "Atherosclerosis in the Masai," *American Journal of Epidemiology* 95, no. 1 (1972): 26.
- 13 *Nor did the Masai suffer from other*: Mann, "Cardiovascular Disease in the Masai, 303–306.
- 13 *"To eat 'better,' . . . the core of the answer"*: Mark Bittman, "No Meat, No Dairy, No Problem," *New York Times*, December 29, 2011.
- 13 *The first point on the USDA dietary guidelines*: US Department of Agriculture and US Department of Health and Human Services, *Dietary Guidelines for Americans, 2010*, 7th ed. (Washington, DC: US Government Printing Office, December 2010), viii–ix.
- 14 *These Indians in the north . . . "in marked contrast"*: Robert McCarrison, *Nutrition and National Health: The Cantor Lectures* (London: Faber and Faber, 1936), 19.
- 14 *he found that he could reproduce*: Ibid., 24–29.
- 14 *wrote up his observations in a 460-page report*: Aleš Hrdlička, *Physiological and Medical Observations among the Indians of Southwestern United States and Northern Mexico*, Smithsonian Institution Bureau of American Ethnology Bulletin 34 (Washington, DC: US Government Printing Office, 1908).
- 14 *would likely have been raised*: W. W. Newcombe, Jr., *The Indians of Texas: From Prehistoric to Modern Times* (Austin: University of Texas Press, 1961): 92, 98, 100, 138, 160, 163, 197, and 323.
- 15 *"no error could account for"*: Hrdlička, *Physiological and Medical Observations*, 40–41.
- 15 *"not one of these . . . demented or helpless"*: Ibid., 158.

- 15 “some seem to assume that it does not exist”: George Prentice, “Cancer among Negroes,” *British Medical Journal* 2, no. 3285 (1923): 1181.
- 15 “relative immunity . . . The negroes, when they can get it”: Ibid.
- 16 reported that the meat of the wild animals: Michael A. Crawford, “Fatty-Acid Ratios in Free-Living and Domestic Animals,” *Lancet* 291, no. 7556 (1968): 1329–1333.
- 17 “if people had only rabbits . . .”: John D. Speth, *Bison Kills and Bone Counts: Decision Making by Ancient Hunters* (Chicago: University of Chicago Press, 1983), 151.
- 17 half of the fat in a deer kidney: Sally Fallon Morell and Mary Enig, “Guts and Grease: The Diet of Native Americans,” *Wise Traditions in Food, Farming, and the Healing Arts* 2, no. 1 (2001): 43.
- 17 a consistent hunting pattern among humans: Many accounts are collected in Speth, *Bison Kills and Bone Counts*, 146–159; other accounts are in Michael A. Jochim, *Strategies for Survival: Cultural Behavior in an Ecological Context* (New York: Academic Press, 1981), 80–90, and Stefansson, *The Fat of the Land*, 126–131 and 136.
- 17 fat was “the determining criteria” when hunting: Philippe Max Rouja, Éric Dewailly, and Carole Blanchet, “Fat, Fishing Patterns, and Health among the Bardi People of North Western Australia,” *Lipids* 38, no. 4 (2003): 399–405.
- 17 was considered “rubbish” . . . “to be enjoyed”: Ibid., 400.
- 18 “tried the meat of horse” . . . from five to six pounds . . . “continued to grow weak and thin” . . . “craving for fat”: Randolph B. Marcy, *The Prairie Traveler: A Handbook for Overland Expeditions* (London: Trubner, 1863): 16.
- 18 most of the game “were too lean for use”: Ibid., 152.

2. Why We Think Saturated Fat Is Unhealthy

- 20 the prevailing view held that: Daniel Steinberg, “An Interpretive History of the Cholesterol Controversy: Part 1,” *Journal of Lipid Research* 45, no. 9 (2004): 1587.
- 20 “defeatist attitude about heart disease”: Ancel Keys, “Atherosclerosis: A Problem in Newer Public Health,” *Journal of the Mount Sinai Hospital, New York* 20, no. 2 (1953): 119.
- 20 “direct to the point of bluntness”: Henry Blackburn, interview with Ancel Keys, in *Health Revolutionary: The Life and Work of Ancel Keys*, Public Health Leadership Film, Association of Schools of Public Health, last accessed January 5, 2014, <http://www.asph.org/document.cfm?page=793>.
- 20 “to the death” . . . “arrogant” . . . “ruthless”: Anna Ferro-Luzzi, interview with author, September 18, 2008; George V. Mann, interview with author, October 5, 2005; Michael F. Oliver, interview with author, May 1, 2009.
- 21 Keys discovered a passion: Blackburn, interview with Keys, *Health Revolutionary*.
- 21 The K stood for Keys: Jane Brody, “Dr. Ancel Keys, 100, Promoter of the Mediterranean Diet, Dies,” *New York Times*, November 23, 2004.
- 21 “biological rust” . . . “spread to choke off the flow”: Alton Blakeslee and Jeremiah Stampler, *Your Heart Has Nine Lives: Nine Steps to Heart Health* (New York: Pocket Books, 1966), 24.
- 21 One unfortunate girl had a heart attack: George Lehzen and Karl Knauss, “Über Xanthoma Multiplex Planum, Tuberosum, Mollusciformis,” *Archive A, Pathological Anatomy and Histology* 116 (1889): 85–104.

- 22 *led researchers to believe*: S. J. Thannhauser and Heinz Magendantz, "The Different Clinical Groups of Xanthomatous Diseases: A Clinical Physiological Study of 22 Cases," *Annals of Internal Medicine* 11, no. 9 (1938): 1662–1746.
- 22 *Anitschkow reported that*: N. Anitschkow, S. Chalатов, C. Müller, and J. B. Duguid, "Über experimentelle Cholesterinsteatose: Ihre Bedeutung für die Entstehung Einiger Pathologischer Prozessen," *Zentralblatt für Allgemeine Pathologie und Pathologische Anatomie* 24 (1913): 1–9.
- 22 *replicated on all sorts of animals*: Reviewed in Edward H. Ahrens, Jr. et al., "Dietary Control of Serum Lipids in Relation to Atherosclerosis," *Journal of the American Medical Association* 164, no. 17 (1957): 1905–1911.
- 22 *was widely replicated on all sorts of animals*: On animal models, see, e.g., Edward H. Ahrens Jr. et al., "The Influence of Dietary Fats on Serum-Lipid Levels in Man," *Lancet* 269, no. 6976 (1957): 943–953.
- 22 *Contemporaries note that rabbits*: Ancel Keys was one of the researchers making this objection; Ancel Keys, "Human Atherosclerosis and the Diet," *Circulation* 5, no. 1 (1952): 115–118.
- 22 *By contrast, when the experiment*: R. Gordon Gould, "Lipid Metabolism and Atherosclerosis," *American Journal of Medicine* 11, no. 2 (1951): 209; R. Gordon Gould et al., "Cholesterol Metabolism: I. Effect of Dietary Cholesterol on the Synthesis of Cholesterol in Dog Tissue in Vitro," *Journal of Biological Chemistry* 201, no. 2 (1953), 519.
- 23 *introduced by two biochemists from Columbia University*: D. Rittenberg and Rudolf Schoenheimer, "Deuterium as an Indicator in the Study of Intermediary Metabolism XI. Further Studies on the Biological Uptake of Deuterium into Organic Substances, with Special Reference to Fat and Cholesterol Formation," *Journal of Biological Chemistry* 121, no. 1 (1937): 235–253.
- 23 *there was "overwhelming evidence"*: Keys, "Human Atherosclerosis and the Diet," 116.
- 23 *had only a "trivial" effect . . . "requires no further consideration"*: Ancel Keys, "Diet and the Epidemiology of Coronary Heart Disease," *Journal of the American Medical Association* 164, no. 17 (1957): 1912–1919. Quote in Ancel Keys et al., "Effects of Diet on Blood Lipids in Man Particularly Cholesterol and Lipoproteins," *Clinical Chemistry* 1, no. 1 (1955): 40.
- 23 *he later recorded in a book*: Uffe Ravnskov, *The Cholesterol Myths: Exposing the Fallacy that Saturated Fat and Cholesterol Cause Heart Disease* (Washington, DC: New Trends, 2000), 111–112.
- 23 *has never been shown to have*: Eder Quintão, Scott Grundy, and Edward H. Ahrens, Jr., "Effects of Dietary Cholesterol on the Regulation of Total Body Cholesterol in Man," *Journal of Lipid Research* 12, no. 2 (1971): 233–247; Paul J. Nestel and Andrea Poyser, "Changes in Cholesterol Synthesis and Excretion When Cholesterol Intake Is Increased," *Metabolism* 25, no. 12 (1976): 1591–1599.
- 23 *one of the most comprehensive analyses*: Paul N. Hopkins, "Effects of Dietary Cholesterol on Serum Cholesterol: A Meta-Analysis and Review," *American Journal of Clinical Nutrition* 55, no. 6 (1992): 1060–1070.
- 24 *authorities in Britain and most other European nations*: A. Stewart Truswell, "Evolution of Dietary Recommendations, Goals, and Guidelines," *American Journal of Clinical Nutrition* 45, no. 5, suppl. (1987): 1068.

- 24 *The United States, however, has continued recommending*: Dietary Guidelines Advisory Committee, prepared for the Agricultural Research Service, US Department of Agriculture and US Department of Health and Human Services, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. To the Secretary of Agriculture and the Secretary of Health and Human Services*, 7th ed. (Washington, DC: US Government Printing Office, May 2010), x.
- 24 *Keys suggested that researchers*: Keys, "Diet and the Epidemiology of Coronary Heart Disease," 1914.
- 24 *"sleepy old field . . . lipid research" . . . funds . . . each year . . . "lipid research . . . Big Time"*: Edward H. Ahrens, Jr., "After 40 Years of Cholesterol-Watching," *Journal of Lipid Research* 25, no. 13 (1984): 1442.
- 26 *researchers first discovered in 1952*: Lawrence S. Kinsell et al., "Dietary Modification of Serum Cholesterol and Phospholipid Levels," *Journal of Clinical Endocrinology and Metabolism* 12, no. 7 (1952): 909–913.
- 26 *at Harvard University found*: Mervyn G. Hardinge and Fredrick J. Stare, "Nutritional Studies of Vegetarians: 2. Dietary and Serum Levels of Cholesterol," *Journal of Clinical Nutrition* 2 no. 2 (1954): 82–88.
- 26 *A Dutch study of vegetarians*: J. Groen, et al., "Influence of Nutrition, Individual, and Some Other Factors, Including Various Forms of Stress, on Serum Cholesterol; Experiment of Nine Months' Duration in 60 Normal Human Volunteers," *Voeding* 13 (1952): 556–587.
- 26 *found that the saturated fats in butter*: Edward H. Ahrens, Jr., David H. Blankenhorn, and Theodore T. Tsaltas, "Effect on Human Serum Lipids of Substituting Plant for Animal Fat in Diet," *Proceedings for the Society of Experimental Biology and Medicine* 86, no. 4 (1954): 872–878; Ahrens et al., "The Influence of Dietary Fats on Serum-Lipid Levels in Man."
- 26 *was far more heterogeneity*: Quintão, Grundy, and Ahrens, "Effects of Dietary Cholesterol on the Regulation of Total Body Cholesterol in Man."
- 26 *one of his most "gratifying contributions"*: Ahrens, "After 40 Years of Cholesterol-Watching," 1444.
- 26 *discovered that the lower-fat diets*: Ancel Keys, Joseph T. Anderson, and Francisco Grande, "Prediction of Serum-Cholesterol Responses of Man to Changes in Fats in the Diet," *Lancet* 273, no. 7003 (1957): 959–966.
- 26 *"No other variable in the mode of life"*: Ancel Keys and Joseph T. Anderson, "The Relationship of the Diet to the Development of Atherosclerosis in Man," *Symposium on Atherosclerosis* (Washington, DC: National Academy of Sciences–National Research Council, 1954), 189.
- 27 *Keys's graph suggested that*: Keys, "Atherosclerosis: A Problem in Newer Public Health."
- 29 *Keys thought fat must make people fat*: Keys, "Diet and the Epidemiology of Coronary Heart Disease," 1918.
- 29 *Jerry Seinfeld when he described*: Jerry Seinfeld, *I'm Telling You for the Last Time*, Broadhurst Theatre, New York, 1998.
- 29 *A lurking fear of fat*: Peter N. Stearns, *Fat History: Beauty in the Modern West* (New York: New York University Press, 1997), 12 and 25–47.
- 29 *A good portion of his early papers*: Keys, "Diet and the Epidemiology of Coronary Heart Disease," 1913–1914; Ancel Keys and Francisco Grande, "Role of Dietary Fat in

- Human Nutrition: III. Diet and the Epidemiology of Coronary Heart Disease," *American Journal of Public Health and the Nations Health* 47, no. 12 (1957): 1528–1529.
- 30 *He and his wife, Margaret . . . the locals' cholesterol*: Keys et al., "Effects of Diet on Blood Lipids in Man," 34–52.
 - 30 *traveled first to Naples then to Madrid*: Ancel Keys et al., "Studies on Serum Cholesterol and Other Characteristics of Clinically Healthy Men in Naples," *A.M.A. Archives of Internal Medicine* 93, no. 3 (March 1954): 328–336; Ancel Keys et al., "Studies on the Diet, Body Fatness and Serum Cholesterol in Madrid, Spain," *Metabolism Clinical and Experimental* 3, no. 3 (May 1954): 195–212.
 - 30 *It must instead be due to diet*: Keys and Grande, "Role of Dietary Fat in Human Nutrition," 1520–1530.
 - 30 *"only the factor of fat appears"*: Keys et al., "Effects of Diet on Blood Lipids in Man," 42.
 - 30 *"dominated by the long-time effects"*: Keys, "Diet and the Epidemiology of Coronary Heart Disease," 1912.
 - 30 *"object lesson for the coronary problem"*: Ancel Keys, "The Inception and Pilot Surveys," in *The Seven Countries Study: A Scientific Adventure in Cardiovascular Disease Epidemiology*, ed. Daan Kromhout, Alessandro Menotti, and Henry W. Blackburn (Bilthoven, Holland: privately published, 1993): 15–26.
 - 31 *"clearly" a "major factor" . . . of heart disease*: Keys, "Studies on the Diet, Body Fatness and Serum Cholesterol in Madrid, Spain," 209; "major factor" Keys et al., "Studies on the Diet, Body Fatness and Serum Cholesterol in Madrid, Spain," 210.
 - 31 *Keys found further ammunition*: Haqvin Malmros, "The Relation of Nutrition to Health: A Statistical Study of the Effect of the War-Time on Arteriosclerosis, Cardiosclerosis, Tuberculosis and Diabetes," *Acta Medica Scandinavica Supplementum* 138, no. S246 (1950): 137–153. See also, Gotthard Schettler, "Atherosclerosis during Periods of Food Deprivation Following World Wars I and II," *Preventive Medicine* 12, no. 1 (1983): 75–83.
 - 31 *Other scientists noted*: George V. Mann, "Epidemiology of Coronary Heart Disease," *American Journal of Medicine* 23, no. 3 (1957): 463–480.
 - 31 *Keys dismissed them outright*: Ancel Keys, "The Diet and Development of Coronary Heart Disease," *Journal of Chronic Disease* 4, no. 4 (1956): 364–380.
 - 31 *Keys came to this conclusion after conducting*: Keys, Anderson, and Grande, "Prediction of Serum-Cholesterol Responses of Man." Studies are summarized and cited in Ancel Keys, Joseph T. Anderson, and Francisco Grande, "Serum Cholesterol in Man: Diet Fat and Intrinsic Responsiveness," *Circulation* 19, no. 2 (1959): 201.
 - 31 *as Keys announced in a cluster of papers*: Joseph T. Anderson, Ancel Keys, and Francisco Grande, "The Effects of Different Food Fats on Serum Cholesterol Concentration in Man," *Journal of Nutrition* 62, no. 3 (1957): 421–424; Keys, Anderson, and Grande, "Prediction of Serum Cholesterol Responses of Man"; Keys, "Diet and the Epidemiology of Coronary Heart Disease": Ancel Keys, Joseph T. Anderson, and Francisco Grande, "Fats and Disease," *Lancet* 272, no. 6796 (1957): 992–993.
 - 32 *he published a specific mathematical formula*: Keys, Anderson, and Grande, "Serum Cholesterol in Man: Diet Fat and Intrinsic Responsiveness."
 - 32 *"become very rare" . . . "sharp reduction"*: E. V. Allen et al., "Atherosclerosis: A Symposium," *Circulation* 5, no. 1 (1952): 99.

- 32 *he had secured an appointment*: Kromhout, Menotti, and Blackburn, eds., *The Seven Countries Study*, 196.
- 32 *Keys is the only researcher he mentions by name*: Ibid., 76.
- 32 *he switched to . . . ate melba toast*: Paul Dudley White, "Heart Ills and Presidency: Dr. White's Views," *New York Times*, October 30, 1955, A1.
- 32 *"a rich fatty diet" . . . "probable" cause . . . "majority of cases"*: Keys, "Diet and the Epidemiology of Coronary Heart Disease," 1912.
- 34 *Yerushalmy's objection*: Jacob Yerushalmy and Herman E. Hilleboe, "Fat in the Diet and Mortality from Heart Disease: A Methodologic Note," *New York State Journal of Medicine* 57, 14 (1957): 2343–2354.
- 35 *"I remember the mood in the lab"*: Henry Blackburn, interview with author, November 9, 2008.
- 35 *Mann wrote of his hope*: George V. Mann, "Diet and Coronary Heart Disease," *Archives of Internal Medicine* 104 (1959): 921–929.
- 35 *national statistics were unreliable*: Ancel Keys, "Epidemiologic Aspects of Coronary Artery Disease," *Journal of Chronic Diseases* 6, no. 4 (1957): 552–559.
- 35 *an investigation from 1964*: D. D. Reid and G. A. Rose, "Preliminary Communications: Assessing the Comparability of Mortality Statistics," *British Medical Journal* 2, no. 5422 (1964): 1437–1439.
- 36 *Keys was fully aware*: Keys, *Symposium on Atherosclerosis*, 119.
- 36 *"negative versus positive"*: Ancel Keys, "Epidemiologic Aspects of Coronary Artery Disease," 552.
- 36 *remembers Blackburn*: Henry W. Blackburn, interview with author, July 22, 2008.
- 37 *Keys launched the study . . . an annual grant*: "The Fat of the Land," *Time*, January 13, 1961, 48–52.
- 37 *A number of critics have since pointed out*: Ravnskov, *The Cholesterol Myths*, 18–19; Gary Taubes, *Good Calories, Bad Calories: Fats, Carbs and the Controversial Science of Diet and Health* (New York: Alfred A. Knopf, 2007), 32.
- 37 *as he wrote, he chose places that he thought*: Alessandro Menotti, email message to author, September 10, 2008.
- 37 *"where he found enthusiastic help"*: Menotti, email message to author, September 10, 2008; Flaminio Fidanza, another original team member on the Seven Countries study, confirmed this assessment: Flaminio Fidanza, email message to author, September 16, 2008.
- 37 *"Keys just had a personal aversion"*: Blackburn, interview.
- 38 *at least 150,000 Greeks*: George S. Siampos, *Recent Population Change Calling for Policy Action: With Special Reference to Fertility and Migration* (Athens: National Statistical Service of Greece, 1980): 234–257.
- 38 *monograph published by the AHA*: Ancel Keys, ed., "Coronary Heart Disease in Seven Countries," *Circulation* 61 and 62, suppl. 1, American Heart Association Monograph No. 29 (1970): I-1–I-211.
- 38 *a book from Harvard University Press*: Ancel Keys, *Seven Countries: A Multivariate Analysis of Death and Coronary Heart Disease* (Cambridge, MA: Harvard University Press, 1980).

- 38 *according to one tally*: Calculation by John Aravanis, M.D., from personal communication with his father, Christos Aravanis, who directed the Greek portion of the Seven Countries Study.
- 38 *the number was ridiculously low . . . was 290*: Keys, *Seven Countries: A Multivariate Analysis*, 65.
- 39 *“heart attacks might be prevented”*: Quoted in Jane E. Brody, “Dr. Ancel Keys, 100, Promoter of Mediterranean Diet, Dies,” *New York Times*, November 23, 2004.
- 39 *Saturated fat comprised*: Keys, “Coronary Heart Disease in Seven Countries.”
- 39 *even more paradoxical*: Ancel Keys et al., “The Seven Countries Study: 2,289 Deaths in 15 Years,” *Preventive Medicine* 13, no. 2 (1984): 141–154.
- 40 *“The Greek Orthodox fast is a strict one . . . eggs and butter”*: Leland Girard Allbaugh, *Crete: A Case Study of an Underdeveloped Area* (Princeton, NJ: Princeton University Press, 1953), 103.
- 40 *the expression “pari corajisima”*: Vito Teti, “Food and Fatness in Calabria,” in *Social Aspects of Obesity*, ed. Igor de Garine and Nancy J. Pollock, trans. Nicolette S. James (Amsterdam: Gordon and Breach, 1995), 13.
- 40 *A study conducted on Crete*: Katerina Sarri et al., “Greek Orthodox Fasting Rituals: A Hidden Characteristic of the Mediterranean Diet of Crete,” *British Journal of Nutrition* 92, no. 2 (2004): 277–284.
- 40 *“strict adherence [to Lent] did not seem to be common”*: Keys, “Coronary Heart Disease in Seven Countries,” I-166.
- 40 *made no mention of the issue at all*: Ancel Keys, Christos Aravanis, and Helen Sdrin, “The Diets of Middle-Aged Men in Two Rural Areas of Greece,” *Voeding* 27, no. 11 (1966): 575–586.
- 40 *“no attempt was made” . . . “a remarkable and troublesome omission”*: Katerina Sarri and Anthony Kafatos, letter to the editor, “The Seven Countries Study in Crete: Olive Oil, Mediterranean Diet or Fasting?” *Public Health Nutrition* 8, no. 6 (2005): 666.
- 41 *“we should not” . . . “the ideal thing all the time”*: Daan Kromhout, interview with author, October 4, 2007.
- 41 *he knew it would go unnoticed*: Keys, Aravanis, and Sdrin, “Diets of Middle-Aged Men in Two Rural Areas of Greece,” 577.
- 42 *category of foods . . . which had a correlation coefficient*: Alessandro Menotti et al., “Food Intake Patterns and 25-Year Mortality from Coronary Heart Disease: Cross-Cultural Correlations in the Seven Countries Study,” *European Journal of Epidemiology* 15, no. 6 (1999): 507–515.
- 42 *“too troublesome” to recode*: Alessandro Menotti, interview with author, July 24, 2008.
- 42 *“Keys was very opposed to the sugar idea”*: Kromhout, interview.
- 43 *“He was so convinced that fatty acids” . . . “own point of view”*: Ibid.
- 43 *“mountain of nonsense”*: Ancel Keys, “Sucrose in the Diet and Coronary Heart Disease,” *Atherosclerosis* 14, no. 2 (1971): 200.
- 43 *“Yudkin and his commercial backers”*: Ancel Keys and Margaret Keys, *How to Eat Well and Stay Well the Mediterranean Way* (Garden City, NY: Doubleday, 1975), 58.
- 43 *Keys published these numbers*: Ancel Keys, “Letter to the Editors,” *Atherosclerosis* 18, no. 2 (1973): 352.

- 43 “Sugar was never discussed properly”: Menotti, interview.
 44 *Time magazine reported*: “Medicine: The Fat of the Land,” *Time*, January 13, 1961.

3. The Low-Fat Diet Is Introduced to America

- 47 *small and underfunded . . . virtually no income*: William W. Moore, *Fighting for Life: A History of the American Heart Association 1911–1975* (Dallas: American Heart Association, 1983): 43.
 47 *Procter & Gamble (P&G) designated*: H. M. Marvin, 1924–1964: *The 40 Year War on Heart Disease* (New York: American Heart Association, 1964), adapted from an address originally presented before officers of affiliated Heart Associations in 1956.
 48 “suddenly the coffers were filled . . . dreams are made of!”: *Ibid.*, 51.
 48 “bang of big bucks” . . . “launched”: *Ibid.*
 48 *seven chapters . . . \$2,650,000*: *Ibid.*, 56.
 48 *three hundred chapters . . . \$30 million annually*: Moore, *Fighting for Life*, 77; *\$30 million*: Marvin, 1924–1964: *The 40 Year War on Heart Disease*.
 48 *AHA took in 40 percent more*: Moore, *Fighting for Life*, 72.
 49 “People want to know”: Irvine Page et al., “Atherosclerosis and the Fat Content of the Diet,” *Circulation* 16, no. 2 (1957): 164.
 49 “uncompromising stands based on evidence”: *Ibid.*
 49 “the best scientific evidence available”: Irvine Page et al., “Dietary Fat and Its Relation to Heart Attacks and Strokes,” *Circulation* 23, no. 1 (1961): 133–136.
 50 “some undue pussy-footing”: “Medicine: The Fat of the Land,” *Time*, January 13, 1961.
 51 *tucking into scrambled eggs*: Hans H. Hecht, letter to Jeremiah Stamler, February 10, 1969, in author’s possession.
 51 “Middle Aged Men Cautioned on Fat”: Murray Illson, “Middle-Aged Men Cautioned on Fat: Heart Attacks Linked to Diet as well as Overweight and High Blood Pressure,” *New York Times*, October 24, 1959, 23.
 52 *the New York Times reported*: “Heart Unit Backs Reduction in Fat,” *New York Times*, December 11, 1960, 1.
 52 “whereas people once thought”: Jonathan Probber, “Is Nothing Sacred? Milk’s American Appeal Fades,” *New York Times*, February 18, 1987.
 52 “mass murder”: Quoted in William Borders, “New Diet Decried by Nutritionists: Dangers Are Seen in Low Carbohydrate Intake,” *New York Times*, July 7, 1965.
 52 *One article she wrote in 1985*: Jane E. Brody, “America Leans to a Healthier Diet,” *New York Times Magazine*, October 13, 1985.
 53 *his team identified . . . Zukel could find no difference*: William J. Zukel et al., “A Short-Term Community Study of the Epidemiology of Coronary Heart Disease: A Preliminary Report on the North Dakota Study,” *American Journal of Public Health and the Nation’s Health* 49, no. 12 (1959): 1630–1639.
 54 *In Ireland, researchers analyzed*: Aileen Finegan et al., “Diet and Coronary Heart Disease: Dietary Analysis on 100 Male Patients,” *American Journal of Clinical Nutrition* 21, no. 2 (1968): 143–148.
 54 *on fifty middle-aged women*: Aileen Finegan et al., “Diet and Coronary Heart Disease: Dietary Analysis on 50 Female Patients,” *American Journal of Clinical Nutrition* 21, no. 1 (1969): 8–9.

- 54 *Malhotra studied the disease*: S. L. Malhotra, "Epidemiology of Ischaemic Heart Disease in Southern India with Special Reference to Causation," *British Heart Journal* 29, no. 6 (1967): 898; S. L. Malhotra, "Geographical Aspects of Acute Myocardial Infarction in India with Special Reference to Patterns of Diet and Eating," *British Heart Journal* 29, no. 3 (1967): 337–344.
- 55 *"eat more fermented milk products"*: S. L. Malhotra, "Dietary Factors and Ischaemic Heart Disease," *American Journal of Clinical Nutrition* 24, no. 10 (1971): 1197.
- 55 *had a "strikingly low" . . . amounts of animal fats*: Clarke Stout et al., "Unusually Low Incidence of Death from Myocardial Infarction: Study of Italian American Community in Pennsylvania," *Journal of the American Medical Association* 188, no. 10 (1964): 845–849.
- 55 *The majority of the 179 Roseto men . . . the years of the survey*: Ibid.
- 55 *"extravagant worldwide publicity"*: Ancel Keys, "Arteriosclerotic Heart Disease in Roseto, Pennsylvania," *Journal of the American Medical Association* 195 no. 2 (1966): 137–139.
- 55 *Keys concluded that the Roseto data*: Ibid., 139.
- 56 *collected every study he could find*: Frank W. Lowenstein, "Epidemiologic Investigations in Relation to Diet in Groups Who Show Little Atherosclerosis and Are Almost Free of Coronary Ischemic Heart Disease," *American Journal of Clinical Nutrition* 15, no. 3 (1964): 175–186.
- 56 *The type of fat also varied dramatically*: Ibid.
- 56 *Resisting these "idols of the mind"*: Francis Bacon, *Novum Organum Scientiarum*, England, 1620, Book 1: XXXIV.
- 57 *Karl Popper, described*: Karl Popper, *Objective Knowledge: An Evolutionary Approach*, rev. ed. (Oxford: Clarendon Press, 1979), 81.
- 57 *Dozens of trials*: Early clinical trials that did not support the diet-heart hypothesis: A Research Committee, "Low-Fat Diet in Myocardial Infarction: A Controlled Trial," *Lancet* 2, no. 7411 (1965): 501–504; Research Committee to the Medical Research Council, "Controlled Trial of Soya-bean Oil in Myocardial Infarction," *Lancet* 2, no. 7570 (1968): 693–699; J. M. Woodhill et al., "Low Fat, Low Cholesterol Diet in Secondary Prevention of Coronary Heart Disease," *Advances in Experimental Medicine and Biology* 109 (1978): 317–330; Marvin L. Bierenbaum et al., "Modified-Fat Dietary Management of the Young Male with Coronary Disease," *Journal of the American Medical Association* 202, no. 13 (1967): 59–63.
- 58 *Ahrens was objecting*: Ahrens et al., "Dietary Control of Serum Lipids in Relation to Atherosclerosis," 1906.
- 58 *"Silic acid chromatography"*: Jules Hirsch and Edward H. Ahrens, Jr., "The Separation of Complex Lipide Mixtures by Use of Silic Acid Chromatography," *Journal of Biological Chemistry* 233, no. 2 (1958): 311–320.
- 58 *consistently revealed that these triglycerides*: Edward H. Ahrens, Jr. et al., "The Influence of Dietary Fats on Serum-Lipid Levels in Man," *Lancet* 272, no. 6976 (1957): 943–953; Edward H. Ahrens, Jr. et al., "Carbohydrate-Induced and Fat-Induced Lipemia," *Transactions of the Association of American Physicians* 74 (1961): 134–146; J. L. Knittle and Edward H. Ahrens, Jr., "Carbohydrate Metabolism in Two Forms of Typerglyceridemia," *Journal of Clinical Investigation* 43 (1964): 485–495; Edward H. Ahrens, Jr., "Carbohydrates, Plasma Triglycerides, and Coronary Heart Disease," *Nutrition Reviews* 44, no. 2 (1986): 60–64.

- 58 *high triglyceride levels were far more common*: Margaret J. Albrink, "The Significance of Serum Triglycerides," *Journal of the American Dietetic Association* 42 (1963): 29–31.
- 58 *a handful of researchers confirmed*: P. T. Kuo et al., "Dietary Carbohydrates in Hyperlipemia (Hyperglyceridemia); Hepatic and Adipose Tissue Lipogenic Activities," *American Journal of Clinical Nutrition* 20, no. 2 (1967): 116–125; L. E. Bottiger and L. A. Carlson, "Serum Glucoproteins in Men with Myocardial Infarction," *Journal of Atherosclerosis Research* 1 (1961): 184–188.
- 58 *Ahrens found that triglycerides*: Edward H. Ahrens, Jr. et al., "Carbohydrate-Induced and Fat-Induced Lipemia," *Transactions of the Association of American Physicians* 74 (1961): 136.
- 58 *whereas a contrasting vial*: Ibid.
- 59 *"normal chemical process which occurs"*: Ibid., 134.
- 59 *impoverished people in rural Japan . . . were found to have low triglycerides*: Ancel Keys and Noboru Kimora, "Diets of Middle-Aged Farmers in Japan," *American Journal of Clinical Nutrition* 23, no. 2 (1970): 219.
- 59 *Albrink sketched out a scenario*: Margaret J. Albrink, "Triglycerides, Lipoproteins, and Coronary Artery Disease," *Archives of Internal Medicine* 109, no. 3 (1962): 345–359.
- 60 *"But let's talk . . . No, we're researching this" . . . "He always opposed any statement"*: Jeremiah Stamler, interview with author, April 22, 2009.
- 61 *"And Yudkin!" . . . "scoundrel"*: Ibid.
- 61 *Raymond Reiser wrote*: Raymond Reiser, "Saturated Fat in the Diet and Serum Cholesterol Concentration: A Critical Examination of the Literature," *American Journal of Clinical Nutrition* 26, no. 5 (1973): 524–555.
- 61 *a twenty-four page reply*: Ancel Keys, Francisco Grande, and Joseph T. Anderson, "Bias and Misrepresentation Revisited: 'Perspective' on Saturated Fat," *American Journal of Clinical Nutrition* 27, no. 2 (1974): "distorting mirrors," 188; "typical distortion," 191; "16-word sentence," 189; "pompously states," 209; "completely ignores," 209; "no comprehension," 209.
- 61 *he defended the . . . short letter*: Raymond Reiser, "Saturated Fat: A Rebuttal," *American Journal of Clinical Nutrition* 27, no. 3 (1974): 229.
- 62 *wound up confirming his findings*: Kurt Biss et al., "Some Unique Biologic Characteristics of the Masai of East Africa," *New England Journal of Medicine* 284, no. 13 (1971): 694–699.
- 62 *cholesterol numbers were fully a quarter higher*: José Day et al., "Anthropometric, Physiological and Biochemical Differences between Urban and Rural Maasai," *Atherosclerosis* 23, no. 2 (1976): 357–361.
- 62 *"nomads have no relevance"*: Ancel Keys, "Coronary Heart Disease—The Global Picture," *Atherosclerosis* 22, no. 2 (1975): 153.
- 62 *he thought were a better reference point*: Ancel Keys and Margaret Keys, *How to Eat Well and Stay Well the Mediterranean Way* (Garden City, NY: Doubleday, 1975), xi.
- 63 *"a path of garlands" . . . "And what a fall!"*: Vihjalmur Stefansson, *The Fat of the Land*, engl. ed. of *Not by Bread Alone* (1946, repr., New York: Macmillan, 1956), xxx.
- 63 *"bizarre manner of life" . . . "on blubber" . . . "no grounds" . . . "demonstrate an exception"*: Ancel Keys, "Diet and the Epidemiology of Coronary Heart Disease," *Journal of the American Medical Association* 164, no. 17 (1957): 1913.

- 63 “good or bad for you?” . . . “‘choice’ cuts”: Fredrick J. Stare, Comment in *The Fat of the Land*, xxxi.
- 64 ends by recommending: Ibid., xii.
- 64 announced their first big discovery: William B. Kannel et al., “Factors of Risk in Development of Coronary Heart Disease—Six-Year Follow-up Experience. The Framingham Study,” *Annals of Internal Medicine* 55, no. 1 (1961): 33–50.
- 65 “somehow intimately related”: “Findings of Framingham Diet Study Clarified,” *The News*, Framingham-Natick, Friday, October 30, 1970, 36.
- 65 total cholesterol was not nearly as strong: Keaven M. Anderson, William P. Castelli, Daniel Levy, “Cholesterol and Mortality: 30 Years of Follow-up from the Framingham Study,” *Journal of the American Medical Association* 257 no. 16 (1987): 2176–2180.
- 65 could be found: Carl C. Seltzer, “The Framingham Heart Study Shows No Increases in Coronary Heart Disease Rates from Cholesterol Values of 205–264 mg/dL,” *Giornale Italiano di Cardiologia* (Padua) 21, no. 6 (1991): 683.
- 65 In fact, half of the people . . . : Anderson, Castelli, and Levy, “Cholesterol and Mortality.”
- 66 “There is an 11% increase”: Ibid., 2176.
- 66 many large trials have found similar results: Among them are M. M. Gertler et al., “Long-Term Follow-up Study of Young Coronary Patients,” *American Journal of Medical Sciences* 247, no. 2 (1964): 153; Charles W. Frank, Eve Weinblatt, and Sam Shapiro, “Angina Pectoris in Men,” *Circulation* 47, no. 3 (1973): 509–517; Ristead Mulcahy et al., “Factors Influencing Long-Term Prognosis in Male Patients Surviving a First Coronary Attack,” *British Heart Journal* 37, no. 2 (1975): 158–165.
- 66 study that Mann conducted: George V. Mann et al., “Diet and Cardiovascular Disease in the Framingham Study I. Measurement of Dietary Intake,” *American Journal of Clinical Nutrition* 11, no. 3 (1962): 200–225.
- 66 “No relationship found”: William B. Kannel and Tavia Gordon, “The Framingham Study: an Epidemiological Investigation of Cardiovascular Disease,” Section 24, unpublished paper (Washington, DC: National Heart, Lung, and Blood Institute, 1987).
- 66 “That went over . . . wanted us to find”: George V. Mann, interview with author, October 5, 2005.
- 67 “a form of cheating”: George V. Mann, “A Short History of the Diet/Heart Hypothesis,” in *Coronary Heart Disease: The Dietary Sense and Nonsense. An Evaluation by Scientists*, ed. George V. Mann for the Veritas Society (London: Janus, 1993), 9.
- 67 “the more saturated fat one ate”: William P. Castelli, “Concerning the Possibility of a Nut . . .” *Archives of Internal Medicine* 152, no. 7 (1992): 1371–1372 (emphasis added).
- 67 the problem must have been one of imprecise collection: William P. Castelli, interview with author, March 16, 2007.
- 67 An article he wrote: George V. Mann, “Diet-Heart: End of an Era,” *New England Journal of Medicine* 297, no. 12 (1977): 644–650.
- 67 “pretty devastating . . . she was right . . . forceful and persuasive”: Mann, interview.
- 68 they jointly reported “to the nation”: “National Heart, Lung, & Blood Institute: Important Events in NHLBI History,” NIH Almanac 1999, <http://www.nih.gov/about/almanac/archive/1999/organization/nhlbi/history.html>.
- 68 AHA president worked closely: Moore, *Fighting for Life*, 99 and 271.

- 69 *the same names continually come up*: “National Heart, Lung, & Blood Institute: Important Events in NHLBI History,” *NIH Almanac* 1999, last accessed February 15, 2014, <http://www.nih.gov/about/almanac/archive/1999/organization/nhlbi/history.html>.
- 70 AHA presidents “almost routinely” directed: Moore, *Fighting for Life*, 98. See also, 271–276.
- 70 *White helped found*: “The International Society of Cardiology (ISC) and CVD Epidemiology,” Division of Epidemiology & Community Health of the School of Public Health, University of Minnesota, <http://www.epi.umn.edu/cvdepi/essay.asp?id=186>.
- 70 *\$1.5 billion . . . heart disease research*: Henry Blackburn, “Ancel Keys Lecture: The Three Beauties, Bench, Clinical, and Population Research,” *Circulation* 86, no. 4 (1992), 1323.
- 70 *\$100 million a year toward original research*: Jan L. Breslow, “Why You Should Support the American Heart Association!” *Circulation* 94, no. 11 (1996): 3016–3022.
- 70 *“This was a daunting task”*: George V. Mann, “A Short History of the Diet/Heart Hypothesis,” 12.
- 71 *“almost embarrassingly high number”*: “Coronary Heart Disease and Carbohydrate Metabolism,” editorial, *Journal of the American Medical Association* 201, no. 13 (1967): 164–165.
- 71 *“supported the dogma” . . . “more political than scientific”*: George V. Mann, “Coronary Heart Disease—The Doctor’s Dilemma,” *American Heart Journal* 96, no. 5 (1978), 569.

4. The Flawed Science of Saturated versus Polyunsaturated Fats

- 72 *“causal relationships are not claimed”*: Ancel Keys et al., “The Diet and 15-Year Death Rate in the Seven Countries Study,” *American Journal of Epidemiology* 124, no. 6 (1986): 903–915.
- 73 *Anti-Coronary Club*: Norman Jolliffe, S. H. Rinzler, and M. Archer, “The Anti-Coronary Club: Including a Discussion of the Effects of a Prudent Diet on the Serum Cholesterol Level of Middle-aged Men,” *American Journal of Clinical Nutrition* 7, no. 4 (1959): 451–462.
- 73 *and instructed them to reduce their consumption*: George Christakis et al., “Summary of the Research Activities of the Anti-Coronary Club,” *Public Health Reports* 81, no. 1 (1966): 64–70.
- 74 *reported the New York Times*: Robert K. Plumb, “Diet Linked to Cut in Heart Attacks,” *New York Times*, May 17, 1962, 39.
- 74 *“somewhat unusual” . . . risk factors . . . result was buried*: George Christakis et al., “Effect of the Anti-Coronary Club Program on Coronary Heart Disease Risk-Factor Status,” *Journal of the American Medical Association* 198, no. 6 (1966): 597–604.
- 75 *Los Angeles Veterans Trial*: Seymour Dayton et al., “A Controlled Clinical Trial of a Diet High in Unsaturated Fat in Preventing Complications of Atherosclerosis,” *Circulation* 40, no. 1, suppl. 2 (1969): II-1.
- 75 *died of cancer*: Morton Lee Pearce and Seymour Dayton, “Incidence of Cancer in Men on a Diet High in Polyunsaturated Fat,” *Lancet* 297, no. 7697 (1971): 464–467.
- 75 *“Was it not possible” . . . “that a diet”*: Dayton et al., “A Controlled Clinical Trial of a Diet High in Unsaturated Fat,” II-2.

- 75 *In fact, the upward curve of vegetable oil consumption*: Tanya Blasbalg et al., “Changes in Consumption of Omega-3 and Omega-6 Fatty Acids in the United States during the 20th Century,” *American Journal of Clinical Nutrition* 93, no. 5 (2011): 950–962.
- 76 *The Lancet, wrote a withering critique*: “Diet and Atherosclerosis,” editorial, *Lancet* 294, no. 7627 (1969): 939–940.
- 76 *defended his study in a letter*: Pearce and Dayton, “Incidence of Cancer in Men on a Diet High in Polyunsaturated Fat,” 464–467.
- 76 *a top nutrition expert*: Barbara V. Howard, interview with author, June 13, 2005.
- 77 *“exerted a substantial preventive effect”*: Osmo Turpeinen et al., “Dietary Prevention of Coronary Heart Disease: The Finnish Mental Hospital Study,” *International Journal of Epidemiology* 8, no. 2 (1979): 99–118.
- 77 *But a closer look reveals*: Matti Miettinen et al., “Effect of Cholesterol-Lowering Diet on Mortality from Coronary Heart-Disease and Other Causes: A Twelve-Year Clinical Trial in Men and Women,” *Lancet* 300, no. 7782 (1972): 835–838.
- 77 *criticize the study in a letter*: M. Halperin, Jerome Cornfield, and S. C. Mitchell, “Letters to the Editor: Effect of Diet on Coronary-Heart-Disease Mortality,” *Lancet* 302, no. 7826 (1973): 438–439.
- 77 *“not ideal” . . . “may perhaps never be performed” . . . “we do not see”*: Matti Miettinen et al., “Effect of Diet on Coronary-Heart-Disease Mortality,” *Lancet* 302, no. 7840 (1973): 1266–1267.
- 78 *divided his subjects into two groups*: Paul Leren, “The Effect of Plasma Cholesterol Lowering Diet in Male Survivors of Myocardial Infarction: A Controlled Clinical Trial,” *Acta Medica Scandinavica Supplementum* 466 (1966): 1–92.
- 78 *a traditional Norwegian diet . . . 40 percent fat*: Ibid., 35.
- 78 *“cholesterol-lowering” diet*: Ibid., 27.
- 78 *the diets contained about the same amount of fat*: Ibid., 82.
- 78 *“not with enthusiasm”*: Ibid., 30.
- 78 *Leren published his findings*: Ibid.
- 78 *eating a great deal of hard margarine and hydrogenated fish oils*: Ibid., 35.
- 81 *Swift & Co. would make custom margarines*: National Diet-Heart Study Research Group, “The National Diet Heart Study Final Report,” *American Heart Association Monograph* 18 in *Circulation* 37 and 38, suppl. 1 (1968): Appendix 1b: I-7.
- 81 *Stamler remembers*: Jeremiah Stamler, interview with author, April 22, 2009.
- 81 *Hamburger patties and hot dogs . . . two normal eggs*: National Diet-Heart Study Research Group, “The National Diet Heart Study Final Report,” I-100–I-116.
- 81 *various confirmation tests*: Ibid., I-10–I-11.
- 81 *“A housewife would order . . . done so well”*: Stamler, interview, April 22, 2009.
- 82 *researchers studied the Israelis*: S. H. Blondheim et al., “Unsaturated Fatty Acids in Adipose Tissue of Israeli Jews,” *Israel Journal of Medical Sciences* 12, no. 7 (1976): 658.
- 82 *to promoting a “prudent” diet*: Stamler, interview, April 22, 2009.
- 82 *according to two scholarly estimates*: Blasbalg et al., “Changes in Consumption of Omega-3 and Omega-6 Fatty Acids,” 950–962; Penny M. Kris-Etherton et al., “Polyunsaturated Fatty Acids in the Food Chain in the United States,” *American Journal of Clinical Nutrition* 71, no. 1, suppl. (2000): 179S–186S.

- 83 *AHA currently recommends*: William S. Harris et al., “Omega-6 Fatty Acids and Risk for Cardiovascular Disease: A Science Advisory from the American Heart Association Nutrition Subcommittee of the Council on Nutrition, Physical Activity, and Metabolism; Council on Cardiovascular Nursing; and Council on Epidemiology and Prevention,” *Circulation* 199, no. 6 (2009): 902–907.
- 83 *more than a few experiments*: Studies are listed in Hans Kaunitz and Ruth E. Johnson, “Exacerbation of the Heart and Liver Lesions in Rats by Feeding Various Mildly Oxidized Fats,” *Lipids* 8, no. 6 (1973): 329–336. The most well-known experiment was G. A. Rose, W. B. Thompson, and R. T. Williams, “Corn Oil in Treatment of Ischaemic Heart Disease,” *British Medical Journal* 1, no. 5449 (1965): 1531–1533.
- 84 *cottonseed and some sesame oils . . . Thomas Jefferson tried*: David S. Shields, “Prospecting for Oil,” *Gastronomica* 10, no. 4 (2010): 25–34.
- 85 *“has become a stampede”*: Karl Robe, “Focus Gets Clearer on Confused Food Oil Picture,” *Food Processing* (December 1961): 62.
- 85 *“higher and higher amounts of polyunsaturated oils”*: Ibid.
- 86 *Stamler reissued his 1963 book . . . “significant” research support*: Alton Blakeslee and Jeremiah Stamler, *Your Heart Has Nine Lives: Nine Steps to Heart Health* (New York: Pocket Books, 1966).
- 86 *“must make alliances with”*: Stamler, interview, April 22, 2009.
- 88 *massive advertising campaign*: Gary R. List and M. A. Jackson, “Giants of the Past: The Battle over Hydrogenation (1903–1920),” *Inform* 18, no. 6 (2007): 404.
- 88 *“new” . . . “better” . . . “shock . . . less progressive” . . . modern woman . . . “Grandmother” . . . “spinning wheel”*: Procter & Gamble Company, “The Story of Crisco,” in *The Story of Crisco: 250 Tested Recipes* by Marion Harris Neil (Cincinnati, OH: Procter & Gamble, 1914), 6 (italics in original).
- 88 *easier to digest*: Ibid., 5.
- 88 *“sparkling bright rooms” . . . “metal surfaces”*: Ibid., 10.
- 88 *“lardy” flavor . . . “true taste”*: Ibid., 11.
- 88 *“Kitchen odors”*: Ibid., 12.
- 88 *forty times in merely four years*: F. J. Massiello, “Changing Trends in Consumer Margarines,” *Journal of the American Oil Chemists Society* 55, no. 2 (1978): 262–265.
- 89 *one and a half billion . . . sixty-five plants . . . eighth-ranking . . . always in the lead*: “Focus,” *Journal of the American Oil Chemists Society* 61, no. 9 (1984): 1434.
- 89 *“‘Crisco’ written in their place”*: Procter & Gamble, in *The Story of Crisco*, 6.
- 89 *“the ingenuity of depraved human genius”*: Quoted in Richard A. Ball and J. Robert Lilly, “The Menace of Margarine: The Rise and Fall of a Social Problem,” *Social Problems* 29, no. 5 (1982): 492.
- 89 *to call margarine manufacturers “swindlers”*: Eugene O. Porter, “Oleomargarine: Pattern for State Trade Barriers,” *Southwestern Social Science Quarterly* 29 (1948): 38–48.
- 90 *“In accordance with Title 6”*: In S. F. Riepma, *The Story of Margarine* (Washington, DC: Public Affairs Press, 1970): 51.
- 90 *Mazola margarine advertised itself*: “Mazola Corn Oil (1960)—Classic TV Commercial,” YouTube, accessed January 4, 2014, <http://www.youtube.com/watch?v=Y7PW-0jUqWeA>.

- 90 *early margarines contained far more trans fats*: Walter H. Meyer, letter to Fred A. Kummerow, May 22, 1967, in author's possession.
- 91 *nearly every major food corporation*: National Diet-Heart Study Research Group, "National Diet Heart Study Final Report," I-312–I-314.
- 92 *"everything but the kitchen sink"*: Jeremiah Stamler, interview with author, May 1, 2009.
- 93 *The results, announced in September 1982*: Multiple Risk Factor Intervention Trial Research Group, "Multiple Risk Factor Intervention Trial: Risk Factor Changes and Mortality Results," *Journal of the American Medical Association* 248, no. 12 (1982): 1465–1477.
- 93 *floated various possible explanations*: *Ibid.*, 1476.
- 93 *MRFIT triggered widespread comment*: For example, George D. Lundberg, "MRFIT and the Goals of the Journal," *Journal of the American Medical Association* 248, no. 12 (1982): 1501.
- 93 *the treatment group was found to have*: Barbara J. Shaten et al., "Lung Cancer Mortality after 16 Years in MRFIT Participants in Intervention and Usual-Care Groups: Multiple Risk Factor Intervention Trial," *Annals of Epidemiology* 7, no. 2 (1997): 125–136.
- 93 *"I don't know!" . . . "Not rationalized!"*: Stamler, interview, May 1, 2009.
- 93 *"frail but on fire"*: Ronald M. Krauss, interview with author, July 2, 2012.
- 94 *One of the things that Stamler told me*: Stamler, interview, April 22, 2009.
- 94 *found a link between lowering cholesterol*: These included Pearce and Dayton, "Incidence of Cancer in Men on a Diet High in Polyunsaturated Fat," 464–467; Uris E. Nydegger and René E. Butler, "Serum Lipoprotein Levels in Patients with Cancer," *Cancer Research* 32, no. 8 (1972): 1756–1760; Michael Francis Oliver et al., "A Co-operative Trial in the Primary Prevention of Ischaemic Heart Disease Using Clofibrate. Report from the Committee of Principal Investigators," *Heart* 40, no. 10 (1978), 1069–1118; Robert Beaglehole et al., "Cholesterol and Mortality in New Zealand Maoris," *British Medical Journal* 280, no. 6210 (1980): 285–287; J. D. Kark, A. H. Smith, and C. G. Hames, "The Relationship of Serum Cholesterol to the Incidence of Cancer in Evans County, Georgia," *Journal of Chronic Diseases* 33, no. 5 (1980): 311–322; M. R. Garcia-Palmieri et al., "An Apparent Inverse Relationship between Serum Cholesterol and Cancer Mortality in Puerto Rico," *American Journal of Epidemiology* 114, no. 1 (1981): 29–40; Grant N. Stemmerman et al., "Serum Cholesterol and Colon Cancer Incidence in Hawaiian Japanese Men," *Journal of the National Cancer Institute* 67, no. 6 (1981): 1179–1182; Seth R. Miller et al., "Serum Cholesterol and Human Colon Cancer," *Journal of the National Cancer Institute* 67, no. 2 (1981): 297–300; Djordje Kozarevic et al., "Serum Cholesterol and Mortality: The Yugoslavia Cardiovascular Disease Study," *American Journal of Epidemiology* 114, no. 1 (1981): 21–28.
- 94 *principally for colon cancer*: Geoffrey Rose et al., "Colon Cancer and Blood-Cholesterol," *Lancet* 303, no. 7850 (1974): 181–183.
- 94 *three times more likely to get colon cancer*: Roger R. Williams et al., "Cancer Incidence by Levels of Cholesterol," *Journal of the American Medical Association* 245, no. 3 (1981): 247–252.
- 94 *baseline level of concern*: Elias B. Gammal, Kenneth K. Carroll, and Earl R. Plunkett, "Effects of Dietary Fat on the Uptake and Clearance of 7,12-Dimethylbenz(α)anthracene by Rat Mammary Tissue," *Cancer Research* 28, no. 2 (1968): 384–385.

- 94 *Another early study that raised a health concern about corn oil was:* Arthur J. Patek et al., “Cirrhosis-Enhancing Effect of Corn Oil,” *Archives of Pathology* 82, no. 6 (1966): 596–601.
- 94 *NIH investigators found:* Hirotsuga Ueshima, Minoru Iida, and Yoshio Komachi, “Letter to the Editor: Is It Desirable to Reduce Total Serum Cholesterol Level as Low as Possible?,” *Preventive Medicine* 8, no. 1 (1979): 104–105.
- 94 *evidence on the topic:* Manning Feinleib, “On a Possible Inverse Relationship Between Serum Cholesterol and Cancer Mortality,” *American Journal of Epidemiology* 114, no. 1 (1981): 5–10; Manning Feinleib, “Summary of a Workshop on Cholesterol and Non-cardiovascular Disease Mortality,” *Preventive Medicine* 11, no. 3 (1982): 360–367.
- 95 *clearly dismayed . . . “even more puzzling”:* Manning Feinleib, interview with author, April 20, 2009.
- 95 *it looked especially bad for healthy men:* Stephen B. Hulley, Judith M. B. Walsh, and Thomas B. Newman, “Health Policy on Blood Cholesterol. Time to Change Directions,” *Circulation* 86, no. 3 (1992): 1026–1029.
- 95 *When I mentioned all this to Stamler:* Stamler, interview, May 1, 2009.
- 96 *Conducted by the biochemist Ivan Frantz:* Ivan D. Frantz et al., “Test of Effect of Lipid Lowering by Diet on Cardiovascular Risk,” *Arteriosclerosis, Thrombosis, and Vascular Biology* 9, no. 1 (1989): 129–135.
- 96 *researchers were unable to find:* Ibid.
- 96 *“disappointed in the way it came out”:* Quoted in Gary Taubes, *Good Calories, Bad Calories: Fats, Carbs, and the Controversial Science of Diet and Health* (New York: Alfred A. Knopf, 2007), 38.
- 97 *But the results . . . “with risk of death”:* Richard B. Shekelle et al., “Diet, Serum Cholesterol, and Death from Coronary Heart Disease: The Western Electric Study,” *New England Journal of Medicine* 304, no. 2 (1981): 68.
- 97 *“It had no INDEPENDENT effect”:* Stamler, interview, April 22, 2009.
- 97 *was to worship God:* Jack H. Medalie et al., “Five-Year Myocardial Infarction Incidence—II. Association of Single Variables to Age and Birthplace,” *Journal of Chronic Disease* 26, no. 6 (1973): 325–349.
- 98 *other large epidemiological study . . . near-vegetarian diet:* Noboru Kimura, “Changing Patterns of Coronary Heart Disease, Stroke, and Nutrient Intake in Japan,” *Preventive Medicine* 12, no. 1 (1983): 222–227; Hirotsugu Ueshima, Kozo Tatara, and Shintaro Asakura, “Declining Mortality from Ischemic Heart Disease and Changes in Coronary Risk Factors in Japan, 1956–1980,” *American Journal of Epidemiology* 125, no. 1 (1987): 62–72. I am indebted to Uffe Ravnskov, *The Cholesterol Myths: Exposing the Fallacy that Saturated Fat and Cholesterol Cause Heart Disease* (Washington, DC: New Trends Publishing, 2000), for digging up these studies on Japan.
- 98 *lower rates of heart disease than their fellow:* Hiroo Kato et al., “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California,” *American Journal of Epidemiology* 97, no. 6 (1973): 372–385; M. G. Marmot et al., “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Prevalence of Coronary and Hypertensive Heart Disease and Associated Risk Factors,” *American Journal of Epidemiology* 102, no. 6 (1975): 514–525.

- 99 “sub-sample of the cohort in San Francisco”: Kato et al., “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men,” 373.
- 99 *clearly not the “same method”*: Jeanne L. Tillotson et al., “Epidemiology of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii, and California: Methodology for Comparison of Diet,” *American Journal of Clinical Nutrition* 26, no. 2 (1973): 117–184.
- 99 *higher rates of stroke*: Robert M. Worth et al., “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Mortality,” *American Journal of Epidemiology* 102, no. 6 (1975): 481–490; Abraham Kagan et al., “Trends in Stroke Incidence and Mortality in Hawaiian Japanese Men,” *Stroke* 25, no. 6 (1994): 1170–1175; on the relationship to animal fat, see Y. Takeya, J. S. Popper, Y. Shimizu, H. Kato, G. G. Rhoads, and Abraham Kagan, “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Incidence of Stroke in Japan and Hawaii,” *Stroke* 15, no. 1 (1994): 15–23.
- 100 *higher rates of fatal cerebral hemorrhages*: Heizo Tanaka et al., “Risk Factors for Cerebral Hemorrhage and Cerebral Infarction in a Japanese Rural Community,” *Stroke* 13, no. 1 (1982): 62–73.
- 100 *attempted to dismiss these findings*: Hirotsugu Ueshima, Minoru Iida, and Yoshio Komachi, “Letter to the Editor: Is It Desirable to Reduce Total Serum Cholesterol Level as Low as Possible?” *Preventive Medicine* 8, no. 1 (1979): 104–111; for replies, see Henry Blackburn, Ancel Keys, and David R. Jacobs, *Preventive Medicine* 8, no. 1 (1979): 109; William Kannel, *Preventive Medicine* 8, no. 1 (1979): 106–107.
- 100 *have endured until today in Japan*: T. Tanaka and T. Okamura, “Blood Cholesterol Level and Risk of Stroke in Community-Based or Worksite Cohort Studies: A Review of Japanese Cohort Studies in the Past 20 Years,” *Keio Journal of Medicine* (Tokyo) 61, no. 3 (2012): 79–88.
- 100 The Lancet *took stock*: “Can I Avoid a Heart Attack?,” editorial, *Lancet* 303, no. 7858 (1974): 605.
- 100 “very big emotional component” . . . “lowering cholesterol”: Michael Oliver, interview with author, May 1, 2009.
- 101 “it was not scientific”: A. Gerald Shaper, Interview with Henry Blackburn, in “Preventing Heart Attack and Stroke: A History of Cardiovascular Disease Epidemiology,” last accessed February 14, 2014, <http://www.epi.umn.edu/cvdepi/interview.asp?id=64>.
- 101 “no proof that such activity offsets”: “Can I Avoid a Heart Attack?,” 605.
- 101 “cure should not be worse”: *Ibid.*, 607.
- 101 *In fact, Seymour Dayton was concerned*: Dayton et al., “A Controlled Clinical Trial of a Diet High in Unsaturated Fat,” II-57.
- 101 *Experts now lament*: Martijn B. Katan, Scott M. Grundy, and Walter C. Willett, “Should a Low-Fat, High-Carbohydrate Diet Be Recommended for Everyone? Beyond Low-Fat Diets,” *New England Journal of Medicine* 337, no. 8 (1997): 563–566.
- 102 “I sincerely believe we should not”: Edward H. Ahrens, Jr., “Drugs Spotlight Program: The Management of Hyperlipidemia: Whether, Rather than How,” *Annals of Internal Medicine* 85, no. 1 (1976): 92.

- 102 *such “unmanageable proportions”*: Hans Kaunitz, “Importance of Lipids in Arteriosclerosis: An Outdated Theory,” in Select Committee on Nutrition and Human Needs of the United States Senate, *Dietary Goals for the United States—Supplemental Views* (Washington, DC: US Government Printing Office, 1977): 42–54.
- 102 *according to cholesterol expert Daniel Steinberg*: Daniel Steinberg, “An Interpretive History of the Cholesterol Controversy. Part II. The Early Evidence Linking Hypercholesterolemia to Coronary Disease in Humans,” *Journal of Lipid Research* 46, no. 2 (2005): 189.

5. The Low-Fat Diet Goes to Washington

- 104 *previously dealt with issues of hunger*: William J. Broad, “NIH Deals Gingerly with Diet-Disease Link,” *Science* 204, no. 4398 (1979): 1175–1178.
- 105 *Mottern found them objectionable*: Nick Mottern, interview with author, March 25, 2009.
- 105 *And he believed the meat industry to be wholly corrupt*: Mottern, interview.
- 105 *In his eyes, the controversy pitched*: Mottern, interview.
- 105 *“good guy versus bad guy”*: Marshall Matz, interview with author, March 29, 2009.
- 105 *“I admired them”*: Mottern, interview.
- 108 *investigators reported that the Seventh-day Adventist men*: Roland L. Phillips et al., “Coronary Heart Disease Mortality among Seventh-Day Adventists with Differing Dietary Habits: A Preliminary Report,” *American Journal of Clinical Nutrition* 31, no. 10 (1978): S191–S198.
- 108 *Women, by contrast, saw no benefit*: Paul K. Mills et al., “Cancer Incidence among California Seventh-Day Adventists, 1976–1982,” *American Journal of Clinical Nutrition* 59, no. 5 (1994): 1136S–1142S.
- 108 *this variance alone could have explained*: Rekha Garg, Jennifer H. Madans, and Joel C. Kleinman, “Regional Variation in Ischemic Heart Disease Incidence,” *Journal of Clinical Epidemiology* 45, no. 2 (1992): 149–156.
- 108 *Even the study director acknowledged*: Gary E. Fraser, Joan Sabaté, and W. Lawrence Beeson, “The Application of the Results of Some Studies of California Seventh-Day Adventists to the General Population,” *Archives of Internal Medicine* 115, no. 4 (1993): 533.
- 109 *“Risks: More Red Meat, More Mortality”*: Nicholas Bakalar, “Risks: More Red Meat, More Mortality,” *New York Times*, March 12, 2012.
- 109 *a research finding that just three*: An Pan et al., “Red Meat Consumption and Mortality: Results from 2 Prospective Cohort Studies,” *Archives of Internal Medicine* 172, no. 7 (2012): 555–563.
- 110 *the increase in the risk of dying*: Calculated by Zoë Harcombe, “Red Meat & Mortality & the Usual Bad Science,” Because Everything You Think About Obesity Is Wrong (blog), March 13, 2012, last accessed February 13, 2014, http://www.zoeharcombe.com/2012/03/red-meat-mortality-the-usual-bad-science/#_ednref2.
- 110 *the top meat eaters were also found*: Pan et al., “Red Meat Consumption and Mortality,” 557.
- 111 *statisticians generally agree*: Described in Gary Taubes, “Do We Really Know What Makes Us Healthy?” *New York Times Magazine*, September 16, 2007.

- 111 *the reported difference*: World Cancer Research Fund and the American Institute for Cancer Research, *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective* (Washington, DC: American Institute for Cancer Research, 2007), 116–128.
- 111 *“convincing evidence”* . . . *Cancer Institute itself*: Nancy Nelson, “Epidemiology in a Nutshell,” *Benchmarks*, online publication of the National Cancer Institute, July 8, 2002, last accessed February 13, 2014, <http://benchmarks.cancer.gov/2002/07/epidemiology-in-a-nutshell>; on “convincing evidence,” see World Cancer Research Fund and the American Institute for Cancer Research, *Food, Nutrition, Physical Activity, and the Prevention of Cancer*, 116.
- 111 *Experts lambasted*: A. Stewart Truswell, “Problems with Red Meat in the WCRF2,” *American Journal of Clinical Nutrition* 89, no. 4 (2009): 1274–1275; Hans Konrad Biesalski, “Meat and Cancer: Meat as a Component of a Healthy Diet,” *European Journal of Clinical Nutrition* 56, no. 1, suppl. (2002): S2–S11.
- 112 *“Our diets have changed radically”*: Select Committee on Nutrition and Human Needs of the United States Senate, *Dietary Goals for the United States* (Washington, DC: US Government Printing Office, 1977): 1.
- 112 *“rich in meat”* . . . *“linked to heart disease”*: *Ibid.*, 2.
- 112 *“killer diseases”*: *Ibid.*, 1.
- 112 *“Within this century”*: Jane E. Brody, *Jane Brody’s Good Food Book: Living the High Carbohydrate Way* (New York: W. W. Norton, 1985), 2.
- 112 *has been echoed*: Geoffrey Cannon, *Food and Health: The Experts Agree* (London: Consumers’ Association, 1992).
- 112 *“indifferent” farmers*: Quoted in Waverley Root and Richard De Rochemont, *Eating in America: A History* (New York: Morrow, 1976), 56.
- 113 *“treated with equal carelessness”*: *Ibid.*, 81.
- 113 *apparently so fat . . . now-extinct species*: *Ibid.*, 72.
- 114 *food included beef . . . does not mention*: *Ibid.*, 87.
- 114 *Infants were fed beef*: *Ibid.*, 132.
- 114 *Americans ate twice as much beef*: *Ibid.*, 192.
- 114 *precisely why observers regarded*: Thomas Cooper, *Some Information Respecting America* (London: J. Johnson, 1794).
- 114 *“bottom of the pork barrel”*: James Fenimore Cooper, *The Chainbearer* (Oxford: Oxford University, 1845), 82–83.
- 114 *relished the viscera . . . “highly esteemed”*: Root and De Rochemont, *Eating in America*, 40.
- 114 *A survey of eight thousand urban Americans*: Roger Horowitz, *Putting Meat on the American Table: Taste, Technology, Transformation* (Baltimore, MD: Johns Hopkins University Press, 2000), 12.
- 114 *A food budget published*: Cited in Richard Osborn Cummings, *The American and His Food: A History of Food Habits in the United States* (Chicago: University of Chicago Press, 1940): 264.
- 115 *Even slaves . . . “These sources do give us some confidence . . .”*: Horowitz, *Putting Meat on the American Table*, 12.
- 115 *Derived from a paper by Carrie R. Daniel, who used two sources of government data*: The USDA food-disappearance data and the NHANES twenty-four-hour recall survey, with

- data from 1999–2004. Carrie R. Daniel et al., “Trends in Meat Consumption in the USA,” *Public Health Nutrition* 14 no. 4 (2011): 575–583.
- 115 *chicken was considered . . . for their eggs*: Ibid., 103.
- 115 *according to different sources of government data*: Daniel et al., “Trends in Meat Consumption in the USA.”
- 116 *A recent USDA report says*: United States Department of Agriculture, *Agricultural Fact Book 2001–2002* (Washington, DC: US Government Printing Office, 2003): 15.
- 116 *repeated in the media*: For example Dan Charles, “The Making of Meat Eating America,” Morning Edition, National Public Radio, June 26, 2012.
- 117 *one eighteenth-century observer*: Isaac Weld, *Travels through the States of North America, and the Provinces of Upper and Lower Canada, During the Years 1795, 1796, and 1797* (London: printed for John Stockdale, Piccadilly, 1799), 91.
- 117 *“avoid leafy vegetables”*: Cummings, *The American and His Food*, 128.
- 117 *fruit and salad were avoided*: Root and De Rochemont, *Eating in America*, 130.
- 117 *“incorrect to describe Americans”*: Ibid., 232.
- 117 *most authoritative expert on heart disease*: Austin Flint, *A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart* (Philadelphia: Blanchard and Lea, 1859).
- 118 *Nor did William Osler*: William Osler, *The Principles and Practice of Medicine* (1892; repr. RareBooksClub.com, 2012).
- 118 *first clinical description*: William G. Rothstein, *Public Health and the Risk Factor: A History of an Uneven Medical Revolution*. Rochester Studies in Medical History 3 (Rochester, NY: University of Rochester Press, 2003).
- 118 *“plenty of them over 60”*: Paul D. White, “Coronary Heart Disease: Then and Now,” *Journal of the American Medical Association* 203, no. 9 (1968): 282.
- 118 *one fifth of the US population*: US Census Office, *Census Reports II: Twelfth Census of the United States, Taken in the Year 1900. Population, Part II* (Washington, DC: US Census Office, 1902), 4–5.
- 118 *compared the record on chest pain*: Leon Michaels, “Aetiology of Coronary Artery Disease: An Historical Approach,” *British Heart Journal* 28, no. 2 (1966): 258–264.
- 119 *caused meat sales in the United States to fall*: James Harvey Young, “The Long Struggle for the Law,” US Food and Drug Administration, last accessed February 13, 2014, <http://www.fda.gov/AboutFDA/WhatWeDo/History/CentennialofFDA/TheLongStrugglefortheLaw>.
- 119 *they did not revive for another twenty years*: Root and De Rochemont, *Eating in America*, 211.
- 119 *Fat intake did rise during those years*: Mohamed A. Antar, Margaret A. Ohlson, and Robert E. Hodges, “Perspectives in Nutrition: Changes in Retail Market Food Supplies in the United States in the Last Seventy Years in Relation to the Incidence of Coronary Heart Disease, with Special Reference to Dietary Carbohydrates and Essential Fatty Acids,” *American Journal of Clinical Nutrition* 14 (1964): 169–178.
- 120 *carved out an exception*: “Panel Stands by Its Dietary Goals but Eases a View on Eating Meat,” *New York Times*, January 24, 1978, A22.

- 120 *the report advised*: Select Committee on Nutrition and Human Needs, *Dietary Goals for the United States*, 6.
- 120 *“stood the test of time”*: Marshall Matz, interview with author, March 30, 2009.
- 121 *long been ignored*: Janet M. Levine, “Hearts and Minds: The Politics of Diet and Heart Disease,” in *Consuming Fears: The Politics of Product Risks*, ed. Henry M. Sapolsky (New York: Basic Books, 1986), 40–79.
- 121 *thirteen slices of bread*: Marian Burros, “In the Soda Pop Society—Can the American Diet Change for the Better?” *Washington Post*, September 28, 1978, E1.
- 122 *“taking a big chance”*: Mark Hegsted, “Washington—Dietary Guidelines,” Preventing Heart Attack and Stroke: A History of Cardiovascular Disease Epidemiology, ed. Henry Blackburn, last accessed January 29, 2014, http://www.epi.umn.edu/cvdepi/pdfs/Hegsted_guidelines.pdf.
- 122 *panel agreed upon*: Edward H. Ahrens, Jr., “Introduction,” *American Journal of Clinical Nutrition* 32, no. 12 (1979): 2627–2631.
- 122 *“The question . . . is . . .”*: Broad, “NIH Deals Gingerly with Diet-Disease Link,” 1176.
- 123 *“hedge their bets”*: Robert Levy, director of NHLBI, quoted in William J. Broad, “Academy Says Curb on Cholesterol Not Needed,” *Science* 208, no. 4450 (1980): 1355.
- 123 *“benefits could be expected”*: Broad, “NIH Deals Gingerly with Diet-Disease Link,” 1176.
- 123 Dietary Guidelines for Americans: USDA and US Department of Health and Human Services, *Nutrition and Your Health: Dietary Guidelines for Americans*, Home and Garden Bulletin No. 228 (Washington, DC: Science and Education Administration, 1980).
- 124 *The board had actually been solicited by the USDA*: Broad, “NIH Deals Gingerly with Diet-Disease Link,” 1175.
- 124 *“generally unimpressive results”*: National Research Council, Food and Nutrition Board, National Academy of Sciences, *Toward Healthful Diets* (Washington, DC: National Academy Press, 1980).
- 124 *“best in the world”*: Broad, “NIH Deals Gingerly with Diet-Disease Link,” 1175.
- 124 *US Surgeon General, who had responded*: US Public Health Service, Office of the Surgeon General, *Healthy People: The Surgeon General’s Report on Health Promotion and Disease Prevention*, US Public Health Service (1979).
- 125 *“academy were at odds!”*: Hegsted, “Washington—Dietary Guidelines.”
- 125 *There were front-page stories*: Jane E. Brody, “Panel Reports Healthy Americans Need Not Cut Intake of Cholesterol: Nutrition Board Challenges Notion That Such Dietary Change Could Prevent Coronary Heart Disease,” *New York Times*, May 28, 1980, A1; Susan Okie, “Farmers Are Gleeful, Heart Experts Quiver at Fat-Diet Findings,” *Washington Post*, May 29, 1980, A2.
- 125 *fit to editorialize*: “A Confusing Diet of Fact,” editorial, *New York Times*, June 3, 1980, A18; “Cholesterol Does Count,” editorial, *Washington Post*, June 2, 1980, A18.
- 125 MacNeil/Lehrer Report: “The Cholesterol Question,” *The MacNeil/Lehrer Report*, May 28, 1980.
- 125 *People magazine*: Barbara K. Mills, “The Nutritionist Who Prepared the Pro-Cholesterol Report Defends It Against Critics,” *People*, June 16, 1980, 58–64.
- 125 *The New York Times accused*: “Confusing Diet of Fact,” A18.

- 125 *The Times concluded*: Ibid.
- 125 *Times ran a front-page story*: Jane E. Brody, "Experts Assail Report Declaring Curb on Cholesterol Isn't Needed," *New York Times*, June 1, 1980, A1.
- 126 *Harper unapologetically in an interview*: Alfred E. Harper, interview with author, April 2, 2009.
- 126 *Critics called*: Quoted in "A Few Kind Words for Cholesterol," *Time*, June 9, 1980.
- 126 *held hearings on the report . . . reputation was raked*: Karen De Witt, "Scientists Clash on Academy's Cholesterol Advice," *New York Times*, June 20, 1980, A15; *National Academy of Sciences Report on Healthful Diets: Hearings before the House Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition of the Committee on Agriculture, House of Representatives*, 96th Congress, 2nd Session, 1980; *Dietary Guidelines for Americans: Hearings before the House Subcommittee on Agriculture, Rural Development and Related Agencies, Committee on Appropriations*, 96th Congress, 2nd Session, 1980.
- 127 *judged Science magazine*: Nicholas Wade, "Food Board's Fat Report Hits Fire," *Science* 209, no. 4453 (1980): 248.
- 127 *Washington Post editorial board*: "Cholesterol Does Count," *Washington Post*, June 2, 1980, 1.
- 128 *the LRC results*: LRC Study Group, "The Lipid Research Clinics Coronary Primary Prevention Trial Results. I: Reduction in Incidence of Coronary Heart Disease," *Journal of the American Medical Association* 251, no. 3 (1984): 351–364; LRC Study Group, "The Lipid Research Clinics Coronary Primary Prevention Trial Results. II: The Relationship of Reduction in Incidence of Coronary Heart Disease to Cholesterol Lowering," *Journal of the American Medical Association* 251, no. 3 (1984): 365–374.
- 129 *men whose cholesterol had gone down*: LRC Study Group, "The Lipid Research Clinics Coronary Primary Prevention Trial Results. I," 356.
- 129 *metanalysis of six cholesterol-lowering trials*: Matthew F. Muldoon, Stephen B. Manuck, and Karen A. Matthews, "Lowering Cholesterol Concentrations and Mortality: A Quantitative Review of Primary Prevention Trials," *British Medical Journal* 301, no. 6747 (1990): 309; on low-cholesterol and depression: Ju Young Shin, Jerry Suls, and René Martin, "Are Cholesterol and Depression Inversely Related? A Meta-Analysis of the Association between Two Cardiac Risk Factors," *Annals of Behavioral Medicine* 36, no. 1 (2008): 33–43; James M. Greenblatt, "Low Cholesterol and Its Psychological Effects: Low Cholesterol Is Linked to Depression, Suicide, and Violence," *Psychology Today*, June 10, 2011.
- 129 *Researchers have subsequently suggested*: Jess G. Fiedorowicz and William G. Haynes, "Cholesterol, Mood, and Vascular Health: Untangling the Relationship. Does Low Cholesterol Predispose to Depression and Suicide, or Vice Versa?" *Current Psychiatry* 9, no. 7 (2010).
- 129 *Other cholesterol-lowering studies*: Manning Feinleib, "On a Possible Inverse Relationship between Serum Cholesterol and Cancer Mortality," *American Journal of Epidemiology* 114, no. 1 (1981): 5–10; Manning Feinleib, "Summary of a Workshop on Cholesterol and Noncardiovascular Disease Mortality," *Preventive Medicine* 11, no. 3 (1982): 360–367.
- 129 *In addition, populations found to have very low cholesterol*: Tanaka et al., "Risk Factors for Cerebral Hemorrhage and Cerebral Infarction in a Japanese Rural Community"; Kagan

- et al., “Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Incidence of Stroke in Japan and Hawaii.”
- 129 *“Any statistician would turn in his badge”*: Quoted in Gina Kolata, “Heart Panel’s Conclusions Questioned,” *Science* 227, no. 4682 (1985): 41.
- 130 *“I can’t fully explain it and it worries”*: Ibid.
- 130 *represented a leap of faith*: Edward H. Ahrens, Jr., “The Diet-Heart Question in 1985: Has It Really Been Settled?” *Lancet* 1, no. 8437 (1985): 1086.
- 130 *Richard A. Kronmal to write*: Richard A. Kronmal, “Commentary on the Published Results of the Lipid Research Clinics Coronary Primary Prevention Trial,” *Journal of the American Medical Association* 253, no. 14 (1985): 2091.
- 130 *pushed the data . . . it seemed more like “advocacy”*: Ibid., 2091 and 2093.
- 130 *Paul Meier commented*: Quoted in Thomas J. Moore, *Heart Failure: A Critical Inquiry into American Medicine and the Revolution in Heart Care* (New York: Simon & Schuster, 1989), 61.
- 130 *Rifkind told Time magazine*: “Sorry, It’s True: Cholesterol Really Is a Killer,” *Time*, January 23, 1984.
- 130 *“keystone in the arch”*: Kolata, “Heart Panel’s Conclusions Questioned,” 40.
- 132 *The conference “consensus” statement*: National Institutes of Health, “Lowering Blood Cholesterol to Prevent Heart Disease,” NIH Consensus Statement 5, no. 7 (1984): 1–11.
- 132 *in March 1984, Time magazine ran*: “Sorry It’s True: Cholesterol Really Is a Killer.”
- 133 *wrote a skeptical piece*: Kolata, “Heart Panel’s Conclusions Questioned,” 40–41.
- 133 *“dissent [which] is always more newsworthy”*: Daniel Steinberg, “The Pathogenesis of Atherosclerosis: An Interpretive History of the Cholesterol Controversy, Part IV: The 1984 Coronary Primary Prevention Trial Ends It—Almost,” *Journal of Lipid Research* 47, no. 1 (2006): 11.
- 134 *there was “a price to pay”*: Donald J. McNamara, interview with author, September 26, 2005.
- 134 *“public is being hosed”*: Quoted in Moore, *Heart Failure*, 63.

6. How Women and Children Fare on a Low-Fat Diet

- 135 *the agency has long been influenced*: Marion Nestle, *Food Politics* (Berkeley, CA: University of California Press, 2002).
- 135 *Americans were questioning accepted norms*: William G. Rothstein, *Public Health and the Risk Factor: A History of an Uneven Medical Revolution*, Rochester Studies in Medical History 3 (Rochester, NY: University of Rochester Press, 2003), 316.
- 136 *Jerry Stamler expressed in 1972*: Jeremiah Stamler and Frederick H. Epstein, “Coronary Heart Disease: Risk Factors as Guides to Preventive Action,” *Preventive Medicine* 1, no. 1 (1972): 46.
- 136 *“unsalted pretzels, hard candy, gum drops”*: American Heart Association, *An Eating Plan for Healthy Americans: Our American Heart Association Diet* (Dallas, TX: American Heart Association, 1995).
- 137 *view that has been widely aired*: See, e.g., Baum et al. “Fatty Acids in Cardiovascular Health and Disease: A Comprehensive Update,” *Journal of Clinical Lipidology* 6, no. 3 (2012): 216–234, 221.

- 137 *hefty fee . . . chastened into*: Rothstein, *Public Health and the Risk Factor*, 331–332.
- 137 *“Do we know enough . . .”*: Donald S. Fredrickson, “Mutants, Hyperlipoproteinaemia, and Coronary Artery Disease,” *British Medical Journal* 2, no. 5755 (1971): 187–192.
- 138 *two studies had contradictory results*: A. Korányi, “Prophylaxis and Treatment of the Coronary Syndrome,” *Therapia Hungarica* 12 (1963): 17; Research Committee, “Low-Fat Diet in Myocardial Infarction: A Controlled Trial,” *Lancet* 2, no. 7411 (1965): 501–504.
- 138 *“decks stacked against it”*: Jane E. Brody, “Personal Health, Hidden Fats: The Hazards,” *New York Times*, June 18, 1980, C1.
- 138 *The Good Food Book*: Jane E. Brody, *Jane Brody’s Good Food Book: Living the High Carbohydrate Way* (New York: Norton, 1985).
- 140 *Group Four foods*: “The Proven Lifestyle,” Preventive Medicine Research Institute, last accessed April 2009, http://www.pMRI.org/lifestyle_program.html.
- 140 *“tired, depressed, lethargic and impotent”*: Dean Ornish, “Healing through Diet,” TED Talks, Monterey, CA, October 2008, last accessed February 13, 2014, http://www.ted.com/talks/dean_ornish_on_healing.html.
- 140 *as Frank Sacks . . . found*: Quoted in Gina Kolata, “Dean Ornish: A Promoter of Programs to Foster Heart Health,” *New York Times*, December 29, 1998, F6.
- 140 *“it’s hard to do a lot of things”*: Quoted in George Epaminondas, “The Battle of the Diet Gurus,” *The Sun Herald* (Sydney, Australia), February 23, 2003.
- 141 *control group . . . saw their arteries contract*: Dean Ornish et al., “Can Lifestyle Changes Reverse Coronary Heart Disease? The Lifestyle Heart Trial,” *Lancet* 336, no. 8708 (1990): 129–133.
- 141 *a Newsweek cover story*: Geoffrey Cowley, “Healer of Hearts: Dean Ornish’s Low-Tech Methods Could Transform American Medicine. But the Doctor Is Still Striving to Transform Himself,” *Newsweek*, March 16, 1998.
- 142 *has never been successfully replicated*: Steven G. Aldana et al., “The Effect of an Intensive Lifestyle Modification Program on Carotid Artery Intima-Media Thickness: A Randomized Trial,” *American Journal of Health Promotion* 21, no. 6 (2007): 510–516.
- 142 *Gould’s incredulity*: Kay Lance Gould, interview with author, April 22, 2009.
- 142 *not been shown to extend life*: Demosthenes G. Katritsis and John P. A. Ioannidis, “Per-cutaneous Coronary Intervention versus Conservative Therapy in Nonacute Coronary Artery Disease: A Meta-Analysis,” *Circulation* 111, no. 22 (2005): 2906–2912.
- 143 *“Why do you want to know? . . . not the best evidence”*: Dean Ornish, interview with author, May 12, 2009.
- 143 *reversed heart disease . . . “totally in agreement”*: Dean Ornish, interview with author, May 14, 2009.
- 143 *opinion piece in the New York Times*: Dean Ornish, “Eating for Health, Not Weight,” *New York Times*, September 22, 2012.
- 143 *“we also found improvements . . . quibble about that”*: Ornish, interview, May 14, 2009.
- 144 *“in no case” . . . “judged to be convincing”*: World Cancer Research Fund and the American Institute for Cancer Research, *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective* (Washington, DC: American Institute for Cancer Research, 2007), 114.

- 144 *overall mortality for vegetarians and nonvegetarians*: Timothy J. Key et al., "Mortality in British Vegetarians: Results from the European Prospective Investigation into Cancer and Nutrition (EPIC-Oxford)," *American Journal of Clinical Nutrition* 89, no. 5 (2009): 1613S–1619S.
- 144 *to compare the Masai to a neighboring tribe*: John B. Orr and John L. Gilks, *Studies of Nutrition: The Physique and Health of Two African Tribes*, Medical Research Council for the Dietetics Committee of the Economic Advisory Council. Special Report Series, No. 155 (London: H. M. Stationery Office, 1931).
- 145 *"great bulk" of their food . . . "legumes, and green leaves"*: Ibid., 21.
- 145 *to suffer from . . . to contract rheumatoid arthritis*: Ibid., 9.
- 145 *5 inches taller . . . 23 pounds . . . narrower waists . . . far more muscular . . . manual labor*: Ibid.
- 145 *Alice Lichtenstein and a colleague reviewed*: Alice H. Lichtenstein and Linda Van Horn, "Very Low Fat Diets," *Circulation* 98, no. 9 (1998): 935–939.
- 145 *"harmful" for certain populations*: Ibid., 937.
- 146 *"high risk" . . . "careful supervision"*: Ibid., 938.
- 146 *compelling rationale for including children*: Henry C. McGill et al., "Origin of Atherosclerosis in Childhood and Adolescence," *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1307S–1315S.
- 147 *cord blood . . . given serious consideration*: "Questions Surround Treatment of Children with High Cholesterol," *Journal of American Medical Association* 214, no. 10 (1970): 1783–1785.
- 147 *asked Donald S. Fredrickson*: Fredrickson, "Mutants, Hyperlipoproteinaemia, and Coronary Artery Disease," 187–192.
- 147 *"scientifically unsound" . . . "needs of the young"*: Food and Nutrition Board, Division of Biological Sciences, Assembly of Life Sciences, National Research Council, National Academy of Sciences, *Toward Healthful Diets* (Washington, DC: National Academy Press, 1980), 4.
- 147 *"The nutritional needs . . . inactive octogenarian"*: Ibid.
- 148 *"absolutely no evidence that it's safe"*: Quoted in Gina Kolata, "Heart Panel's Conclusion Questioned," *Science* 227, no. 4682 (1985): 41.
- 148 *"made an unconscionable exaggeration"*: Ibid., 40.
- 148 *editorial published in the AAP journal*: American Academy of Pediatrics, Committee on Nutrition, "Prudent Life-Style for Children: Dietary Fat and Cholesterol," *Pediatrics* 78, no. 3 (1986): 524.
- 148 *"The proposed changes would affect"*: Ibid., 521–525.
- 148 *"provide 60 percent of dietary calcium"*: Ibid., 523.
- 148 *The AAP feared that rates of iron deficiency*: Ibid.
- 149 *McCollum describes the fate of a rat*: Elmer Verner McCollum, *The Newer Knowledge of Nutrition* (New York: MacMillan, 1921), 58.
- 149 *"nothing in vegetarianism per se"*: Ibid., 62.
- 150 *calcium forms insoluble "soaps"*: J. Bruce German et al., "A Reappraisal of the Impact of Dairy Foods and Milk Fat on Cardiovascular Disease Risk," *European Journal of Nutrition* 48, no. 4 (2009): 194.
- 150 *consumption of whole milk . . . together increased*: Rothstein, *Public Health and the Risk Factor*, 330.

- 151 *Lloyd Filer, a professor . . . is quoted*: Marian Burros, "Eating Well," *New York Times*, May 18, 1988.
- 151 *a survey of about a thousand mothers*: Jane B. Morgan et al., "Healthy Eating for Infants—Mothers' Attitudes," *Acta Paediatrica* 84, no. 5 (1995): 512–515.
- 152 *In 1989, Fima Lifshitz*: Fima Lifshitz and Nancy Moses, "Growth Failure. A Complication of Dietary Treatment of Hypercholesterolemia," *American Journal of Diseases of Children* 143, no. 5 (1989): 537–542.
- 152 *"overzealous"*: Ibid., 537.
- 152 *"nutritional dwarfing"*: Ibid., 540.
- 152 *NHLBI in the 1980s finally decided*: DISC Collaborative Research Group, "Dietary Intervention Study in Children (DISC) with Elevated Low Density Lipoprotein Cholesterol: Design and Baseline Characteristics," *Annals of Epidemiology* 3, no. 4 (1993): 399.
- 152 *Dietary Intervention Study in Children*: The Writing Group for the DISC Collaborative Research Group, "Efficacy and Safety of Lowering Dietary Intake of Fat and Cholesterol in Children with Elevated Low-Density Lipoprotein Cholesterol," *Journal of the American Medical Association* 273, no. 18 (1995): 1429.
- 152 *in the 80th to 98th percentile*: Ibid., 1429.
- 153 *entirely different from the way that cholesterol is altered*: See, e.g., William E. Stehbens and Elli Wierzbicki, "The Relationship of Hypercholesterolemia to Atherosclerosis with Particular Emphasis on Familial Hypercholesterolemia, Diabetes Mellitus, Obstructive Jaundice, Myxedema, and the Nephrotic Syndrome," *Progress in Cardiovascular Diseases* 30, no. 4 (1988): 289–306.
- 153 *their results could not be generalized*: See, e.g., Alvin M. Mauer, "Should There Be Intervention to Alter Serum Lipids in Children?" *Annual Review of Nutrition* 11 (1991): 383.
- 153 *They also got less magnesium, phosphorous . . .*: Eva Obarzanek et al., "Safety of a Fat-Reduced Diet: The Dietary Intervention Study in Children (DISC)," *Pediatrics* 100, no. 1 (1997): 51–59.
- 153 *a few other small studies of children*: Robert M. Kaplan and Michelle T. Toshima, "Does a Reduced Fat Diet Cause Retardation in Child Growth?" *Preventive Medicine* 21, no. 1 (1992): 33–52; Mauer, "Should There Be Intervention to Alter Serum Lipids in Children?" 375–391.
- 154 *authors concluded that "lower fat intakes . . ."*: Obarzanek et al., "Safety of a Fat-Reduced Diet," 58.
- 154 *Bogalusa Heart Study*: Theresa A. Nicklas et al., "Nutrient Adequacy of Low Fat Intakes for Children: The Bogalusa Heart Study," *Pediatrics* 89, no. 2 (1992): 221–228.
- 154 *STRIP was a loosely controlled experiment*: Helena Lapinleimu et al., "Prospective Randomized Trial in 1062 Infants of Diet Low in Saturated Fat and Cholesterol," *Lancet* 345, no. 8948 (1995): 473.
- 154 *researchers observed no difference*: Lapinleimu et al., "Prospective Randomised Trial in 1062 Infants"; Harri Niinikoski et al., "Regulation of Growth of 7- to 36-Month-Old Children by Energy and Fat Intake in the Prospective, Randomized STRIP Baby Trial," *Pediatrics* 100, no. 5 (1997): 810–816; Harri Niinikoski et al., "Impact of Repeated

- Dietary Counseling Between Infancy and 14 Years of Age on Dietary Intakes and Serum Lipids and Lipoproteins: the STRIP Study,” *Circulation* 116, no. 9 (2007): 1032–1040, 1034.
- 154 *lower levels of HDL-cholesterol*: Olli Simell et al., “Special Turku Coronary Risk Factor Intervention Project for Babies (STRIP),” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1316S–1331S.
- 154 *investigators found no vitamin deficiencies*: Ibid., 1317S.
- 155 *coming mainly from a handful*: Lars Werkö, “Risk Factors and Coronary Heart Disease—Facts or Fancy?” *American Heart Journal* 91, no. 1 (1976): 87–98; Gunnar Björck, *Contrasting Concepts of Ischaemic Heart Disease* (Stockholm, Sweden: Almqvist & Wiksell International, 1975); John McMichael, “Prevention of Coronary Heart Disease,” *Lancet* 308, no. 7985 (1976): 569; Michael Oliver, “Dietary Cholesterol, Plasma Cholesterol and Coronary Heart Disease,” *British Heart Journal* 38, no. 3 (1976): 214. A. Stewart Truswell, “Diet and Plasma Lipids—A Reappraisal,” *American Journal of Clinical Nutrition* 31, no. 6 (1978): 977–989.
- 155 *AAP officially adopted*: Academy of Pediatrics, Committee on Nutrition, “Cholesterol in Childhood,” *Pediatrics* 101, no. 1 (1998): 141–147.
- 156 *do not become dangerous, fibrous plaques*: Russell Ross, “The Pathogenesis of Atherosclerosis—An Update,” *New England Journal of Medicine* 295 (1986): 488–500.
- 156 *child’s diet is completely unrelated*: Canadian Paediatric Society and Health Canada, Joint Working Group, *Nutrition Recommendations Update: Dietary Fat and Children* (Ottawa, Ontario: Health Canada, 1993).
- 156 *the lipid profile of the mother*: Claudio Napoli et al., “Influence of Maternal Hypercholesterolaemia during Pregnancy on Progression of Early Atherosclerotic Lesions in Childhood: Fat of Early Lesions in Children (FELIC) Study,” *Lancet* 354, no. 9186 (1999): 1234–1241.
- 156 *half of children with high total cholesterol*: William R. Clarke et al., “Tracking of Blood Lipids and Blood Pressure in School Age Children: the Muscatine Study,” *Circulation* 58, no. 4 (1978): 626–634; Peter Laskarzewski et al., “Lipid and Lipoprotein Tracking in 108 Children over a Four-Year Period,” *Pediatrics* 64, no. 5 (1979): 584–591; Trevor J. Orchard et al., “Cholesterol Screening in Childhood: Does It Predict Adult Hypercholesterolemia? The Beaver County Experience,” *Journal of Pediatrics* 103, no. 5 (1983): 687–691; David S. Freedman et al., “Tracking of Serum Lipids and Lipoproteins in Children over an 8-Year Period: The Bogalusa Heart Study,” *Preventive Medicine* 14, no. 2 (1985): 203–216.
- 156 *Cochrane concluded*: Vanessa J. Poustie and Patricia Rutherford, “Dietary Treatment for Familial Hypercholesterolaemia,” *Cochrane Database of Systematic Reviews* 2 (2001): CD001918–CD001918.
- 157 *rigorous study on this hypothesis*: Benjamin Caballero et al., “Pathways: A School-Based, Randomized Controlled Trial for the Prevention of Obesity in American Indian Schoolchildren,” *American Journal of Clinical Nutrition* 78, no. 5 (2003): 1030–1038.
- 157 *“major contributor of growth failure” . . . or inability to “sustain rapid catch-up growth”*: Andrew M. Prentice and Alison A. Paul, “Fat and Energy Needs of Children in Developing Countries,” *American Journal of Clinical Nutrition* 72, suppl. (2000): 1253S.

- 157 *He compared some 140 Gambian infants . . . 8 pounds more than the Gambians . . .*: Ibid., 1259S–1260S.
- 158 *5 percent of energy as fat*: Ibid., 1261S.
- 158 *has zero grams of fat*: “Whole Grain Rice,” Earth’s Best Organic, accessed November 15, 2013. <http://www.earthsbest.com/products/product/2392390001>.
- 158 *18 percent fat*: Prentice, “Fat and Energy Needs of Children,” 1256S.
- 158 *Earth’s Best Vegetable Turkey*: “Vegetable Turkey Dinner,” Earth’s Best Organic, accessed November 15, 2013. <http://www.earthsbest.com/products/product/2392350048>.
- 158 *children have reduced their intake of fat*: Meghan M. Slining, Kevin C. Mathias, and Barry M. Popkin, “Trends in Food and Beverage Sources among US Children and Adolescents: 1989–2010,” *Journal of the Academy of Nutrition and Dietetics* 113, no. 12 (2013): 1683–1694; Richard P. Troiano, Ronette R. Briefel, Margaret D. Carroll, and Karil Bialostosky, “Energy and Fat Intakes of Children and Adolescents in the United States: Data from the National Health and Nutrition Examination Surveys,” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1343S–1353S.
- 158 *scary caveat*: Prentice and Paul, “Fat and Energy Needs of Children,” 1262S.
- 158 *children in their countries had been increasing*: Luis A Moreno, Antonio Sarría, Aurora Lázaro, and Manuel Bueno, “Dietary Fat Intake and Body Mass Index in Spanish Children,” *American Journal of Clinical Nutrition* 72, suppl. (2000): 1399S–1403S; Mitsunori Murata, “Secular Trends in Growth and Changes in Eating Patterns of Japanese Children,” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1379S–1383S.
- 158 *Reports from poorer countries*: Ricardo Uauy, Charles E. Mize, and Carlos Castillo-Duran, “Fat Intake during Childhood: Metabolic Responses and Effects on Growth,” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1345S–1360S.
- 159 *in the wealthier countries*: Spain: Moreno, Lázaro, and Bueno, “Dietary Fat Intake and Body Mass Index in Spanish Children”; Germany: Berthold Koletzko et al., “Dietary Fat Intakes of Infants and Primary School Children in Germany,” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1329S–1398S.
- 159 *symposium summary statement*: Dennis M. Bier, Ronald M. Lauer, and Olli Simell, “Summary,” *American Journal of Clinical Nutrition* 72, no. 5, suppl. (2000): 1410S–1413S.
- 159 *barely been studied*: Jacques E. Rossouw et al., “The Evolution of the Women’s Health Initiative: Perspectives from the NIH,” *Journal of the American Medical Women’s Association* 50, no. 2 (1995): 50–55.
- 159 *initially affected more men than women*: Rothstein, *Public Health and the Risk Factor*, 202–206.
- 159 *represented only 20 percent . . . 25 percent thereafter*: Patrick Y. Lee et al., “Representation of Elderly Persons and Women in Published Randomized Trials of Acute Coronary Syndromes,” *Journal of the American Medical Association* 286, no. 6 (2001): 708–713.
- 159 *researchers had been warning*: Reviewed in Robert H. Knopp et al., “Sex Differences in Lipoprotein Metabolism and Dietary Response: Basis in Hormonal Differences and Implications for Cardiovascular Disease,” *Current Cardiology Reports* 8, no. 6 (2006): 452–459.

- 160 *until ten to twenty . . . until after menopause*: C. M. Flavell, "Women and Coronary Heart Disease," *Progress in Cardiovascular Nursing* 9, no. 4 (Fall, 1994): 18–27.
- 160 *In the Framingham Study*: William B. Kannel et al., "Serum Cholesterol, Lipoproteins, and the Risk of Coronary Heart Disease: The Framingham Study," *Annals of Internal Medicine* 74, no. 1 (1971): 1–12.
- 160 *NHLBI expert panel reviewed*: David Jacobs et al., "Report of the Conference on Low Blood Cholesterol: Mortality Associations," *Circulation* 86, no. 3 (1992): 1046–1060.
- 160 *yielded some disturbing results*: Robert H. Knopp, "The Dietary Alternatives Study," *Journal of the American Medical Association* 278, no. 18 (1997): 1509–1515.
- 161 *results have been confirmed*: See, e.g., Martijn B. Katan, "High-Oil Compared with Low-Fat, High-Carbohydrate Diets in the Prevention of Ischemic Heart Disease," *American Journal of Clinical Nutrition*, 66, no. 4, suppl. (1997): 974S–979S.
- 162 *"of all the lipoproteins"*: Tavia Gordon et al., "High Density Lipoprotein as a Protective Factor Against Coronary Heart Disease: The Framingham Study," *American Journal of Medicine* 62, no. 5 (1977): 707.
- 162 *The correlation was "striking"*: Ibid., 707.
- 162 *"most important finding"*: William P. Castelli et al., "HDL Cholesterol and Other Lipids in Coronary Heart Disease: The Cooperative Lipoprotein Phenotyping Study," *Circulation* 55, no. 5 (1977): 771.
- 163 *By 2002, the NCEP was calling*: National Cholesterol Education Program, *Third Report of the National Cholesterol Education Program (NCEP). Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults: (Adult Treatment Panel III) Final Report*. NIH Publication No. 02–5215 (Washington, DC: NIH, 2002), II-1.
- 163 *number of epidemiological studies*: Castelli et al., "HDL Cholesterol and Other Lipids," 769–770.
- 163 *Michael Brown and Joseph Goldstein*: Michael S. Brown and Joseph L. Goldstein, "How LDL Receptors Influence Cholesterol and Atherosclerosis," *Scientific American* 251, no. 5 (1984): 58.
- 163 *earned \$956 billion*: Ryan Fuhrmann, "5 Best-Selling Prescription Meds of All Time," Investopedia, September 24, 2012, last accessed February 12, 2014, <http://www.investopedia.com/financial-edge/0912/5-best-selling-prescription-meds-of-all-time.aspx>.
- 163 *open secrets about statins*: LaRosa et al., "Intensive Lipid Lowering Atorvastatin"; Ray et al., "Statins and All Cause Mortality in High Risk Primary Prevention."
- 164 *journal editors were known to*: Robert H. Knopp, interview with author, February 5, 2009.
- 164 *one oil chemist described it*: Gerald McNeill, interview with author, December 10, 2012.
- 164 *Meir Stampfer*: Meir Stampfer, email message to Mark Weyland, November 20, 2004.
- 165 *seven hundred Boeing employees . . . results showed*: Robert H. Knopp et al., "One-year Effects of Increasingly Fat-Restricted Carbohydrate-Enriched Diets on Lipoprotein Levels in Free-living Subjects," *Proceedings for the Society of Experimental Biology and Medicine* 225, no. 3 (2000): 191–199; Carolyn E. Walden et al., "Differential Effect of National Cholesterol Education Program (NCEP) Step II Diet on HDL Cholesterol, Its Subfractions, and Apoprotein A-1 Levels in Hypercholesterolemic Women and Men

- after 1 Year: The BeFIT Study,” *Arteriosclerosis, Thrombosis, and Vascular Biology* 20, no. 6 (2000): 1580–1587.
- 165 *women also saw their HDL-cholesterol levels drop*: Actually, these numbers reflect the decrease in a subfraction of HDL-cholesterol called HDL2. The average drop was 16.7 percent for women in the “hypercholesterolemic” group, which started out with high cholesterol, and 7.1 percent for the “hyperlipidemic” group, which started off with high triglycerides. Their total HDL-cholesterol levels went down, too: 7.6 percent and 3.5 percent, respectively.
- 165 *“mute” reaction . . . “what to make of it”*: Robert H. Knopp, interview with author, February 5, 2009.
- 165 *other trials have also found . . . tend to happen less in these women*: Henry N. Ginsberg et al., “Effects of Reducing Saturated Fatty Acids on Plasma Lipids and Lipoproteins in Healthy Subjects: The Delta Study, Protocol 1,” *Arteriosclerosis, Thrombosis, and Vascular Biology* 18, no. 3 (1998): 441–449; Zhengling Li et al., “Men and Women Differ in Lipoprotein Response to Dietary Fat and Cholesterol Restriction,” *Journal of Nutrition* 133, no. 11 (2003): 3428–3433.
- 166 *Knopp summed up*: Robert H. Knopp et al., “Gender Differences in Lipoprotein Metabolism and Dietary Response: Basis in Hormonal Differences and Implications for Cardiovascular Disease,” *Current Atherosclerosis Reports* 7, no. 6 (2005): 472–479.
- 166 *“alternative dietary interventions*: Ibid., 477.
- 166 *reducing calories*: Dietary Guidelines Advisory Committee, prepared for the Agricultural Research Service, US Department of Agriculture and US Department of Health and Human Services, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. To the Secretary of Agriculture and the Secretary of Health and Human Services*, 7th ed. (Washington, DC: US Government Printing Office, May 2010), Table D1.1, 67.
- 166 *cut back fat and saturated fat*: Nancy D. Ernst et al., “Consistency Between US Dietary Intake and Serum Total Cholesterol Concentrations: The National Health and Nutrition Examination Surveys,” *American Journal of Clinical Nutrition* 66, no. 4, suppl. (1997): 969S.
- 166 *testified that men and women in Japan*: Gio Gori, Statement to the Senate Select Committee on Nutrition, Select Committee on Nutrition and Human Needs, United States Senate, Volume No. II, Diet Related to Killer Diseases (July 28, 1976): 176–182.
- 166 *“Now I want to emphasize . . . that food causes cancer”*: Ibid., 180.
- 167 *implied in its report that a low-fat diet*: Select Committee on Nutrition and Human Needs, United States Senate, Ninety-Fifth Congress, 1 Session, *Dietary Goals for the United States* (Washington, DC: US Government Printing Office, 1977).
- 167 *data on rats*: Albert Tannenbaum, “The Genesis and Growth of Tumors. III. Effects of a High-Fat Diet,” *Cancer Research* 2, no. 7 (1942): 468–475.
- 167 *fat consumption not to be positively linked to breast cancer*: Walter C. Willett et al., “Dietary Fat and the Risk of Breast Cancer,” *New England Journal of Medicine* 316, no. 1 (1987): 22–28.

- 167 *"no evidence" that a reduction*: Michelle D. Holmes, et al., "Association of Dietary Intake of Fat and Fatty Acids with Risk of Breast Cancer," *Journal of the American Medical Association* 281, no. 10 (1999): 914–920.
- 168 *a paper in the Journal of the American Medical Association*: Arthur Schatzkin et al., "The Dietary Fat–Breast Cancer Hypothesis is Alive," *Journal of the American Medical Association* 261, no. 22 (1989): 328–427.
- 168 *had little effect unless supplemented*: Adrienne E. Rogers and Matthew P. Longnecker, "Biology of Disease: Dietary and Nutritional Influences on Cancer—A Review of Epidemiological and Experimental Data," *Laboratory Investigation* 59, no. 6 (1988): 729–759.
- 168 *researchers have not been able to find*: D. Mazhar and J. Waxman, "Dietary Fat and Breast Cancer," *QJM* 99, no. 7 (2006): 469–473; Walter C. Willett and David J. Hunter, "Prospective Studies of Diet and Breast Cancer," *Cancer* 74, no. S3 (1994): 1085–1089; Sabina Sieri et al., "Dietary Fat and Breast Cancer Risk in the European Prospective Investigation into Cancer and Nutrition," *American Journal of Clinical Nutrition* 88, no. 5 (2008): 1304–1312.
- 168 *NCI still could not find*: Rowan T. Chlebowski et al., "Dietary Fat Reduction and Breast Cancer Outcome: Interim Efficacy Results from the Women's Intervention Nutrition Study," *Journal of the National Cancer Institute* 98, no. 24 (2006): 1767–1776.
- 168 *"probable" evidence . . . a fatty diet . . . wrote the authors*: World Cancer Research Fund and the American Institute for Cancer Research, *Food, Nutrition, Physical Activity, and the Prevention of Cancer*, 139.
- 169 *"My personal view is that"*: Arthur Schatzkin, interview with author, May 1, 2009.
- 169 *"starting anew" . . . "becoming more agnostic"*: Robert N. Hoover, interview with author, October 2, 2012.
- 169 *People magazine quoted*: Bob Meadows, M. Morehouse, and M. Simmons, "The Problem with Low-Fat Diets," *People*, February 27, 2006, 89–90.
- 170 *the results . . . series of articles in JAMA*: Shirley Beresford, et al., "Low-Fat Dietary Pattern and Risk of Colorectal Cancer," *Journal of the American Medical Association* 295, no. 6 (2006): 643–654; Barbara V. Howard et al., "Low-Fat Dietary Pattern and Weight Change over 7 Years," *Journal of the American Medical Association* 295, no. 1 (2006): 39–49; Barbara V. Howard et al., "Low-Fat Dietary Pattern and Risk of Cardiovascular Disease," *Journal of the American Medical Association* 295, no. 6 (2006): 655–666; Ross L. Prentice et al., "Low-Fat Dietary Pattern and Risk of Invasive Breast Cancer," *Journal of the American Medical Association* 295, no. 6 (2006): 629–642; Ross L. Prentice et al., "Low-Fat Dietary Pattern and Cancer Incidence in the Women's Health Initiative Dietary Modification Randomized Controlled Trial," *Journal of the National Cancer Institute* 99, no. 20 (2007): 1534–1543.
- 170 *"completely null"*: Quoted in Gina Kolata, "Low-Fat Diet Does Not Cut Health Risks, Study Finds," *New York Times*, February 8, 2006, A1.
- 170 *"Rolls Royce" . . . "final word"*: Ibid.
- 170 *Robert Knopp told me*: Knopp, interview.
- 170 *said Tim Byers*: Quoted in Rob Stein, "New Data on Health: Studies in Confusion," *Washington Post*, February 19, 2006, A1.

- 171 *Jacques Rossouw*: Ibid.
- 171 *Newspapers had a heyday*: Cited in Agneta Yngve et al., “Invited Commentary: The Women’s Health Initiative. What Is on Trial: Nutrition and Chronic Disease? Or Misinterpreted Science, Media Havoc and the Sound of Silence from Peers?” *Public Health Nutrition* 9, no. 2 (2006): 269.
- 171 *remarked Marcia Stefanick*: Quoted in Tara Parker-Pope, “In Study of Women’s Health, Design Flaws Raise Questions,” *Wall Street Journal*, February 28, 2006.
- 171 *“target around the bullet-hole”*: Robert L. Wears, Richelle J. Cooper, and David L. Magid, “Subgroups, Reanalyses, and Other Dangerous Things,” *Annals of Emergency Medicine* 46, no. 3 (2005): 254.
- 172 *A review in 2008 of all studies*: Food and Agriculture Organization of the United Nations, “Fats and Fatty Acids in Human Nutrition: Report of an Expert Consultation 10–14 November 2008,” *FAO Food and Nutrition Paper* 91 (Rome: Food and Agriculture Organization of the United Nations, 2010), 13.
- 172 *in 2013 in Sweden*: Anders Hansen, “Swedish Health Advisory Body Says Too Much Carbohydrate, Not Fat, Leads to Obesity,” *British Medical Journal*, 347 (November 15, 2013), doi:10.1136/bmj.f6873.
- 173 *wrote Frank Hu*: Frank B. Hu, JoAnn E. Manson, and Walter C. Willett, “Types of Dietary Fat and Risk of Coronary Heart Disease: A Critical Review,” *Journal of American College of Nutrition* 20, no. 1 (2001): 5.
- 173 *The USDA and AHA have both quietly eliminated*: USDA/USDHHS, *Dietary Guidelines*, 2010, x; Alice H. Lichtenstein et al., “Diet and Lifestyle Recommendations, Revision 2006,” *Circulation* 114, no. 1 (2006): 82–96.

7. Selling the Mediterranean Diet: What Is the Science?

- 174 *It recommends getting . . . Olive oil is . . . and milk, never*: Walter Willett et al., “Mediterranean Diet Pyramid: A Cultural Model for Healthy Eating,” *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1403S.
- 175 *The idea had a simple origin, she explains . . . Trichopoulou knew*: Antonia Trichopoulou, interview with author, October 1, 2008.
- 176 *“We had started cutting down olive trees” . . . She had an intuitive sense*: Ibid.
- 176 *“men of 80 to 100”*: Ancel Keys et al., *Seven Countries: A Multivariate Analysis of Death and Coronary Heart Disease* (Cambridge, MA: Harvard University Press, 1980), 76.
- 177 *“We were freezing in our unheated house”*: Ancel Keys, “Mediterranean Diet and Public Health,” *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1322S.
- 177 *“All the way to Switzerland” . . . “warm all over”*: Ancel Keys and Margaret Keys, *Eat Well and Stay Well the Mediterranean Way* (Garden City, NY: Doubleday, 1975), 2.
- 177 *Keys recalled their delight in dining*: Ibid., 4.
- 177 *“that is the Mediterranean to us”*: Ibid., 28.
- 178 *he reissued his 1959 cookbook*: Ancel Keys and Margaret Keys, *Eat Well and Stay Well* (New York: Doubleday, 1959); Keys and Keys, *Eat Well and Stay Well the Mediterranean Way*. All subsequent citations will refer to this later edition.
- 178 *“We just wanted to raise the issue”*: Trichopoulou, interview.

- 178 *these early conferences gave rise*: Elisabet Helsing and Antonia Trichopoulou, eds., “The Mediterranean Diet and Food Culture—a Symposium,” *European Journal of Clinical Nutrition* 43, suppl. 2 (1989): 1–92.
- 179 *It had been an uphill battle*: Anna Ferro-Luzzi, interview with author, July 22, 2008.
- 179 *WHO, which had a greater interest in working*: Elisabet Helsing, interview with author, July 30, 2008.
- 179 *there were “substantial differences” . . . “more butter”*: Keys and Keys, *Eat Well and Stay Well*, 38–39.
- 180 *In a meticulous, landmark paper in 1989*: Anna Ferro-Luzzi and Stefania Sette, “The Mediterranean Diet: An Attempt to Define Its Present and Past Composition,” *European Journal of Clinical Nutrition* 43, suppl. 2 (1989): 13–29.
- 180 *“impossible enterprise”*: Ibid., 25.
- 181 *“while very attractive” . . . “should not be used”*: Ibid., 26.
- 181 *did not think of themselves as having a “diet”*: Ferro-Luzzi, interview with author, July 22, 2008.
- 181 *“And bureaucrats didn’t like the idea”*: Ibid.
- 181 *“healthy” Cretan diet was virtually overflowing*: Ancel Keys, Christos Aravanis, and Helen Sdrin, “The Diets of Middle-Aged Men in Two Rural Areas of Greece,” *Voeding* 27, no. 11 (1966): 575–586; Keys and Keys, *Eat Well and Stay Well*, 31.
- 181 *“swimming in oil”*: Keys and Keys, *Eat Well and Stay Well*, 31.
- 182 *“You can’t recommend high-fat diets”*: Bonnie Liebman, “Just the Mediterranean Diet Facts,” *Nutrition Action Healthletter* 21, no. 10 (1994).
- 182 *a considerable effort to confirm*: Antonia Trichopoulou and Pagona Lagiou, “Healthy Traditional Mediterranean Diet: An Expression of Culture, History, and Lifestyle,” *Nutrition Reviews* 55, no. 11, pt. 1 (1997): 383.
- 182 *“You cannot advise less fat!”*: Trichopoulou, interview.
- 182 *took a magnifying glass*: Anna Ferro-Luzzi, W. Philip T. James, and Anthony Kafatos, “The High-Fat Greek Diet: A Recipe for All?” *European Journal of Clinical Nutrition* 56, no. 9 (2002): 796–809.
- 182 *“few scientific grounds” for the claim*: Ibid., 806. Ferro-Luzzi’s paper solicited a scathing reply not from Antonia Trichopoulou, but from her husband, Dimitrios, also a professor of epidemiology, with joint appointments at the Athens Medical School and Harvard School of Public Health. Dimitrios defended his wife’s research on olive oil generally but did not address any of the methodological problems that Ferro-Luzzi had pointed out in the data on Greek fat consumption. And in an example of the kind of derogatory tone sometimes used among nutrition researchers to defeat their opponents, Dimitrios concluded his letter by suggesting that Ferro-Luzzi’s paper “would have been much more useful if it were written more carefully, with more attention to scientific evidence and less arrogance.” Dimitrios Trichopoulos, “Letter to the Editor: In Defense of the Mediterranean Diet,” *European Journal of Clinical Nutrition* 56 (2002): 928–929; Ferro-Luzzi’s reply is here: Anna Ferro-Luzzi, W. Philip T. James, and Anthony Kafatos, “Response to the Letter Submitted by D. Trichopoulos Entitled, ‘In Defense of the Mediterranean Diet,’” *European Journal of Clinical Nutrition* 56 (2002): 930–931.

- 183 *W. Philip T. James*: W. Philip T. James, interview with author, October 26, 2008.
- 184 *took him to a local tavern*: Trichopoulou, interview, and Walter C. Willett, interview with author, February 8, 2006.
- 184 *grew up in Michigan eating . . . "revelation"*: Willett, interview with author, January 8, 2007.
- 184 *Trichopoulou remembers*: Trichopoulou, interview.
- 184 *"their jaws dropped"*: Greg Drescher, interview with author, August 14, 2008.
- 184 *"us in the culinary community" . . . "We were depressed about it"*: Ibid.
- 185 *"Willett was the pivotal figure"*: Drescher, interview with author, August 14, 2008.
- 185 *persuaded by Antonia Trichopoulou's*: Walter C. Willett, email message to author, November 29, 2008.
- 186 *the "Mediterranean Diet Pyramid"*: Justification for the pyramid is given in three papers: Walter C. Willett et al., "Mediterranean Diet Pyramid: A Cultural Model for Healthy Eating," *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1402S; Lawrence H. Kushi, Elizabeth B. Lenart, and Walter C. Willett, "Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 1. Plant Foods and Dairy Products," *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1407S; Lawrence H. Kushi, Elizabeth B. Lenart, and Walter C. Willett, "Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 2. Meat, Wine, Fats and Oils," *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1416S.
- 186 *"olive oil poured all over"*: Quoted in Sheryl Julian, "Mediterranean Diet: A Healthy Alternative? Against a Backdrop of Promotion, Experts Debate the Benefits of Olive Oil," *Boston Globe*, January 27, 1993.
- 188 *"The science just seemed to me too impressionistic"*: Marion Nestle, interview with author, July 30, 2008.
- 188 *"correct in that the evidence"*: Lawrence H. Kushi, interview with author, September 6, 2008.
- 188 *they had only one reviewer*: Marion Nestle, email message to author, August 5, 2008.
- 188 *a special supplement*: Marion Nestle, ed., "Mediterranean Diets," *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): ixS–1427S.
- 188 *funded by the olive-oil industry*: Marion Nestle, "Mediterranean Diets: Science and Policy Implications," *American Journal of Clinical Nutrition* 61, no. 6 (1995): ixS.
- 189 *Ferro-Luzzi explained to me*: Ferro-Luzzi, interview.
- 191 *American Journal of Cardiology*: Henry Blackburn, "The Low Risk Coronary Male," *American Journal of Cardiology* 58, no. 1 (1986): 161.
- 191 *"feeling very romantic about Crete"*: Henry Blackburn, interview with author, July 22, 2008.
- 192 *In April 1997*: Oldways Preservation & Exchange Trust, "Crete, Greece, and Healthy Mediterranean Diets: Celebrating the 50th Anniversary of the Scientific Studies of Healthy Traditional Mediterranean Diets Originating on Crete in 1947: An International Symposium," Apollonia Beach Hotel, Heraklion, Crete, April 5–11, 1997.
- 192 *while the Hale-Bopp comet*: Narsai David, email message to author, August 17, 2008.
- 192 *"died and gone to heaven" . . . "absolutely amazing"*: Marion Nestle, interview with author, July 30, 2008.

- 193 *remembers Laura Shapiro*: Laura Shapiro, interview with author, August 5, 2008.
- 193 *"not just a bunch of slides"*: Drescher, interview.
- 193 *says Shapiro*: Shapiro, interview.
- 194 *IOOC tried to generate*: Fausto Luchetti, interview with author, November 16, 2008.
- 194 *the IOOC was glad*: Ibid.
- 194 *tucked into flower arrangements . . . shopping bags*: Julian, "Mediterranean Diet: A Healthy Alternative?"
- 194 *"We'd start with the IOOC money"*: Drescher, interview.
- 194 *"aligning the interests"*: Ibid.
- 195 *funding from the Elais Oil Company*: Christos Aravanis and Anastasios S. Dontas, "Studies in the Greek Islands," in *The Seven Countries Study: A Scientific Adventure in Cardiovascular Disease Epidemiology*, ed. Daan Kromhout, Alessandro Menotti, and Henry Blackburn (Utrecht, Holland: Brouwer, 1994), 112.
- 195 *as Henry Blackburn recounts*: Blackburn, interview.
- 195 *Keys "helped significantly"*: Aravanis and Dontas, "Studies in the Greek Islands," 112.
- 195 *when he first came out with his study*: Ancel Keys, ed., "Coronary Heart Disease in Seven Countries," *Circulation* 61 and 62, suppl. 1, American Heart Association Monograph No. 29 (1970): I-88.
- 195 *in a later publication, only one*: Den C. Hartog et al., *Dietary Studies and Epidemiology of Heart Disease* (The Hague, Holland: Stichting tot wetenschappelijke Voorlichting op Voedingsgebied, 1968), 57.
- 195 *"what was good for commodities"*: Ferro-Luzzi, interview with author, July 22, 2008.
- 195 *Spain and Greece ran . . . European Union . . . \$215 million*: Arne Astrup, Peter Mardkman, and John Blundell, "Oiling of Health Messages in Marketing of Food," *Lancet* 356, no. 9244 (2000): 1786.
- 195 *also targeted European doctors . . . researchers to complain*: Ibid.
- 196 *Nestle spelled out*: Nestle, interview with author, July 30, 2008.
- 196 *"the fact that it was laundered"*: Kushi, interview.
- 196 *"couldn't get with the program" . . . "couldn't justify my presence"*: Shapiro, interview.
- 196 *"little olive oil ambassadors"*: Ibid.
- 197 *"food world is particularly prey to corruption"*: Nancy Harmon Jenkins, interview with author, August 6, 2008.
- 197 *nearly fifty papers on the Mediterranean Diet*: The figure of fifty studies was arrived at by counting studies listed in PubMed, www.ncbi.nih.gov.
- 198 *One ecstatic food writer*: Molly O'Neill, "A Dietary Debate: Is the Mediterranean a Nutritional Eden?" *New York Times*, February 3, 1993.
- 198 *next "nutritional eden"*: Ibid.
- 198 *"a velvet glove around the steely reality"*: Ibid.
- 199 *national consumption statistics . . . three times what it was in 1990*: IndexMundi calculation of USDA statistics, accessed January 4, 2014. <http://www.indexmundi.com/agriculture/?country=us&commodity=olive-oil&graph=domestic-consumption>.
- 200 *Hippocrates prescribed its leaves*: Hippocrates, *The Genuine Works of Hippocrates*, trans. Charles Darwin Adams (New York: Dover, 1868), part IV.

- 200 “became good friends” . . . “rough scientist” . . . “to the death”: Anna Ferro-Luzzi et al., “Changing the Mediterranean Diet: Effects on Blood Lipids,” *American Journal of Clinical Nutrition* 40, no. 5 (1984): 1027–1037.
- 200 *Ferro-Luzzi recorded*: Ibid.
- 201 *might help prevent . . . evidence so far is very weak*: Lawrence Kushi and Edward Giovannucci, “Dietary Fat and Cancer,” *American Journal of Medicine* 113, no. 9, suppl. 2 (2002): 63S–70S.
- 201 *various studies on this score*: Álvaro Alonso, Valentina Ruiz-Gutierrez, and Miguel Ángel Martínez-González, “Monounsaturated Fatty Acids, Olive Oil and Blood Pressure: Epidemiological, Clinical and Experimental Evidence,” *Public Health Nutrition* 9, no. 2 (2005): 251–257; Álvaro Alonso and Miguel Ángel Martínez-González, “Olive Oil Consumption and Reduced Incidence of Hypertension: The SUN Study,” *Lipids* 39, no. 12 (2004): 1233–1238.
- 201 *flavonoids . . . unable to show*: Lee Hooper et al., “Flavonoids, Flavonoid-Rich Foods, and Cardiovascular Risk: A Meta-Analysis of Randomized Controlled Trials,” *American Journal of Clinical Nutrition* 88, no. 1 (2008): 38–50.
- 201 *published a landmark article*: Antonia Trichopoulou et al., “Adherence to a Mediterranean Diet and Survival in a Greek Population,” *New England Journal of Medicine* 348, no. 26 (2003): 2600.
- 202 “a high intake of olive oil” . . . “significant and substantial”: Ibid., 2607.
- 202 *never actually measured the olive oil*: Antonia Trichopoulou, email message to author, December 13, 2013.
- 202 *not an item on the food-frequency questionnaire*: The Greek dietary questionnaire is an appendix of this description of the study protocol: Klea Katsouyanni et al., “Reproducibility and Relative Validity of an Extensive Semi-Quantitative Food Frequency Questionnaire Using Dietary Records and Biochemical Markers among Greek School-teachers,” *International Journal of Epidemiology* 26, suppl. 1 (1997): S119.
- 202 “estimated” its use: Katsouyanni, *ibid.*
- 202 *one of the paper’s tables*: Trichopoulou et al., “Adherence to a Mediterranean Diet,” 2602.
- 202 *gathered all the available evidence*: Bob Bauer, letter responding to the Health Claim Petition (Docket No 2003Q-0559), Office of Nutritional Products, Labeling and Dietary Supplements, US Food and Drug Administration, November 1, 2004.
- 202 *FDA was not convinced*: Office of Nutritional Products, Labeling and Dietary Supplements, FDA, Letter Responding to Health Claim Petition dated August 28, 2003: Monounsaturated Fatty Acids from Olive Oil and Coronary Heart Disease (Docket No. 2003Q-0559), November 1, 2004.
- 202 “low level of comfort”: Ibid.
- 202 *a few clinical trials on olive oil have been performed*: N. R. Damasceno et al., “Crossover Study of Diets Enriched with Virgin Olive Oil, Walnuts or Almonds. Effects on Lipids and Other Cardiovascular Risk Markers,” *Nutrition Metabolism Cardiovascular Disease* 21, suppl. 1 (2011): 14S–20S; Paola Bogani et al., “Postprandial Anti-Inflammatory and Antioxidant Effects of Extra Virgin Olive Oil,” *Atherosclerosis* 190, no. 1 (2007): 181–186; M. Fitó et al., “Anti-Inflammatory Effect of Virgin Olive Oil in Stable Coro-

- nary Disease Patients: A Randomized, Crossover, Controlled Trial,” *European Journal of Clinical Nutrition* 62, no. 4 (2004): 570–574.
- 203 *moreover, a few recent studies on animals*: Reviewed in Seth J. Baum et al., “Fatty Acids in Cardiovascular Health and Disease: A Comprehensive Update,” *Journal of Clinical Lipidology* 6, no. 3 (2012): 221–223.
- 203 *an article in Nature*: Gary K. Beauchamp et al., “Phytochemistry: Ibuprofen-Like Activity in Extra-Virgin Olive Oil,” *Nature* 437, no. 7055 (2005): 45–46.
- 203 *“led to the only light-bulb”*: Gary Beauchamp, “Oleocanthal: A Pungent Anti-Inflammatory Agent in Extra-Virgin Olive Oil,” paper presented at the 15th Anniversary Mediterranean Diet Conference, Oldways Preservation and Exchange Trust and Mediterranean Foods Alliance, Cambridge, Boston, November 17, 2008.
- 203 *as one critic pointed out*: Vincenzo Fogliano and Raffaele Sacchi, “Oleocanthal in Olive Oil: Between Myth and Reality,” *Molecular Nutrition & Food Research* 50, no. 1 (2006): 5–6.
- 203 *“surprisingly” is the word . . . concluding, in 2011*: Miguel Ruiz-Canela and Miguel A. Martínez-González, “Olive Oil in the Primary Prevention of Cardiovascular Disease,” *Maturitas* 68, no. 3 (2011): 245.
- 204 *actual passage in the Odyssey*: Homer, *The Odyssey*, trans. A. T. Murray (Boston: Harvard University Press, 1919), bk. VI, ll. 211–222. (Emphasis added.)
- 204 *wrote a French historian*: Hamis Forbes, “Ethnoarchaeology and the Place of Olive in the Economy of the Southern Argolid, Greece,” in *La Production du Vin et L’huile en Mediterranee* (The Production of Wine and Oil in the Mediterranean), BCH suppl. 26, eds. M. C. Amouretti and J. P. Brun (Paris: Ecole Française d’Athenes, 1993), 213–226.
- 204 *Hamilakis concludes . . . “no evidence” . . . “for culinary use”*: Yannis Hamilakis, “Food Technologies/Technologies of the Today: The Social Context of Wine and Oil Production and Consumption in Bronze Age Crete,” *World Archeology* 31, no. 1; reprinted in *Food Technology in Its Social Context* (London and New York: Routledge, 1999), 45–46.
- 204 *In Spain, too*: Grigg, “Olive Oil, the Mediterranean and the World,” 168.
- 204 *“doubtful” that olive oil “made a contribution”*: Marion Nestle, “The Mediterranean Diet and Disease Prevention,” in *The Cambridge World History of Food 2*, eds. K. F. Kiple and K. C. Ornelias (Cambridge, UK: Cambridge University Press, 2000), 1196.
- 205 *lard*: For Italy, see: Massimo Montanari, *The Culture of Food* (Oxford: Blackwell, 1994), 165; Alan Davidson, “Lard,” in *The Penguin Companion on Food* (New York: Penguin Books, 2002), 530–531.
- 205 *as Ancel Keys originally proposed*: Keys, “Coronary Heart Disease in Seven Countries,” I-88.
- 205 *“psychosocial environment”*: Trichopoulou and Lagiou, “Healthy Traditional Mediterranean Diet,” 383–389.
- 206 *Anna Ferro-Luzzi attended an international meeting*: Ferro-Luzzi, interview with author, July 22, 2008.
- 206 *Trichopoulou found, when she combined*: Antonia Trichopoulou et al., “Modified Mediterranean Diet and Survival: EPIC-Elderly Prospective Cohort Study,” *British Medical Journal* 330 (2005): 991–998.

- 207 *she developed the Mediterranean Diet Score*: Antonia Trichopoulou et al., “Diet and Overall Survival in Elderly People,” *British Medical Journal* 311, no. 7018 (1995): 1457–1460.
- 208 *in a comprehensive review of indexes*: Anna Bach et al., “The Use of Indexes Evaluating the Adherence to the Mediterranean Diet in Epidemiological Studies: A Review,” *Public Health Nutrition* 9, no. 1A (2006): 144.
- 208 *Andy R. Ness . . . told me that the indexes . . . “pretty dire”*: Andy R. Ness, interview with author, October 13, 2008.
- 208 *Trichopoulou replies that her efforts*: Antonia Trichopoulou, interview with author, October 1, 2008.
- 208 *“This is our cry!”*: Ibid.
- 208 *motivated as much by “Mother Greece”*: James, interview; Nestle, interview with author, July 30, 2008; Serra-Majem, interview.
- 208 *“Antonia is perhaps guilty”*: Elisabet Helsing, interview with author, July 30, 2008.
- 208 *Frank B. Hu wrote*: Frank B. Hu, “The Mediterranean Diet and Mortality—Olive Oil and Beyond,” *New England Journal of Medicine* 348 (2003): 2595–2596.
- 209 *Lyon Diet Heart Study*: Michel de Lorgeril et al., “Mediterranean Alpha-Linolenic Acid-Rich Diet.”
- 209 *“hopelessly underpowered” . . . as one researcher commented*: Andy R. Ness, interview with author, October 13, 2008.
- 209 *changed their diet . . . a tiny amount*: De Lorgeril et al., “Mediterranean Alpha-Linolenic Acid-Rich Diet,” 1456.
- 210 *“containing star gooseberries, grapes”*: Ram B. Singh et al., “Randomised Controlled Trial of Cardioprotective Diet in Patients with Recent Acute Myocardial Infarction: Results of One Year Follow Up,” *British Medical Journal* 304, no. 6833 (1992): 1015–1019; Ram B. Singh et al., “An Indian Experiment with Nutritional Modulation in Acute Myocardial Infarction,” *American Journal of Cardiology* 69, no. 9 (1992): 879.
- 211 *appeared to have been fabricated*: Caroline White, “Suspected Research Fraud: Difficulties Getting at the Truth,” *British Medical Journal* 331, no. 7511 (2005): 285.
- 211 *the serum cholesterol values*: C. R. Soman, “Correspondence: Indo-Mediterranean Diet and Progression of Coronary Artery Disease,” *Lancet* 366, no. 9483 (July 30, 2005): 365–366.
- 211 *“Suspected Research Fraud”*: White, “Suspected Research Fraud.”
- 211 *“either fabricated or falsified”*: Sanaa Al-Marzouki et al., “Are These Data Real? Statistical Methods for the Detection of Data Fabrication in Clinical Trials,” *British Medical Journal* 331, no. 7511 (July 30, 2005): 270.
- 211 *expressed their serious reservations*: Jane Smith and Fiona Godlee, “Investigating Allegations of Scientific Misconduct,” *British Medical Journal* 331, no. 7511 (July 30, 2005): 245–246; Fiona Godlee, email to author, January 27, 2014. On the same day as *British Medical Journal* editors wrote of their reservations, an editor of the *Lancet* wrote an “Expression of Concern” about that journal’s publication of a 2002 paper by Singh, based on the same trial data. Richard Horton, “Expression of Concern: Indo-Mediterranean Diet Heart Study,” *Lancet* 366, no. 9483 (July 30, 2005): 354–356.

- 211 *an influential one by Lluís Serra-Majem*: Lluís Serra-Majem, Blanca Roman, and Ramón Estruch, “Scientific Evidence of Interventions Using the Mediterranean Diet: A Systematic Review,” *Nutritional Review* 64, no. 2, pt. 2, suppl. (2006): S27–S47.
- 212 *“We have to take care”*: Lluís Serra-Majem, interview with author, October 1, 2008.
- 212 *Indeed, in his literature review*: Serra-Majem, Roman, and Estruch, “Scientific Evidence of Interventions Using the Mediterranean Diet.”
- 212 *“I wanted to leave the door open”*: Serra-Majem, interview.
- 212 *GISSI-Prevenzione trial*: GISSI-Prevenzione Investigators (Gruppo Italiano per lo Studio della Sopravvivenza nell’Infarto miocardico), “Dietary Supplementation with n-3 Polyunsaturated Fatty Acids and Vitamin E after Myocardial Infarction: Results of the GISSI-Prevenzione Trial,” *Lancet* 354, no. 9177 (1999): 447–455.
- 213 *conducted in Israel*: Iris Shai et al., “Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet,” *New England Journal of Medicine* 359, no. 3 (2008): 229–241.
- 214 *“So my conservative conclusion is”*: Stampfer, interview.
- 214 *a large Spanish study*: Ramón Estruch et al., “Primary Prevention of Cardiovascular Disease with a Mediterranean Diet,” *New England Journal of Medicine* 368, no. 14 (2013): 1279–1290.
- 215 *announced the New York Times*: Gina Kolata, “Mediterranean Diet Shown to Ward Off Heart Attack and Stroke,” *New York Times*, February 25, 2013, A1.
- 215 *largest difference between the low-fat and Mediterranean groups*: Estruch et al., “Primary Prevention of Cardiovascular Disease with a Mediterranean Diet,” supplementary appendix, 26.
- 216 *PREDIMED’s appendix*: Ibid.
- 216 *Serra-Majem told me*: Serra-Majem, interview.
- 217 *“destroyed in processing”*: Keys, Aravanis, and Sdrin, “Diets of Middle-Aged Men,” 62.
- 217 *“absorbed into the clay”*: Ibid., and Christos Aravanis, letter to author, October 6, 2008.
- 218 *“If the thirty-three lined up perfectly”*: Sander Greenland, email message to author, January 5, 2008.
- 218 *“Jell-O in a Cretan earthquake”*: Sander Greenland, email message to author, October 7, 2008.
- 218 *Much later, in the 1980s*: A. Ferro-Luzzi et al., “Changing the Mediterranean Diet: Effects on Blood Lipids,” *American Journal of Clinical Nutrition* 40, no. 5 (1984): 1027–1037.
- 218 *Seven Countries study leaders acknowledged*: Daan Kromhout et al., “Food Consumption Patterns in the 1960s in Seven Countries,” *American Journal of Clinical Nutrition* 49, no. 5 (1989): 892.
- 218 *Keys had published a paper*: Ibid.
- 218 *“high in saturated fatty acids”*: Kushi et al., “Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 1,” 1410S.
- 218 *“In Crete the meat is mostly goat”*: Keys, Aravanis, and Sdrin, “Diets of Middle-Aged Men,” 575–586.
- 218 *An earlier survey of the Cretan diet*: Leland Girard Allbaugh, *Crete: A Case Study of an Underdeveloped Area* (Princeton, NJ: Princeton University Press, 1953), 100.

- 219 *"Patrokles put a big bench in the firelight"*: Quoted in John C. Waterlow, "Diet of the Classical Period of Greece and Rome," *European Journal of Clinical Nutrition* 43, suppl. 2 (1989): 6.
- 219 *"major hallmark" of his pyramid*: Kushi, "Health Implications of the Mediterranean Diets in Light of Contemporary Knowledge. 2," 1416S.
- 219 *Willett and his colleagues don't cite*: Ibid. Willett, "Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 2."
- 219 *Willett told me*: Walter Willett, email message to author, November 29, 2008.
- 220 *a thorough study of the Cretan diet*: Allbaugh, *Crete: A Case Study of an Underdeveloped Area*.
- 220 *"consisted chiefly of foods of vegetable origins"*: Ibid., 100.
- 220 *"We are hungry most of the time . . . 72% of the families questioned"*: Ibid., 105.
- 220 *"not very nourishing"*: Vito Teti, "Food and Fatness in Calabria," in *Social Aspects of Obesity*, eds., Igor De Garine and Nancy J. Pollock, trans. Nicolette S. James (Amsterdam: Gordon and Breach, 1995).
- 221 *Teti to conclude*: Ibid., 9.
- 221 *18 percent of men . . . 5 percent in the north*: Istituto Nazionale di Statistica, "Analisi Statistica sui Giovani Iscritti nelle Liste di Leva" (Statistical Analysis of Young Conscripts), *ISTAT Notiziario*, Serie 4, Foglio 41 (1993); 14:1–10 (in Italian).
- 221 *the shortest men in the entire country*: Cited in Teti, "Food and Fatness in Calabria," 9.
- 221 *"Meat is what . . . who had eaten meat"*: Ibid., 15.
- 221 *ten times more meat . . . biggest change*: Anna Ferro-Luzzi and Francesco Branca, "Mediterranean Diet, Italian-Style: Prototype of a Healthy Diet," *American Journal of Clinical Nutrition* 61, no. 6, suppl. (1995): 1343S.
- 221 *by almost three inches*: World Health Organization, "Health for All: Statistical Database," Geneva: Regional Office for Europe, 1993.
- 221 *It was the same in Spain*: Lluís Serra-Majem et al., "How Could Changes in Diet Explain Changes in Coronary Heart Disease Mortality in Spain? The Spanish Paradox," *American Journal of Clinical Nutrition* 61, no. 6 (1995): 1353S.
- 222 *The Swiss ate*: E. Guberan, "Surprising Decline of Cardiovascular Mortality in Switzerland: 1951–1976," *Journal of Epidemiology and Community Health* 33, no. 2 (1979): 114–120.
- 222 *he found that the farmers*: Christos Aravanis, "The Classic Risk Factors for Coronary Heart Disease: Experience in Europe," *Preventive Medicine* 12, no. 1 (1983): 19.
- 222 *heart attack rates remained*: Christos D. Lionis et al., "Mortality Rates in a Cardiovascular 'Low-risk' Population in Rural Crete," *Family Practice* 10, no. 3 (1993): 300–304.
- 222 *In a 2004 paper*: Lluís Serra-Majem et al., "Does the Definition of the Mediterranean Diet Need to be Updated?" *Public Health Nutrition* 7, no. 7 (2004): 928.
- 223 *"pie almost never"*: Allbaugh, *Crete: A Case Study*, 103.
- 223 *"hardly any pastries were eaten"*: Kromhout et al., "Food Consumption Patterns in the 1960s in Seven Countries," 892.
- 223 *the intake of sugar and other carbohydrates fell*: Serra-Majem et al., "How Could Changes in Diet Explain Changes?," 1351S–1359S.
- 223 *Italian sugar consumption*: Paolo Rubba et al., "The Mediterranean Diet in Italy: An Update," *World Review of Nutrition and Dietetics* 97 (2007): 86.

224 *As Serra-Majem told me*: Lluís Serra-Majem, interview with author, August 2, 2008.

8: Exit Saturated Fats, Enter Trans Fats

- 227 *drop by his office to "ok"*: Mark Matlock, interview with author, November 7, 2005.
- 228 *campaign called "Saturated Fat Attack"*: Center for Science in the Public Interest, "Building a Healthier America, 35th Anniversary Report" (Washington, DC: Center for Science in the Public Interest, 2006); Center for Science in the Public Interest, "Saturated Fat Attack," booklet (Washington, DC: Center for Science in the Public Interest, 1988).
- 228 *Hydrogenated oils were therefore "not a bad bargain"*: Michael F. Jacobson and Sarah Fritschner, *The Fast-Food Guide: What's Good, What's Bad, and How to Tell the Difference* (New York: Workman, 1986), 51.
- 228 *CSPi campaign successfully convinced*: Center for Science in the Public Interest, "Popcorn: Oil in Day's Work," *Nutrition Action Health Letter*, May 1994, last accessed February 12, 2014, <http://www.cspinet.org/nah/popcorn.html>.
- 228 *"a great boon"*: Jacobson and Fritschner, *The Fast-Food Guide*, 132.
- 230 *now thought to be minimal*: K. C. Hayes for the Expert Panel, "Fatty Acid Expert Roundtable: Key Statements about Fatty Acids," *Journal of the American College of Nutrition* 29, no. 3, suppl. (2010): 285S–288S.
- 230 *funded by his own millions*: Ronald J. Adams and Kenneth M. Jennings, "Media Advocacy: A Case Study of Philip Sokolof's Cholesterol Awareness Campaigns," *Journal of Consumer Affairs* 27, no. 1 (1993): 145–165.
- 230 *"THE POISONING OF AMERICA"*: Phil Sokolof, "The Poisoning of America," *New York Times*, November 1, 1988, A29. Identical full-page ads were also placed in the *Wall Street Journal*, *Washington Times*, *New York Post*, and *USA Today*, among other papers.
- 230 *"thousands of letters" . . . "only a few replies"*: "Food Industry Gadfly Still Buzzing," Associated Press, March 5, 2009.
- 230 *his "greatest triumph"*: Quoted in *ibid.*
- 232 *"We want to hold this market"*: D. G. Wing, Testimony on Behalf of the American Soybean Association, to the US Congress, House Agricultural Committee, Hearings in March, 1948, printed in *Soybean Digest* (April 1948): 22.
- 232 *"remembers Steven Drake"*: Steven Drake, interview with author, November 8, 2012.
- 232 *only 4 percent to 10 percent of the fats*: *Oil World* estimate for 1986, cited in "Tropical Fats Labeling: Malaysians Counterattack ASA Drive," *Journal of the American Oil Chemists' Society* 64, no. 12 (1987): 1596–1598; the 4 percent figure refers to 1985 consumption and comes from Youngmee K. Park and Elizabeth A. Yetley, "Trench Changes in Use and Current Intakes of Tropical Oils in the United States," *American Journal of Clinical Nutrition* 51, no. 5 (1990): 738–748.
- 233 *the name "tree lard" for it*: Drake, interview.
- 233 *Part of the ASA's so-called "Fat-Fighter" kits*: Susan J. Duthie, "Soybean Growers Move to Label Palm Oil as Unhealthy, Bringing Rivalry to a Boil," *Wall Street Journal*, August 31, 1987.
- 233 *the Wall Street Journal described it*: *Ibid.*
- 233 *demonstrators turned up*: Barbara Crossette, "International Report: Malaysia Opposes Labels on Palm Oil," *New York Times*, October 19, 1987.

- 233 “racist picture . . . to tell you the truth”: Drake, interview.
- 233 “only 5 percent to 10 percent”: Kalyana Sundram, interview with author, January 8, 2008.
- 233 *have a chilling effect*: Sundram, interview.
- 234 *said Tan Sri Augustine Ong*: Tan Sri Augustine Ong, interview with author, March 11, 2008.
- 234 *protect against blood clots*: On protection against blood clots, see Gerard Hornstra and Anna Vendelmans-Starrenburg, “Induction of Experimental Arterial Occlusive Thrombi in Rats,” *Atherosclerosis* 17, no. 3 (1973): 369–382; Margaret L. Rand, Adje A. Hennissen, and Gerard Hornstra, “Effects of Dietary Palm Oil on Arterial Thrombosis, Platelet Responses and Platelet Membrane Fluidity in Rats,” *Lipids* 23, no. 11 (1988): 1019–1023.
- 234 Nutrition Reviews wrote: “New Findings on Palm Oil,” editorial, *Nutrition Reviews* 45, no. 9 (1987): 205–207.
- 234 *discovered in 1981*: Ian A. Prior et al., “Cholesterol, Coconuts, and Diet on Polynesian Atolls: A Natural Experiment: The Pukapuka and Tokelau Island Studies,” *American Journal of Clinical Nutrition* 34, no. 8 (1981): 1552–1561.
- 234 *In Malaysia and the Philippines*: Pramod Khosla, “Palm Oil: A Nutritional Overview,” *Journal of Agricultural and Food Industrial Organization* 17 (2000): 21–23.
- 234 “a trade issue under the guise”: Ong, interview.
- 235 Ronk’s testimony . . . *was widely credited*: Crossette, “International Report: Malaysia Opposes Labels on Palm Oil.”
- 235 *told the New York Times*: Douglas C. McGill, “Tropical-Oil Exporters Seek Reprieve in U.S.” *New York Times*, February 3, 1989, D1.
- 235 *Nabisco spokeswoman*: Ibid.
- 235 *yet some products*: Ibid.
- 236 *nearly 2 billion pounds*: “Tropical Fats Labeling: Malaysians Counterattack ASA Drive,” *Journal of the American Oil Chemists’ Society* 64, no. 12 (1987): 1596.
- 236 *was replaced pound for pound*: Based on multiple interviews, including Walter Farr, February 22, 2008, Frank Orthofer, January 15, 2008, Gil Leveille, February 21, 2008, and Lars Wiedermann, January 16, 2004.
- 236 *his “nuclear” option*: Ong, interview.
- 236 *ran full-page ads*: Malaysian Oil Palm Grower’s Council, “To the American People—The Facts about Palm Oil,” full-page advertisements in the *New York Times*, *Wall Street Journal*, *USA Today*, and other papers, January–February 1989; McGill, “Tropical Oils Exporters.”
- 236 *ASA was well-aware*: Drake, interview.
- 236 “pretty scary,” “really shook us up” . . . “attacking one oil”: Ibid.
- 236 “technically unsound . . . bad manners”: Lars Wiedermann, letter to author, March 3, 2008.
- 237 *Wall Street Journal reported*: Quoted in “US Soybean Group to Stop Depicting Palm Oil as Risk,” *Wall Street Journal*, August 10, 1989, 1.
- 237 *the end of a “bitter, two-year feud”*: Ibid.
- 237 *explained Ron Harris*: Ron Harris, interview with author, August 20, 2007.
- 237 *a trans-fat expert at USDA*: Gary List, interview with author, February 15, 2008.
- 237 *Walter Farr . . . “We intentionally upped trans fats”*: Farr, interview with author, February 22, 2008.

- 237 *“Over my career . . . leaps and bounds”*: Ibid.
- 237 *18 billions pounds . . . more than 80 percent*: Robert Reeves, email message to author, February 2, 2004.
- 238 *In the 1920s and thirties*: Thomas Percy Hilditch and N. L. Vidyarthi, “The Products of Partial Hydrogenation of Higher Monoethylenic Esters,” *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character* 122, no. 790 (1929): 552–563.
- 238 *“in no way objectionable”*: A. D. Barbour, “The Deposition and Utilization of Hydrogenation Isoleic Acid in the Animal Body,” *Journal of Biological Chemistry* 10, no. 1 (1933): 71.
- 238 *grew more slowly*: A. K. Pickat, “The Nutritive Value of Margarine and Soy Bean-Oil,” *Voprosy Pitaniia* 2, no. 5 (1933): 34–60.
- 238 *yin-yang of conflicting results*: Kenneth P. McConnel and Robert Gordon Sinclair, “Passage of Elaidic Acid through the Placenta and Also into the Milk of the Rat,” *Journal of Biological Chemistry* 118, no. 1 (1937): 118–129; E. Aaes-Jørgensen et al., “The Role of Fat in the Diet of Rats,” *British Journal of Nutrition* 10, no. 4 (1956): 292–304.
- 238 *was a 1944 study*: H. J. Deuel et al., “Studies of the Comparative Nutritive Value of Fats: I. Growth Rate and Efficiency of Conversion of Various Diets to Tissue,” *Journal of Nutrition* 27 (1944): 107–121; H. J. Deuel, E. Movitt, and L. F. Hallman, “Studies of the Comparative Nutritive Value of Fats: The Negative Effect of Different Fats on Fertility and Lactation in the Rat,” *Journal of Nutrition*, 27, no. 6 (1944): 509–513.
- 238 *opinion piece*: Harry J. Deuel, “The Butter-Margarine Controversy,” *Science* 103, no. 2668 (1946): 183–187.
- 239 *The only published . . . “almost hopelessly complex” . . . “We are consuming” . . . “indeed fortunate”*: Ahmed Fahmy Mabrouk and J. B. Brown, “The Trans Fatty Acids of Margarines and Shortenings,” *Journal of the American Oil Chemists Society* 33, no. 3 (1956): 102.
- 239 *In 1961, Ancel Keys*: Joseph T. Anderson, Francisco Grande, and Ancel Keys, “Hydrogenated Fats in the Diet and Lipids in the Serum of Man,” *Journal of Nutrition* 75 (1961): 368–394.
- 239 *Joseph T. Judd*: Joseph T. Judd, interview with author, October 27, 2005.
- 240 *a study out of its company lab*: Don E. McOsker et al., “The Influence of Partially Hydrogenated Dietary Fats on Serum Cholesterol Levels,” *Journal of the American Medical Association* 180, no. 5 (1962): 380–385.
- 240 *study in Science*: Patricia V. Johnston, Ogden C. Johnson, and Fred A. Kummerow, “Occurrence of Trans Fatty Acids in Human Tissue,” *Science* 126, no. 3276 (1957): 698–699.
- 241 *“a big wheel”*: Fred A. Kummerow, interview with author, November 6, 2005.
- 241 *for posing in an ad with a bottle of Crisco*: Fred A. Kummerow, letter to Campell Moses, July 11, 1968, in author’s possession.
- 242 *agreed with him about the trans fat language*: Kummerow, interview with author, September 25, 2003.
- 242 *had 150,000 dietary-guideline pamphlets printed up*: American Heart Association, Committee on Nutrition, “Diet and Heart Disease: This Statement was Developed by

- the Committee on Nutrition and Authorized for Release by the Central Committee for Medical and Community Program of the American Heart Association,” American Heart Association, 1968.
- 242 *It didn't want anything revealed*: Letter from Malcolm R. Stephens, president of the Institute of Shortening and Edible Oils, to Campbell Moses, July 2, 1968, in author's possession.
- 242 *new batch of guidelines printed up*: American Heart Association, Committee on Nutrition, “Diet and Heart Disease: Revised Report of the Committee on Nutrition Authorized by the Central Committee for Medical and Community Program of the American Heart Association—1968,” American Heart Association, 1968.
- 242 *“any of the heart association” . . . giving him money*: Kummerow, interview, September 25, 2003.
- 243 *confirmed Kummerow's original 1957 study*: Patricia V. Johnston, Ogden C. Johnson, and Fred A. Kummerow, “Deposition in Tissues and Fecal Excretion of Trans Fatty Acids in the Rat,” *Journal of Nutrition* 65, no. 1 (1958): 13–23.
- 243 *are like foreign agents*: Walter J. Decker and Walter Mertz, “Effects of Dietary Elaidic Acid on Membrane Function in Rat Mitochondria and Erythrocytes,” *Journal of Nutrition* 91, no. 3 (1967): 327; William E. M. Lands et al., “A Comparison of Acyltransferase Activities in Vitro with the Distribution of Fatty Acids in Lecithins and Triglycerides in Vivo,” *Lipids* 1, no. 3 (1966): 224; Mohamedain M. Mahfouz, T. L. Smith, and Fred A. Kummerow, “Effect of Dietary Fats on Desaturase Activities and the Biosynthesis of Fatty Acids in Rat-Liver Microsomes,” *Lipids* 19, no. 3 (1984): 214–222.
- 243 *ramped up their uptake of calcium*: Fred A. Kummerow, Sherry Q. Zhou, and Mohamedain M. Mahfouz, “Effects of Trans Fatty Acids on Calcium Influx into Human Arterial Endothelial Cells,” *American Journal of Clinical Nutrition* 70, no. 5 (1999): 832–838.
- 243 *fifty unnatural ones*: Randall Wood, Fred Chumbler, and Rex Wiegand, “Incorporation of Dietary *cis* and *trans* Isomers of Octadecenoate in Lipid Classes of Liver and Hepatoma,” *Journal of Biological Chemistry* 252, no. 6 (1977): 1965–1970.
- 243 *Wood told me*: Randall Wood, interview with author, December 18, 2003.
- 243 *echoed David Kritchevsky*: David Kritchevsky, interview with author, May 31, 2005.
- 244 *American Dairy Association would not fund*: Thomas H. Applewhite, interview with author, December 11, 2003.
- 245 *explained Lars H. Wiedermann*: Wiedermann, interview with author, January 16, 2004.
- 245 *“the ringleader on trans”*: Applewhite, interview.
- 245 *Wiedermann remembers going after Kummerow*: Wiedermann, interview with author, January 16, 2004.
- 245 *Kummerow found them intimidating*: Kummerow, interview with author, August 21, 2007.
- 245 *“their main effect” . . . “they would blindside you”*: Wood, interview with author, December 18, 2003.
- 246 *a study he had conducted on miniature pigs*: Fred A. Kummerow et al., “The Influence of Three Sources of Dietary Fats and Cholesterol on Lipid Composition of Swine Serum Lipids and Aorta Tissue,” *Artery* 4 (1978): 360–384.

- 246 *as a USDA chemist . . . described it to me*: Gary List, interview with author, February 15, 2008.
- 246 *"We spent lots of time" . . . "nothing either wrong or immoral"*: Wiedermann, letter to author, March 19, 2008.
- 247 *set off "alarm bells"*: Wiedermann, interview with author, February 7, 2008.
- 247 *a paper documenting*: Mary Enig, R. Munn, and M. Keeney, "Dietary Fat and Cancer Trends—A Critique," *Federation Proceedings*, Federation of American Societies for Experimental Biology, 37, no. 9 (1978): 2215.
- 247 *three highly critical Letters to the Editor*: Thomas H. Applewhite, " 'Statistical Correlations' Relating Trans-Fats to Cancer: A Commentary," *Federation Proceedings*, Federation of American Societies for Experimental Biology 38, no. 11 (1979): 2435; J. C. Bailar, "Dietary Fat and Cancer Trends—A Further Critique," *Federation Proceedings*, Federation of American Societies for Experimental Biology 38, no. 11 (1979): 2435; W. H. Meyer, "Dietary Fat and Cancer Trends—Further Comments," *Federation Proceedings*, Federation of American Societies for Experimental Biology 38, no. 11 (1979): 2436.
- 247 *Enig recalled . . . those "guys" included*: Applewhite, interview; Mary G. Enig, interview with author, October 15, 2003.
- 247 *As Enig describes*: Enig, interview with author, December 29, 2004.
- 247 *"nutso" . . . "off-the-wall" . . . "a zealot"*: "nutso," Edward A. Emken, interview with author, October 25, 2007; "paranoid," Robert J. Nicolosi, interview with author, October 27, 2005; "off the wall," Rick Crystal, interview with author, October 27, 2005; "a zealot," Steve Hill, interview with author, February 4, 2008.
- 248 *said one attendee*: List, interview with author, February 15, 2008.
- 248 *commented another*: Frank T. Orthoefer, interview with author, January 15, 2008.
- 248 *review . . . found "no evidence"*: Life Sciences Research Center, Federation of American Societies for Experimental Biology, *Evaluation of the Health Aspects of Hydrogenated Soybean Oil as a Food Ingredient*, Prepared for Bureau of Foods, Food and Drug Administration, Department of Health, Education, and Welfare (Bethesda, MD: Life Sciences Research Office, Federation of American Societies for Experimental Biology, 1976), 30.
- 248 *Kummerow's disturbing finding*: Ibid., 29.
- 249 *to conclude that trans fats*: Frederic R. Senti, ed., *Health Aspects of Dietary Trans-Fatty Acids*, Prepared for the Center for Food Safety and Applied Nutrition, Food and Drug Administration, Department of Health and Human Services (Bethesda, MD: Life Sciences Research Office, Federation of American Societies for Experimental Biology, 1985).
- 249 *Enig told the assembled experts*: "FASEB Nutrition Study Using 'Flawed Data,' Researcher Charges," *Food Chemical News*, January 25, 1988, 52–54.
- 250 *continued to criticize Enig's work*: Thomas H. Applewhite, "Nutritional Effects of Isomeric Fats: Facts and Fallacies," in *Dietary Fats and Health*, eds. Edward George Perkins and W. J. Visek (Chicago: American Oil Chemists' Society, 1983), 421–422.
- 250 *David Ozonoff . . . once observed*: David Ozonoff, "The Political Economy of Cancer Research," *Science and Nature* 2 (1979): 15.

- 250 *submitted a paper*: J. Edward Hunter and Thomas H. Applewhite, "Isomeric Fatty Acids in the US Diet: Levels and Health Perspectives," *American Journal of Clinical Nutrition* 44, no. 6 (1986): 707–717.
- 250 *Enig claimed that Hunter's calculations*: "FASEB Nutrition Study Using 'Flawed Data,'" 52–54.
- 251 *when the reality was 22 percent*: Mary G. Enig, *Trans Fatty Acids in the Food Supply: A Comprehensive Report Covering 60 Years of Research*, 2nd ed. (Silver Spring, MD: Enig Associates, 1995), 152.
- 251 *According to her measurements*: Ibid., 108.
- 251 *says Enig's colleague, Beverly B. Teter*: Beverly B. Teter, interview with author, December 15, 2003.
- 251 *Enig's best estimate*: Mary G. Enig et al., "Isomeric *Trans* Fatty Acids in the US Diet," *Journal of the American College of Nutrition* 9, no. 5 (1990): 471–486.
- 251 *set up by FASEB in 1986*: Sue Ann Anderson, "Guidelines for Use of Dietary Intake Data," *Journal of the American Dietetic Association* 88, no. 10 (1988): 1258–1260.
- 251 *"No one other than Enig"*: "Trans Fatty Acids Dispute Rages in Letters to FASEB," editorial, *Food Chemical News*, May 30, 1988, 8.
- 251 *"unwarranted and unsubstantiated" . . . "physiological effects"*: Ibid., 6.
- 251 *"trans fatty acids do not pose any harm"*: Ibid.
- 251 *publicly wondered in a letter*: Ibid.
- 252 *grumbled Hunter*: J. Edward Hunter, interview with author, December 17, 2003.
- 252 *read and been troubled . . . to look into it*: Martijn B. Katan, interview with author, September 27, 2005.
- 252 *Korver explains that*: Onno Korver, interview with author, November 2, 2007.
- 252 *"It took some persuasion"*: Ibid.
- 252 *Katan conducted a feeding trial*: Ronald P. Mensink and Martijn B. Katan, "Effect of Dietary *Trans* Fatty Acids on High-Density and Low-Density Lipoprotein Cholesterol Levels in Healthy Subjects," *New England Journal of Medicine* 323, no. 7 (1990): 439–445.
- 253 *"I thought the HDL-effect must be incorrect"*: Katan, interview.
- 253 *Associated Press headline*: "Margarine's Fatty Acids Raise Concern," Associated Press, August 16, 1990.
- 253 *a letter to the editor*: Robert M. Reeves, "Letter to the Editor: Effect of Dietary *Trans* Fatty Acids on Cholesterol Levels," *New England Journal of Medicine* 324, no. 5 (1991): 338–340.
- 253 *"not totally convincing"*: Hunter, interview.
- 253 *says Katan*: Katan, interview.
- 253 *number of follow-up studies*: Peter L. Zock and Martijn B. Katan, "Hydrogenation Alternatives: Effects of *Trans* Fatty Acids and Stearic Acid Versus Linoleic Acid on Serum Lipids and Lipoproteins in Humans," *Journal of Lipid Research* 33 (1992): 399–410; Alice H. Lichtenstein et al., "Hydrogenation Impairs the Hypolipidemic Effect of Corn Oil in Humans," *Arteriosclerosis and Thrombosis* 13, no. 2 (1993): 154–161; Randall Wood et al., "Effect of Butter, Mono- and Polyunsaturated Fatty Acid-Enriched Butter, *Trans* Fatty Acid Margarine, and Zero *Trans* Fatty Acid Margarine on Serum Lipids

- and Lipoproteins in Healthy Men,” *Journal of Lipid Research* 34, no. 1 (1993): 1–11; Randall Wood et al., “Effect of Palm Oil, Margarine, Butter and Sunflower Oil on Serum Lipids and Lipoproteins of Normocholesterolemic Middle-Aged Men,” *Journal of Nutritional Biochemistry* 4, no. 5 (1993): 286–297; Antti Aro et al., “Stearic Acid, Trans Fatty Acids, and Dairy Fat: Effects on Serum and Lipoprotein Lipids, Apolipoproteins, Lipoprotein(a), and Lipid Transfer Proteins in Healthy Subjects,” *American Journal of Clinical Nutrition* 65, no. 5 (1997): 1419–1426.
- 253 *as ISEO experts pointed out*: Thomas H. Applewhite, “Trans-Isomers, Serum Lipids and Cardiovascular Disease: Another Point of View,” *Nutrition Reviews* 51, no. 11 (1993): 344–345.
- 254 *“close all of them”*: Korver, interview.
- 254 *observes Katan*: Katan, interview.
- 255 *“All of us get industry money”*: Robert J. Nicolosi, interview with author, October 27, 2005.
- 255 *Gerald McNeill . . . spelled this out for me*: Gerald McNeill, interview with author, December 10, 2012 and January 29, 2014.
- 255 *a number of reviews have shown that industry-funded trials*: See, for instance, Justin E. Bekelman, “Scope and Impact of Financial Conflicts of Interest in Biomedical Research: A Systematic Review,” *Journal of the American Medical Association* 289, no. 4 (2003): 454–465.
- 256 *“therefore neutralize them”*: Joseph T. Judd, interview with author, October 27, 2005.
- 256 *Judd confirmed them*: Joseph T. Judd et al., “Dietary Trans Fatty Acids: Effects on Plasma Lipids and Lipoproteins of Healthy Men and Women,” *American Journal of Clinical Nutrition* 59, no. 4 (1994): 861–868.
- 256 *recalled Judd*: Judd, interview.
- 256 *relished K. C. Hayes*: K. C. Hayes, interview with author, February 18, 2008.
- 256 *acknowledged Hunter*: Hunter, interview.
- 256 *found himself transferred*: George Wilhite, interview with author, February 26, 2008.
- 256 *said Michael Mudd*: Michael Mudd, interview with author, September 30, 2005.
- 257 *said Mudd*: Ibid.
- 257 *yet another review*: Penny M. Kris-Etherton and Robert J. Nicolosi, “Trans Fatty Acids and Coronary Heart Disease Risk,” International Life Sciences Institute, Technical Committee on Fatty Acids, ILSI Press, 1995; reprinted in “Trans Fatty Acids and Coronary Heart Disease Risk,” *American Journal of Clinical Nutrition* 62, no. 3, suppl. (1995): 655S–708S.
- 257 *said Penny Kris-Etherton*: Penny Kris-Etherton, interview with author, June 8, 2007.
- 257 *Katan considered the report*: Katan, interview.

9. Exit Trans Fats, Enter Something Worse?

- 260 *found that eating trans fats was correlated*: Walter C. Willett et al., “Intake of Trans Fatty Acids and Risk of Coronary Heart Disease among Women,” *Lancet* 341, no. 8845 (1993): 581–585.
- 260 *an opinion piece*: Walter C. Willett and Alberto Ascherio, “Trans Fatty Acids: Are the Effects Only Marginal?,” *American Journal of Public Health* 84, no. 5 (1994): 722–724.

- 260 *"I'll never forget as long as I live"*: Michael Mudd, interview with author, September 30, 2005.
- 261 *"It's a month that will live with me in infamy"*: Rick Cristol, interview with author, October 27, 2005.
- 261 *"The industry went nuclear over it"*: Martijn B. Katan, interview with author, September 27, 2005.
- 262 *July 1994 group*: "Trans Fatty Acids and Risk of Myocardial Infarction," Toxicology Forum Annual Meeting, July 11–15, 1994.
- 262 *After Willett presented his epidemiological findings*: Ibid., and Samuel Shapiro, interview with author, December 27, 2005.
- 262 *No one really knows exactly*: Ibid.
- 263 *"weak" to "very weak"*: David J. Hunter et al., "Comparisons of Measures of Fatty Acid Intake by Subcutaneous Fat Aspirate, Food Frequency Questionnaire, and Diet Records in a Free-Living Population of US Men," *American Journal of Epidemiology* 135, no. 4 (1992): 418–427.
- 263 *National Cancer Institute concluded*: Ernst J. Schaefer et al., "Lack of Efficacy of a Food-Frequency Questionnaire in Assessing Dietary Macronutrient Intakes in Subjects Consuming Diets of Known Composition," *American Journal of Clinical Nutrition* 71, no. 3 (2000): 746–751. Other problems with the food-frequency questionnaire are described in the following papers: Somdat Mahabir et al., "Calorie Intake Misreporting by Diet Record and Food Frequency Questionnaire Compared to Doubly Labeled Water among Postmenopausal Women," *European Journal of Clinical Nutrition* 60, no. 4 (2005): 561–565; Alan R. Kristal, Ulrike Peters, and John D. Potter, "Is It Time to Abandon the Food Frequency Questionnaire?" *Cancer Epidemiology, Biomarkers and Prevention* 14, no. 12 (2005): 2826–2828; Arthur Schatzkin et al., "A Comparison of a Food Frequency Questionnaire with a 24-Hour Recall for Use in an Epidemiological Cohort Study: Results from the Biomarker-Based Observing Protein and Energy Nutrition (OPEN) Study," *International Journal of Epidemiology* 32, no. 6 (2003): 1054–1062.
- 263 *hardly the full list of concerns*: Sheila A. Bingham, "Limitations of the Various Methods for Collecting Dietary Intake Data," *Annals of Nutrition and Metabolism* 35, no. 3 (1991): 117–127.
- 263 *thirtyfold increase*: R. Doll et al., "Mortality in Relation to Smoking: 40 Years' Observations on Male British Doctors," *British Medical Journal* 309, no. 6959 (1994): 901–911.
- 264 *Richard Hall . . . recalled*: Richard Hall, interview with author, December 19, 2007.
- 264 *Michael Pariza . . . said*: Michael Pariza, interview with author, February 6, 2008.
- 264 *published multiple articles*: Frank Sacks and Lisa Litlin, "Trans-Fatty-Acid Content of Common Foods," *New England Journal of Medicine* 329, no. 26 (1993): 1969–1970; K. Michels and F. Sacks, "Trans Fatty Acids in European Margarines," *New England Journal of Medicine* 332, no. 8 (1995): 541–542; Tim Byers, "Hardened Fats, Hardened Arteries?" *New England Journal of Medicine* 337, no. 21 (1997), 1544–1545; A. Ascherio et al., "Trans Fatty Acids and Coronary Heart Disease," *New England Journal of Medicine* 340, no. 25 (1999): 1994–1998; S. J. Dyerberg, and A. N. Astrup, "High Levels of Industrially Produced Trans Fat in Popular Fast Foods," *New England Journal of Medicine*

- 354, no. 15 (2006): 1650–1652; D. Mozaffarian et al., “Trans Fatty Acids and Cardiovascular Disease,” *New England Journal of Medicine* 354, no. 15 (2006): 1601–1613.
- 265 “multiple testing” . . . said S. Stanley Young: S. Stanley Young, interview with author, January 2, 2007; S. Stanley Young, “Gaming the System: Chaos from Multiple Testing,” *IMS Bulletin* 36, no. 10 (2007): 13.
- 265 *Looking at the astrological signs*: Peter C. Austin et al., “Testing Multiple Statistical Hypotheses Resulted in Spurious Associations: A Study of Astrological Signs and Health,” *Journal of Clinical Epidemiology* 59, no. 9 (2006): 964–969.
- 265 said Bob Nicolosi: Bob Nicolosi, interview with author, October 27, 2005.
- 265 “We are really conducting a very large human-scale”: “Trans Fatty Acids and Risk of Myocardial Infarction,” Toxicology Forum Annual Meeting.
- 266 *originally been a major force . . . headlining them as “Trans”*: Elaine Blume, “The Truth About Trans: Hydrogenated Oils Aren’t Guilty as Charged,” *Nutrition Action Healthletter* 15, no. 2 (1988): 8–9; Margo Wootan, Bonnie Liebman, and Wendie Rosofsky, “Trans: The Phantom Fat,” *Nutrition Action Healthletter* 23, no. 7 (1996): 10–14.
- 266 said Jacobson: Michael Jacobson, interview with author, October 25, 2005.
- 267 FDA issued a “proposed rule”: Food and Drug Administration, Department of Health and Human Services, “Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims,” *Federal Register* 68, no. 133 (July 11, 2003), docket no. 94P–0036: 41436.
- 267 *the IOM expert panel recommended*: Institute of Medicine of the National Academies, Panel on Macronutrients, Panel on the Definition of Dietary Fiber, Subcommittee on Upper Reference Levels of Nutrients, Subcommittee on Interpretation and Uses of Dietary Reference Intakes, and the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes, “Letter Report on Dietary Reference Intakes for Trans Fatty Acids,” drawn from the report, *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids*, part 1 (Washington, DC: National Academies Press, 2002), 14.
- 267 *would have excessively disparaged*: FDA, *Federal Register* 68, 41459.
- 267 “scientifically inaccurate and misleading”: *Ibid.*, 41452.
- 268 “sufficient” to conclude: *Ibid.*, 41444.
- 268 *were deemed secondary*: *Ibid.*, 41448.
- 268 *it has long suffered*: See, for example, “The F.D.A. in Crisis: It Needs More Money and Talent,” editorial, *New York Times*, February 3, 2008, 14.
- 268 *Mark Matlock . . . described to me*: Mark Matlock, interview with author, November 7, 2005.
- 269 *said Farr*: Walter Farr, interview with author, February 22, 2008.
- 269 “had to confess them”: Bruce Holub, interview with author, September 23, 2007.
- 269 *in some 42,720 packaged food products*: Food and Drug Administration, Department of HHS, “Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims: Proposed Rule” (1999), 62776–62777.
- 269 *said ADM’s Mark Matlock*: Matlock, interview, October 9, 2005.
- 270 *said Pat Verduin*: Quoted in Kim Severson and Melanie Warner, “Fat Substitute Is Pushed Out of the Kitchen,” *New York Times*, February 15, 2005, A1.

- 270 *Said Martijn Katan*: Martijn Katan, interview with author, September 27, 2005.
- 270 *exclaimed Gil Leveille*: Gil Leveille, interview with author, February 27, 2008.
- 271 *pointed out Au Bon Pain's Master Baker*: Quoted in P. Cobe et al., "Best Do-Over That We'll All Be Doing Soon," *Restaurant Business*, April 6, 2007.
- 271 *said Kris Charles*: Quoted in Delroy Alexander, Jeremy Manier, and Patricia Callahan, "For Every Fad, Another Cookie: How Science and Diet Crazes Confuse Consumers, Reshape Recipes and Rail, Ultimately, to Reform Eating Habits," *Chicago Tribune*, August 23, 2005.
- 271 *creamy middle melted . . . wafers tended to break*: Ibid.
- 271 *what he wanted was an injunction*: Stephen L. Joseph, interview with author, November 2003.
- 272 *"deeply concerned and angry"*: BanTransFat.com, Inc., "Citizen Petition Regarding Trans Fats Labeling," Ban Trans Fats, May 22, 2003, <http://bantransfats.com/fdapetition.html>.
- 272 *to reformulate the Oreo cookie*: Kantha Shelke, "How Food Processors Removed Trans Fats Ahead of Deadline," *Food Processing*, October 4, 2006, <http://www.foodprocessing.com/articles/2006/013/>.
- 273 *"Interesterification is akin to"*: Gil Leveille, interview with author, June 24, 2006.
- 273 *"We just don't know" . . . "another trans lurking"*: Ibid.
- 274 *the "fat replacers"*: Mimma Perneti et al., "Structuring Edible Oil with Lecithin and Sorbitan Tri-Stearate," *Food Hydrocolloids* 21, nos. 5–6 (2007): 855–861.
- 274 *Danisco*: Keith Seiz, "Formulations: Sourcing Ideal Trans-Free Oils," *Functional Foods & Nutraceuticals*, July 2005, 37.
- 275 *the oil may actually be beneficial for health*: See the entire supplement, Pramad Khasla and Kalyanan Sundram, eds., "A Supplement on Palm Oils," *Journal of the American College of Nutrition* 29, no. 3, suppl. (2010): 237S–342S. Note that the editors are employed by the palm oil industry.
- 276 *omega-6s are related to depression*: Joseph R. Hibbeln and Norman Salem Jr., "Dietary Polyunsaturated Fatty Acids and Depression: When Cholesterol Does Not Satisfy," *American Journal of Clinical Nutrition* 62, no. 1 (1995): 1–9; J. R. Hibbeln et al., "Do Plasma Polyunsaturates Predict Hostility and Violence?" in *Nutrition and Fitness: Metabolic and Behavior Aspects in Health and Disease, World Review of Nutrition and Diagnostics* 82, eds., A. P. Simopoulos and K. N. Pavlou (Basel, Switzerland: Karger, 1996): 175–186.
- 276 *AHA most recent dietary review*: William S. Harris et al., "Omega-6 Fatty Acids and Risk for Cardiovascular Disease. A Scientific Advisory from the American Heart Association Nutrition Subcommittee of the Council of Nutrition, Physical Activity, and Metabolism; Council on Cardiovascular Nursing; and Council on Epidemiology and Prevention," *Circulation* 119, no. 6 (2009): 902–907.
- 276 *Gerald McNeill . . . explained that*: Gerald McNeill, interview with author, December 10, 2012.
- 277 *"As those oils are heated"*: Ibid.
- 277 *Robert Ryther . . . "It builds up"*: Robert Ryther, interview with author, January 11, 2013.
- 278 *"Anybody that has a fryer has this problem"*: Ibid.

- 278 *higher among chefs and restaurant “workers”*: D. Coggon et al., “A Survey of Cancer and Occupation of Young and Middle Aged Men. Cancers of the Respiratory Tract,” *British Journal of Industrial Medicine* 43, no. 5 (1986): 332–338; E. Lund and J. K. Borgan, “Cancer Mortality among Cooks,” *Tidsskrift for Den Norske Lægeforening* 107 (1987): 2635–2637; I. Foppa and C. Minder, “Oral, Pharyngeal and Laryngeal Cancer as a Cause of Death among Swiss Cooks,” *Scandinavian Journal of Work, Environment and Health* 18 (1992): 287–292. See, also, She-Ching Wu and Gow-Chin Yen, “Effects of Cooking Oil Fumes on the Genotoxicity and Oxidative Stress in Human Lung Carcinoma (A-549) Cells,” *Toxicology in Vitro* 18, no. 5 (2004): 571–580.
- 278 *“probably” carcinogenic to humans*: World Health Organization, International Agency for Research on Cancer (IARC), “Household Use of Solid Fuels and High-Temperature Frying,” IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 95 (Lyon, France: IARC, 2006), 392.
- 279 *piece of fried chicken*: Jian Tang et al., “Isolation and Identification of Volatile Compounds from Fried Chicken,” *Journal of Agricultural and Food Chemistry* 31, no. 6 (1983): 1287–1292.
- 279 *published a large body of work*: Reviewed in E. W. Crampton et al., “Studies to Determine the Nature of the Damage to the Nutritive Value of Some Vegetable Oils from Heat Treatment: IV. Ethyl Esters of Heat Polymerized Linseed, Soybean and Sunflower Seed Oils,” *Journal of Nutrition* 60, no. 1 (1956): 13–24. See also John S. Andrews et al., “Toxicity of Air-Oxidized Soybean Oil,” *Journal of Nutrition* 70, no. 2 (1960): 199–210; and Samuel M. Greenberg and A. C. Frazer, “Some Factors Affecting the Growth and Development of Rats Fed Rancid Fat,” *Journal of Nutrition* 50, no. 4 (1953): 421–440.
- 279 *“stuck to the wire floor”*: Crampton et al., “Studies to Determine the Nature of the Damage to Nutritive Value,” 18.
- 279 *the chemist Denham Harman*: Denham Harman, “Letter to the Editor. Atherosclerosis: Possible Ill-Effects of the Use of Highly Unsaturated Fats to Lower Serum Cholesterol Levels,” *Lancet* 275, no. 7005 (1957): 1116–1117.
- 280 *food chemists from Japan reported*: Takehi Ko Ohfuji and Takashi Kaneda, “Characterization of Toxic Components in Thermally Oxidized Oil,” *Lipids* 8, no. 6 (1973): 353–359; Toshimi Akiya, Chuji Araki, and Kiyoko Igarashi, “Novel Methods of Evaluation Deterioration and Nutritive Value of Oxidized Oil,” *Lipids* 8, no. 6 (1973): 348–352.
- 280 *pathologist . . . reported*: Hans Kaunitz and Ruth E. Johnson, “Exacerbation of the Heart and Liver Lesions in Rats by Feeding Various Mildly Oxidized Fats,” *Lipids* 8, no. 6 (1973): 329–336.
- 280 *in 1991, he took stock of the field*: Hermann Esterbauer, Rudolf Jörg Schaur, and Helmwald Zollner, “Chemistry and Biochemistry of 4-Hydroxynonenal, Malonaldehyde and Related Aldehydes,” *Free Radical Biology & Medicine* 11, no. 1 (1991): 81–128; “rapid cell death”: 91, “great diversity of deleterious effects” and “rather likely”: 118.
- 280 *Aldehydes are “very reactive compounds . . . reacting constantly”*: A. Saari Csallany, interview with author, February 21, 2013.
- 280 *one of the reasons that aldehydes were ignored*: Earl G. Hammond, interview with author, October 9, 2007.

- 280 *Csallany refined the ability to detect*: Song-Suk Kim, Daniel D. Gallaher, and A. Saari Csallany, "Lipophilic Aldehydes and Related Carbonyl Compounds in Rat and Human Urine," *Lipids* 34, no. 5 (1999): 489–495.
- 281 *showed that they were produced by a range*: C. M. Seppanen and A. Saari Csallany, "Simultaneous Determination of Lipophilic Aldehydes by High-Performance Liquid Chromatography in Vegetable Oil," *Journal of the American Oil Chemists' Society* 78, no. 12 (2001): 1253–1260; C. M. Seppanen and A. Saari Csallany, "Formation of 4-Hydroxynonenal, a Toxic Aldehyde, in Soybean Oil at Frying Temperature," *Journal of the American Oil Chemists' Society* 79, no. 10 (2002): 1033–1038; In Hwa Han and A. Saari Csallany, "Formation of Toxic a,b-Unsaturated 4-Hydroxy-Aldehydes in Thermally Oxidized Fatty Acid Methyl Esters," *Journal of the American Oil Chemists' Society* 86, no. 3 (2009): 253–260.
- 281 *not detected by the standard tests*: Csallany, interview; Mark Matlock, interview with author, February 19, 2013; Kathleen Warner, interview with author, November 8, 2013.
- 281 *One of Csallany's recent projects*: A. Saari Csallany et al., "4-Hydroxynonenal (HNE), a Toxic Aldehyde in French Fries from Fast Food Restaurants," poster presentation at the HNE Symposium of the 16th Bi-Annual Conference of the Free Radical Society and HNE Symposium, London, September 1–9, 2012.
- 281 *She would like to do more studies*: Csallany, interview.
- 281 *says Giuseppe Poli*: Giuseppe Poli, interview with author, February 12, 2014.
- 281 *cause LDL-cholesterol to oxidize*: Hermann Esterbauer et al., "Autoxidation of Human Low Density Lipoprotein: Loss of Polyunsaturated Fatty Acids and Vitamin E and Generation of Aldehydes," *Journal of Lipid Research* 28, no. 5 (1987): 495–509.
- 281 *role in atherosclerosis*: I. Staprans et al., "Oxidized Cholesterol in the Diet Accelerates the Development of Atherosclerosis in LDL Receptor- and Apolipoprotein E-Deficient Mice," *Arteriosclerosis, Thrombosis, and Vascular Biology* 20, no. 3 (2000): 708–714. On all diseases: see major reviews on aldehydes: Giuseppe Poli et al., "4-Hydroxynonenal: A Membrane Lipid Oxidation Product of Medicinal Interest," *Medicinal Research Reviews* 28, no. 4 (2008): 569–631; Anne Negre-Salvayre et al., "Pathological Aspects of Lipid Peroxidation," *Free Radical Research* 44, no. 10 (2010): 1125–1171; Neven Zarkovic, "4-Hydroxynonenal as a Bioactive Marker of Pathophysiological Processes," *Molecular Aspects of Medicine* 24, nos. 4–5 (2003): 285–286; Rachel M. Haywood et al., "Detection of Aldehydes and Their Conjugated Hydroperoxydiene Culinary Oils and Fats: Investigations Using High Resolution Proton NMR Spectroscopy," *Free Radical Research* 22, no. 5 (1995): 441–482; Hermann Esterbauer, "Cytotoxicity and Genotoxicity of Lipid Oxidation Products," *American Journal of Clinical Nutrition* 57, no. 5, suppl. (1993): 779S–786S; Giuseppe Poli and Rudolf Jörg Schaur, eds., "4-Hydroxynonenal: A Lipid Degradation Product Provided with Cell Regulatory Functions," *Molecular Aspects of Medicine* 24, nos. 4–5, suppl. (2003): 147S–313S; V. J. Feron et al., "Aldehydes: Occurrence, Carcinogenic Potential, Mechanism of Action and Risk Assessment," *Mutation Research* 259, nos. 3–4 (1991): 363–385; Quing Zhang et al., "Chemical Alterations Taken Place During Deep-Fat Frying Based on Certain Reaction Products: A Review," *Chemistry and Physics of Lipids* 165, no. 6 (2012): 662–681; Martin Grootveld et al., "Health Effects of Oxidized Heated Oils," *Foodservice Research International* 13, no. 1 (2001): 41–55.

- 281 *formal marker for the process*: Zarkovic, “4-Hydroxynonenal as a Bioactive Marker,” 285–286.
- 281 *stress was observed in an experiment on mice*: Daniel J. Conklin et al., “Acrolein Consumption Induces Systemic Dyslipidemia and Lipoprotein Modification,” *Toxicology and Applied Pharmacology* 243, no. 1 (2010): 1–12; Daniel J. Conklin et al., “Acrolein-Induced Dyslipidemia and Acute-Phase Response Are Independent of HMG-CoA Reductase,” *Molecular Nutrition and Food Research* 55 (2011): 1411–1422.
- 282 *told me he was “stunned” to find*: Daniel J. Conklin, interview with author, November 8, 2013.
- 282 *a trial in New Zealand*: A. J. Wallace et al., “The Effects of Meals Rich in Thermally Stressed Olive and Safflower Oils on Postprandial Serum Paraoxonase Activity in Patients with Diabetes,” *European Journal of Clinical Nutrition* 55, no. 11 (2001): 951–958.
- 282 *olive oil has consistently been shown*: Andres Fullana, Angel A. Carbonell-Barrachina, and Sukh Sidhu, “Comparison of Volatile Aldehydes Present in the Cooking Fumes of Extra Virgin Olive, Olive, and Canola Oils,” *Journal of Agriculture and Food Chemistry* 52, no. 16 (2004): 5207–5214.
- 282 *fats that produce the fewest oxidation products*: On beef fat and lard, see Andrew W. D. Claxson et al., “Generation of Lipid Peroxidation Products in Culinary Oils and Fats during Episodes of Thermal Stressing: A High Field ¹H NMR Study,” *FEBS Letters* 355, no. 1 (1994): 88. On butter, see Hwa Han and A. Saari Csallany, “Temperature Dependence of HNE Formation in Vegetable Oils and Butter Oil,” *Journal of the American Oil Chemists’ Society* (June 2008). On coconut oil, see Claxson et al., “Generation of Lipid Peroxidation Products in Culinary Oils,” 88.
- 282 *“First they were alarmed, then nothing”*: Csallany, interview.
- 282 *a letter to the journal Food Chemistry*: Martin Grootveld, Christopher J. L. Silwood, and Andrew W. D. Claxson, “Letter to the Editor. Warning: Thermally-Stressed Polyunsaturates are Damaging to Health,” *Food Chemistry* 67 (1999): 211–213.
- 282 *followed by a paper directed to alert*: Martin Grootveld et al., “Health Effects of Oxidized Heated Oils,” *Foodservice Research International* 13, no. 1 (2001): 41–55.
- 282 *“Since I am not a food chemist”*: Rudolf Jörg Schaur, email message to author, February 10, 2014.
- 282 *In 2006, the European Union formed a group*: Tilman Grune, Neven Zarkovic, and Kostelidou Kalliopi, “Lipid Peroxidation Research in Europe and the COST B35 Action ‘Lipid Peroxidation Associated Disorders,’” *Free Radical Research* 44, no. 10 (2010): 1095–1097.
- 283 *simply to “hope”*: Warner, interview with author, November 8, 2013.
- 283 *Large fast-food chains also employ sophisticated*: Bob Wainright, email message to author, February 9, 2014.
- 283 *he couldn’t understand . . . so preoccupied*: Poli, interview.
- 283 *“how deadly used frying oils are”*: Lars Wiedermann, email message to author, November 9, 2013.
- 283 *Mark Matlock at ADM*: Mark Matlock, interview with author, February 19, 2013.
- 283 *FDA press office finally responded*: Shelly Burgess, email message to author, April 11, 2013.

- 284 *European Food and Safety Authority*: European Food and Safety Authority, “Analysis of Occurrence of 3-monochloropropane-1,2-diol (3-MCPD) in Food in Europe in the Years 2009–2011 and Preliminary Exposure Assessment,” *EFSA Journal* 11, no. 9 (2013): 3381. doi:10.29303/j.efsa.2013.3381.
- 284 *schools of medicine and public health*: See, for instance, Beatrice Trum Hunter, *Consumer Beware* (New York: Simon & Schuster, 1971): 30–50.

10. Why Saturated Fat Is Good for You

- 286 *according to statistics from the Centers for Disease Control*: Centers for Disease Control and Prevention (CDC), “Trends in Intake of Energy and Macronutrients—United States, 1971–2000,” *Morbidity and Mortality Weekly Report* 53, no. 4 (2004): 80–82.
- 287 *“plant-based diet that”*: Dietary Guidelines Advisory Committee, prepared for the Agricultural Research Service, US Department of Agriculture and US Department of Health and Human Services, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. To the Secretary of Agriculture and the Secretary of Health and Human Services*, 7th ed. (Washington, DC: US Government Printing Office, May 2010), 2.
- 287 *Dr. Atkins’ Diet Revolution*: Robert C. Atkins, *Dr. Atkins’ Diet Revolution: The High Calorie Way to Stay Thin Forever* (New York: David McKay, 1972).
- 288 *experiment written up in 1963*: Edgar S. Gordon, Marshall Goldberg, and Grace J. Chosy, “A New Concept in the Treatment of Obesity,” *Journal of the American Medical Association* 186, no. 1 (1963): 156–166.
- 288 *“Vogue Diet” for a while*: “Beauty: *Vogue’s* Take It Off, Keep It Off Super Diet,” *Vogue* 155, no. 10 (1970): 184–185.
- 289 *“guilty of malpractice”*: Select Committee on Nutrition and Human Needs of the United States Senate, “Obesity and Fad Diets,” Ninety-Third Congress (Washington, DC: US Government Printing Office, April 12, 1973).
- 289 *“a nutritionist’s nightmare”*: Quoted in “The Battle of Pork Rind Hill,” *Newsweek*, March 5, 2000.
- 289 *cover of Time*: Joel Stein, “The Low-Carb Diet Craze,” *Time*, November 1, 1999.
- 289 *Ornish*, *Newsweek*: Geoffrey Cowley, “Healer of Hearts: Dean Ornish’s Low-Tech Methods Could Transform American Medicine. But the Doctor Is Still Striving to Transform Himself,” *Newsweek*, March 16, 1998.
- 289 *coined the term “diabetesity”*: Robert C. Atkins, *Larry King Live*, CNN, January 6, 2003.
- 289 *a CNN special*: “What’s the Healthiest Way to Lose Weight?” *Crossfire*, CNN, May 30, 2000.
- 290 *once told Larry King*: Atkins, *Larry King Live*.
- 290 *said Abby Bloch*: Abby Bloch, interview with author, August 24, 2005.
- 291 *done in by both poor management and a flagging interest*: Pallavi Gogoi, “Atkins Gets Itself in a Stew,” *Bloomberg Businessweek*, August 1, 2005.
- 291 *Alice Lichtenstein told me*: Alice C. Lichtenstein, interview with author, October 11, 2005.
- 292 *1863 pamphlet*: William Banting, “Letter on Corpulence: Addressed to the Public,” in *Letter on Corpulence* (New York: Cosimo Classics, 2005).

- 292 *began Banting's little book*: Ibid., 6–7.
- 292 *was then commonly treated in France*: Alfred W. Pennington, "Treatment of Obesity: Developments of the Past 150 Years," *American Journal of Digestive Diseases* 21, no. 3 (1954): 65.
- 292 *Banting took to eating three meals a day*: Ibid., 65–69.
- 293 *average life expectancy*: Paul Clayton and Judith Rowbotham, "How the Mid-Victorians Worked, Ate and Died," *International Journal of Environmental Research and Public Health* 6, no. 3 (2009): 1239.
- 293 *European . . . clinicians*: Per Hanssen, "Treatment of Obesity by a Diet Relatively Poor in Carbohydrates," *Acta Medica Scandinavica* 88, no. 1 (1936): 97–106; Robert Kemp, "Carbohydrate Addiction," *Practitioner* 190 (1963): 358–364; H. R. Rony, *Obesity and Leanness* (Philadelphia: Lea and Febiger, 1940).
- 293 *Yorke-Davies, used a version . . . lose 70 pounds*: Deborah Levine, "Corpulence and Correspondence: President William H. Taft and the Medical Management of Obesity," *Annals of Internal Medicine* 159, no. 8 (2013): 565–570.
- 293 *his memoir*, *Strong Medicine*: Blake F. Donaldson, *Strong Medicine* (London: Cassell, 1961).
- 293 *"fattest meat they could kill"*: Ibid., 34.
- 293 *"upper level" . . . "never found it"*: Ibid., 35.
- 294 *"antiobesity treatments"*: Ibid.
- 294 *"a lack of hunger between meals"*: Alfred W. Pennington, "Obesity in Industry: The Problem and Its Solution," *Industrial Medicine & Surgery* 18, no. 6 (1949): 259.
- 294 *7 to 10 pounds a month*: Alfred W. Pennington, "Symposium on Obesity: A Reorientation on Obesity," *New England Journal of Medicine* 248, no. 23 (1953): 963.
- 294 *Pennington wrote extensively*: Ibid., 959–964.
- 294 *"seemed to lie much deeper"*: Pennington, "Treatment of Obesity," 67.
- 295 *a hive of metabolic and hormonal activity*: E. Wertheimer and B. Shapiro, "The Physiology of Adipose Tissue," *Physiology Reviews* 28, no. 4 (1948): 451–464.
- 295 *altered hormonal levels in rats*: John R. Brobeck, "Mechanism of the Development of Obesity in Animals with Hypothalamic Lesions," *Physiological Reviews* 26, no. 4 (1946): 544.
- 295 *"attack" and "devour it" . . . "tigerish appetite"*: Ibid., 549.
- 295 *Similar results were found*: Ibid., 541–559. Also see A. W. Hetherington and S. W. Ranson, "The Spontaneous Activity and Food Intake of Rats with Hypothalamic Lesions," *American Journal of Physiology—Legacy Content* 136, no. 4 (1942): 609.
- 295 *people with tumors in the hypothalamus*: Brobeck, "Mechanism of the Development of Obesity," 541.
- 295 *insulin . . . appeared to trump all others*: C. Von Noorden, *Clinical Treatises on Pathology and Therapy of Disorders of Metabolism and Nutrition, Part VIII. Diabetes Mellitus* (New York: E. B. Treat, 1907), 60.
- 295 *doctors were fattening underweight children*: Louis Fischer and Julian Rogatz, "Insulin in Malnutrition," *Archives of Pediatrics & Adolescent Medicine* 31, no. 3 (1926): 363.
- 296 *an animal that had been deprived of insulin*: Wilhelm Falta, *Endocrine Diseases: Including Their Diagnosis and Treatment* (Philadelphia: P. Blakiston's Son, 1923), 584.

- 296 *Pennington described*: A. W. Pennington, "Obesity: Overnutrition or Disease of Metabolism?" *American Journal of Digestive Diseases* 20, no. 9 (1953): 268–274.
- 296 *Pennington reviewed this extensive body*: Alfred W. Pennington, "Obesity," *Medical Times* 80, no. 7 (1952): 390; Alfred W. Pennington, "A Reorientation on Obesity," *New England Journal of Medicine* 248, no. 23 (1953): 959–964.
- 298 *One of the more startling revelations . . . "obesity sextette"*: Donaldson, *Strong Medicine*, 2.
- 298 *"resorting less and less to drugs"*: *Ibid.*, 7.
- 298 *The population he found on Baffin Island*: Otto Schaefer, "Medical Observations and Problems in the Canadian Arctic: Part II," *Canadian Medical Association Journal* 81, no. 5 (1959): 387
- 298 *boatloads of food*: David Damas, *Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic* (Quebec: McGill-Queen's Press, 2002), 29–30.
- 299 *"consists of fresh meat"*: Schaefer, "Medical Observations and Problems in the Canadian Arctic: Part II," 386.
- 299 *Heart disease . . . "does not appear to exist"*: *Ibid.*, 387.
- 299 *were unable to cope*: Gerald W. Hankins, *Sunrise Over Pangnirtung: The Story of Otto Schaefer, M.D.* (Calgary, Canada: Arctic Institute of North America of the University of Calgary, 2000), 160.
- 300 *"a jolting abruptness"*: Otto Schaefer, "When the Eskimo Comes to Town," *Nutrition Today* 6, no. 6 (1971): 11.
- 300 *"self-inflicted genocide"*: Quoted in *Yukon News* (June 4, 1975), 19; Hankins, *Sunrise Over Pangnirtung*, 168.
- 300 *called all chronic illnesses the "saccharine diseases"*: Thomas L. Cleave and George Duncan Campbell, *Diabetes, Coronary Thrombosis, and the Saccharine Disease* (Bristol: John Wright & Sons, 1966).
- 300 *a fivefold increase*: James Walvin, *Fruits of Empire: Exotic Produce and British Taste, 1660–1800* (New York: New York University Press, 1997), 119.
- 300 *first cases of heart disease*: Leon Michaels, *The Eighteenth-Century Origins of Angina Pectoris: Predisposing Causes, Recognition and Aftermath*, *Medical History*, suppl. 21 (London: The Wellcome Trust Centre for the History of Medicine at UCL, 2001), 9.
- 301 *150 pounds of sugars*: US Department of Agriculture, "Profiling Food Consumption in America," *Agricultural Fact Book 2001–2002* (Washington, DC: US Government Printing Office, 2003), 20.
- 301 *George Prentice, a physician who spent time*: H. C. Trowell and D. P. Burkitt, eds., *Western Diseases: Their Emergence and Prevention* (London: Edward Arnold, 1981).
- 301 *quote from a 2002 World Health Organization report*: Joint WHO/FAO Expert Consultation, "Diet, Nutrition, and the Prevention of Chronic Diseases," *World Health Organization Technical Report Series* 916 (2003): 6.
- 302 *four highly portable and popular items*: There are many stories in Cleave and Campbell, *Diabetes, Coronary Thrombosis, and the Saccharine Disease*; Weston A. Price, *Nutrition and Physical Degeneration* (1936, repr., La Mesa, CA: The Price-Pottenger Nutrition Foundation, 2004); Vilhjalmur Stefansson, *The Fat of the Land*, enlarg. ed. of *Not By Bread Alone* (1946, repr., New York: Macmillan, 1956).

- 302 “*Hey doctor, all I’m eating is steak and eggs!*”: Eric C. Westman, interview with author, September 12, 2004.
- 303 *landmark trial*: Gary Foster et al., “Weight and Metabolic Outcomes after 2 Years on a Low-Carbohydrate versus Low-Fat Diet: A Randomized Trial,” *Annals of Internal Medicine* 153, no. 3 (2010): 147–157.
- 303 *he recounted to me*: Gary Foster, interview with author, August 18, 2005.
- 303 “*heretic*” in the field . . . “*reasons that were not serious*”: Stephen D. Phinney, email message to author, August 28, 2012.
- 304 “*We were pretty sure we’d prove*” . . . “*concept was correct*”: Ibid.
- 304 *he found just the opposite*: Stephen D. Phinney et al., “The Human Metabolic Response to Chronic Ketosis Without Caloric Restriction: Preservation of Submaximal Exercise Capability Without Reduced Carbohydrate Oxidation,” *Metabolism* 32, no. 8 (1983): 769–776.
- 305 *perfectly well, if not better, on ketones*: Robert S. Gordon, Jr. and Amelia Cherkes, “Unesterified Fatty Acids in Human Blood Plasma,” *Journal of Clinical Investigation* 35, no. 2 (1956): 206–212.
- 305 *can be created by the liver*: Combined Staff Clinic, “Obesity,” *American Journal of Medicine* 19, no. 1 (1955): 117
- 305 *related to the transition period*: Stephen D. Phinney et al., “The Human Metabolic Response to Chronic Ketosis without Caloric Restriction: Physical and Biochemical Adaptation,” *Metabolism* 32, no. 8 (1983): 757–768; P. C. Kelleher et al., “Effects of Carbohydrate-Containing and Carbohydrate-Restricted Hypocaloric and Eucaloric Diets on Serum Concentrations of Retinol-Binding Protein, Thyroxine-Binding Prealbumin and Transferrin,” *Metabolism* 32, no. 1 (1983): 95–101; G. L. Blackburn, “Mechanisms of Nitrogen Sparing with Severe Calorie Restricted Diets,” *International Journal of Obesity* 5, no. 3 (1981): 215–216.
- 305 *Phinney showed that this phenomenon*: Phinney et al., “The Human Metabolic Response to Chronic Ketosis.”
- 306 *In trials comparing the Atkins diet to the standard*: Jeff S. Volek et al., “Comparison of Energy-Restricted Very Low-Carbohydrate and Low-Fat Diets on Weight Loss and Body Composition in Overweight Men and Women,” *Nutrition & Metabolism* 1, no. 13 (2004): 1–32; J. W. Krieger et al., “Effects of Variation in Protein and Carbohydrate Intake on Body Mass and Composition During Energy Restriction: A Meta-Regression,” *American Journal of Clinical Nutrition* 83, no. 2 (2006): 260–274.
- 306 “*endothelial function*” . . . *has also been shown*: Jeff S. Volek et al., “Effects of Dietary Carbohydrate Restriction versus Low-Fat Diet on Flow-Mediated Dilation,” *Metabolism* 58, no. 12 (2009): 1769–1777.
- 306 *further experiments keeping his subjects’ weight constant*: Studies cited in Eric C. Westman, Jeff S. Volek, and Richard D. Feinman, “Carbohydrate Restriction Is Effective in Improving Atherogenic Dyslipidemia even in the Absence of Weight Loss,” *American Journal of Clinical Nutrition* 84, no. 6 (2006): 1549–1549.
- 306 *solid scientific backing to the treatment*: One suggestive study that predated Westman’s is Bruce R. Bistrian et al., “Nitrogen Metabolism and Insulin Requirements in Obese Diabetic Adults on a Protein-Sparing Modified Fast,” *Diabetes* 25, no. 6 (1976): 494–504.

- 307 *could even stop taking their diabetes medication*: Mary C. Vernon et al., “Clinical Experience of a Carbohydrate-Restricted Diet: Effect on Diabetes Mellitus,” *Metabolic Syndrome and Related Disorders* 1, no. 3 (2003): 234.
- 307 *Westman and his colleagues have argued*: Anthony Accurso et al., “Dietary Carbohydrate Restriction in Type 2 Diabetes Mellitus and Metabolic Syndrome: Time for a Critical Appraisal,” *Nutrition & Metabolism* 5, no. 1 (2008): 1–8.
- 307 *since authorities . . . ADA*: American Diabetes Association, position statement, “Nutrition Recommendations and Interventions for Diabetes,” *Diabetes Care* 31, suppl. 1 (2008): S66.
- 307 *conducting trials on a range of subjects*: Eric C. Westman et al., “Low-Carbohydrate Nutrition and Metabolism,” *American Journal of Clinical Nutrition* 86, no. 2 (2007): 276–284; Volek et al., “Comparison of Energy-Restricted Very Low-Carbohydrate and Low-Fat Diets,” 1–32; Jeff S. Volek et al., “Comparison of a Very Low-Carbohydrate and Low-Fat Diet on Fasting Lipids, LDL Subclasses, Insulin Resistance, and Postprandial Lipemic Responses in Overweight Women,” *Journal of the American College of Nutrition* 23, no. 2 (2004): 177–184; Matthew J. Sharman et al., *Human Nutrition and Metabolism* 134, no. 4 (2004): 880–885; Frederick F. Samaha et al., “A Low-Carbohydrate as Compared with a Low-Fat Diet in Severe Obesity,” *New England Journal of Medicine* 348, no. 21 (2003): 2074–2081; Linda Stern et al., “The Effects of Low-Carbohydrate versus Conventional Weight Loss Diets in Severely Obese Adults: One-Year Follow-up of a Randomized Trial,” *Annals of Internal Medicine* 140, no. 10 (2004): 778–786; William S. Yancy et al., “A Low-Carbohydrate, Ketogenic Diet versus a Low-Fat Diet to Treat Obesity and Hyperlipidemia: A Randomized, Controlled Trial,” *Annals of Internal Medicine* 140, no. 10 (2004): 769–777; James H. Hays et al., “Effect of a High Saturated Fat and No-Starch Diet on Serum Lipid Subfractions in Patients with Documented Atherosclerotic Cardiovascular Disease,” *Mayo Clinic Proceedings* 78, no. 11 (2003): 1331–1336; Kelly A. Meckling, Caitriona O’Sullivan, and Dayna Saari, “Comparison of a Low-Fat Diet to a Low-Carbohydrate Diet on Weight Loss, Body Composition, and Risk Factors for Diabetes and Cardiovascular Disease in Free-Living, Overweight Men and Women,” *Journal of Clinical Endocrinology & Metabolism* 89, no. 6 (2004): 2717–2723; Eric C. Westman, “A Review of Low-Carbohydrate Ketogenic Diets,” *Current Atherosclerosis Reports* 5 (2003): 476–483.
- 308 *One of the more extraordinary experiments*: William S. Yancy et al., “A Randomized Trial of a Low-carbohydrate Diet vs Orlistat Plus a Low-fat Diet for Weight Loss,” *Archives of Internal Medicine* 170, no. 2 (2010): 136–145.
- 308 *Volek says . . . “people are just quiet”*: Jeff Volek, interview with author, April 18, 2006.
- 309 *Westman has written poignantly*: Eric C. Westman, “Rethinking Dietary Saturated Fat,” *Food Technology* 63, no. 2 (2009): 30.
- 309 *“more unbiased, balanced”*: Jeff S. Volek, Matthew J. Sharman, and Cassandra E. Forsythe, “Modification of Lipoproteins by Very Low-Carbohydrate Diets,” *Journal of Nutrition* 135, no. 6 (2005): 1339–1342.
- 309 *results from a two-year trial*: Iris Shai et al., “Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet,” *New England Journal of Medicine* 359, no. 3 (2008): 229–241.

- 310 Four years after the experiment ended, Shai conducted a follow-up evaluation to see how her subjects had fared. By most measures, the former Mediterranean dieters looked the healthiest and were the slimmest, while those who had been eating an Atkins-style diet gained back most of the weight they had lost. The low-fat group continued to fare the least well on all outcome measures. However, given that four years had elapsed since the end of the trial and that no follow-up efforts had been made to sustain dietary changes (or measure voluntary continued adherence to those changes), these results must be interpreted with caution. It's quite likely, for instance, that the Mediterranean-diet subjects had an easier time continuing their dietary intervention, because this was their local fare. By contrast, the Atkins' group was on an atypical diet, believed by most medical professionals to endanger health, and therefore may have been less likely to maintain any dietary changes. Four years after the trial, one can't know whether outcome measures reflect the original diets. Dan Schwarzfuchs, Rachel Golan, and Iris Shai, Letter to the Editor, "Four-Year Follow-Up After Two-Year Dietary Interventions," *New England Journal of Medicine* 367, no. 14 (2012): 1373–1374.
- 312 *Other researchers and scientists had published:* Russell L. Smith and Edward R. Pinckney, *Diet, Blood Cholesterol and Coronary Heart Disease: A Critical Review of the Literature* (Santa Monica, CA: privately published, 1988); Thomas J. Moore, *Heart Failure: A Critical Inquiry into American Medicine and the Revolution in Heart Care* (New York: Random House, 1989); George V. Mann, "A Short History of the Diet/Heart Hypothesis," in *Coronary Heart Disease: The Dietary Sense and Nonsense. An Evaluation by Scientists*, ed. George V. Mann for the Veritas Society (London: Janus, 1993), 1–17; Uffe Ravnskov, *The Cholesterol Myths: Exposing the Fallacy that Saturated Fat and Cholesterol Cause Heart Disease* (Washington, DC: New Trends, 2000).
- 312 "What if It's All Been a Big Fat Lie?": Gary Taubes, "What if It's All Been a Big Fat Lie?" *New York Times Magazine*, July 7, 2002.
- 312 *In 2007, he published a book:* Gary Taubes, *Good Calories, Bad Calories: Challenging the Conventional Wisdom on Diet, Weight Control, and Disease* (New York: Alfred A. Knopf, 2007).
- 313 *Gina Kolata . . . called:* Gina Kolata, "Carbophobia," *New York Times*, October 7, 2007.
- 313 *Taubes wrote later on his blog:* Gary Taubes, "Catching Up on Lost Time: The Ancestral Health Symposium, Food Reward, Palatability, Insulin Signaling and Carbohydrates, Kettles, Pots and Other Odds and Ends (with Some Philosophy of Science as a Special Added Attraction). Part I," *Gary Taubes* (blog), September 2, 2011, accessed February 12, 2014 <http://garytaubes.com/2011/09/catching-up-on-lost-time-ancestral-health-symposium-food-reward-palatability-insulin-signaling-carbohydrates-kettles-pots-other-odds-ends-part-i/>.
- 314 "borders on inexcusable": Ibid.
- 314 *Los Angeles Times declared:* Marni Jameson, "A Reversal on Carbs: Fat Was Once the Devil. Now More Nutritionists Are Pointing Accusingly at Sugar and Refined Grains," *Los Angeles Times*, December 20, 2010.
- 314 *made the case recently that the fructose found in fruit:* Richard J. Johnson, *The Fat Switch* (Mercola.com, 2012).
- 315 *said Ronald M. Krauss:* Ronald M. Krauss, interview with author, August 21, 2013.

- 315 British Medical Journal: Gary Taubes, “The Science of Obesity: What Do We Really Know About What Makes Us Fat? An Essay by Gary Taubes,” *British Medical Journal* 346 (2013), doi: 10.1136/bmj.f1050.
- 317 *more than a few major studies*: Michel de Lorgeril et al., “Mediterranean Alpha-Linolenic Acid-Rich Diet in Secondary Prevention of Coronary Heart Disease,” *Lancet* 343, no. 8911 (1994): 1454–1459; Jean-Pierre Després, “Bringing Jupiter Down to Earth,” *Lancet* 373, no. 9670 (2009): 1147–1148; J. C. LaRosa et al., “Intensive Lipid Lowering with Atorvastatin in Patients with Stable Coronary Disease,” *New England Journal of Medicine* 352 (2005): 1425–1435; K. K. Ray et al., “Statins and All-Cause Mortality in High-Risk Primary Prevention: A Meta-Analysis of 11 Randomized Controlled Trials Involving 65,229 Participants,” *Archives of Internal Medicine* 170, no. 12 (2010): 1027; Castelli et al., “HDL Cholesterol and Other Lipids in Coronary Heart Disease: The Cooperative Lipoprotein Phenotyping Study,” *Circulation* 55, no. 5 (1977): 771.
- 317 *the AHA journal* *Circulation*: Rodney A. Hayward and Harlan M. Krumholz, “Three Reasons to Abandon Low-Density Lipoprotein Targets: An Open Letter to the Adult Treatment Panel IV of the National Institute of Health,” *Circulation* 5 (2012): 2–5. See also Harlan M. Krumholz, “Editorial: Target Cardiovascular Risk Rather than Cholesterol Concentration,” *British Medical Journal* 347 (2013): doi:10.1136/bmj.f7110.
- 317 *“historical leftover”*: Allan Sniderman, interview with author, September 6, 2012.
- 318 *John W. Gofman found*: John W. Gofman et al., “The Role of Lipids and Lipoproteins in Atherosclerosis,” *Science* 111, no. 2877 (1950): 166–186.
- 318 *Krauss confirmed their existence*: Darlene M. Dreon et al., “A Very-Low-Fat Diet Is Not Associated with Improved Lipoprotein Profiles in Men with a Predominance of Large, Low-Density Lipoproteins,” *American Journal of Clinical Nutrition* 69, no. 3 (1999): 411–418; Ron M. Krauss and Darlene M. Dreon, “Low-Density-Lipoprotein Subclasses and Response to a Low-Fat Diet in Healthy Men,” *American Journal of Clinical Nutrition* 62, no. 2 (1995): 478S–487S.
- 318 *He found that . . . total and saturated fats*: Krauss and Dreon, “Low-Density-Lipoprotein Subclasses and Response to a Low-Fat Diet”; Dreon et al., “A Very-Low-Fat Diet Is Not Associated with Improved Lipoprotein Profiles”; Ronald M. Krauss, “Dietary and Genetic Probes of Atherogenic Dyslipidemia,” *Arteriosclerosis, Thrombosis, and Vascular Biology* 25, no. 11 (2005): 2265–2272; Ronald M. Krauss et al. “Separate Effects of Reduced Carbohydrate Intake and Weight Loss on Atherogenic Dyslipidemia,” *American Journal of Clinical Nutrition* 83, no. 5 (2006): 1025–1031.
- 319 *He understood that even after*: Krauss, interview with author, June 12, 2006.
- 319 *it had been successfully replicated*: Benoît Lamarche et al., “Small, Dense Low-Density Lipoprotein Particles as a Predictor of the Risk of Ischemic Heart Disease in Men,” *Circulation* 95, no. 1 (1997): 69–75.
- 319 *I asked Robert Eckel . . . I checked in with him*: Robert H. Eckel, interviews with author, May 1, 2006, and November 19, 2013.
- 319 *Penny Kris-Etherton . . . told me*: Penny Kris-Etherton, interview with author, June 7, 2007.
- 319 *Lichtenstein countered*: Krauss, interview; Eric B. Rimm, interview with author, January 7, 2008; Lichtenstein, interview.

- 320 *Krauss made the point*: Ronald M. Krauss et al., “AHA Dietary Guidelines Revision 2000: A Statement for Healthcare Professionals from the Nutrition Committee of the American Heart Association,” *Circulation* 102, no. 18 (2000): 2284–2299.
- 320 *“it was too complicated”*: Krauss, interview, August 20, 2012.
- 320 *Krauss was able to move*: Ibid.
- 320 *swung the AHA guidelines back in the other direction*: Alice H. Lichtenstein et al., “Diet and Lifestyle Recommendations Revision 2006: A Scientific Statement from the American Heart Association Nutrition Committee,” *Circulation* 114, no. 1 (2006): 82–96.
- 320 *she replied that*: Alice H. Lichtenstein, interview with author, September 7, 2007.
- 321 *their advice became even more draconian*: Robert H. Eckel et al., “2013 AHA/ACC Guideline on Lifestyle Management to Reduce Cardiovascular Risk: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines,” *Circulation* (2013), epub ahead of print, doi: 10.1161/01.cir.0000437740.48606.d1.
- 321 *DASH and OmniHeart*: Eva Obarzanek et al., “Effects on Blood Lipids of a Blood Pressure–Lowering Diet: The Dietary Approaches to Stop Hypertension (DASH) Trial,” *American Journal of Clinical Nutrition* 74 (2001): 80–89; Lawrence Appel et al., “Effects of Protein, Monounsaturated Fat, and Carbohydrate Intake on Blood Pressure and Serum Lipids: Results of the OmniHeart Randomized Trial,” *Journal of the American Medical Association* 294, no. 19 (2005): 2455–2464.
- 323 *“became disenchanted”*: Krauss, interview, August 20, 2012.
- 324 *as had others before him*: Smith and Pinckney, *Diet, Blood Cholesterol and Coronary Heart Disease*. Before Taubes’s book, this self-published compendium was the most important reference for doubters of the diet-heart hypothesis. See also Michael F. Oliver, “It Is More Important to Increase the Intake of Unsaturated Fats than to Decrease the Intake of Saturated Fats: Evidence from Clinical Trials Relating to Ischemic Heart Disease,” *American Journal of Clinical Nutrition* 66, no. 4, suppl. (1997): 980S–986S.
- 324 *“a long row to hoe”*: Krauss, email message to author, January 4, 2009.
- 324 *Krauss told me*: Krauss, email message to author, June 14, 2009.
- 324 *“agonizing series” . . . five “major permutations”*: Ibid.
- 324 *For the first paper*: Patty W. Siri-Tarino et al., “Saturated Fat, Carbohydrate, and Cardiovascular Disease,” *American Journal of Clinical Nutrition* 91.3 (2010): 502.
- 325 *In his editorial*: Jeremiah Stamler, “Diet-Heart: A Problematic Revisit,” *American Journal of Clinical Nutrition* 91, no. 3 (2010): 497–499.
- 325 *Dariush Mozaffarian, announced*: Dariush Mozaffarian, “Taking the Focus off of Saturated Fat,” presented as part of the “Great Fat Debate” at a conference and exposition of the Academy of Nutrition and Dietetics, Boston, Massachusetts, November 8, 2010 (available from the Academy as an audio recording).
- 326 *Americans have reduced their consumption*: Centers for Disease Control and Prevention, “Trends in Intake of Energy and Macronutrients, 1971–2000,” 80–82.
- 327 *total cholesterol levels . . . have fallen . . . “high” cholesterol*: National Cholesterol Education Program, “Program Description,” accessed October 29 2013, http://www.nhlbi.nih.gov/about/ncep/ncep_pd.htm.

- 327 *due to declines in LDL-cholesterol*: Nancy D. Ernst et al., “Consistency between US Dietary Fat Intake and Serum Total Cholesterol Concentrations: The National Health and Nutrition Examination Surveys,” *American Journal of Clinical Nutrition* 66, no. 4, suppl. (1997): 965S–972S.
- 327 *he predicted that if “mankind . . .”*: Edgar V. Allen, “Clinical Progress: Atherosclerosis. A Symposium,” *Circulation* 5, no. 1 (1952): 99.
- 327 *not clear that the actual occurrence of heart disease has declined*: Wayne D. Rosamond et al., “Trends in the Incidence of Myocardial Infarction and in Mortality Due to Coronary Heart Disease, 1987 to 1994,” *New England Journal of Medicine* 339, no. 13 (1998): 861–867; Hugh Tunstall-Pedoe et al., “Contribution of Trends in Survival and Coronary-Event Rates to Changes in Coronary Heart Disease Mortality: 10-Year Results from 37 WHO MONICA Project Populations. Monitoring Trends and Determinants in Cardiovascular Disease,” *Lancet* 353, no. 9164 (1999): 1547–1557.
- 327 *“very few” of whom “currently follow”*: Dietary Guidelines Advisory Committee, *Report of the Dietary Guidelines Advisory Committee*, 72.
- 327 *most recent set of AHA dietary guidelines*: Alice H. Lichtenstein et al., “Diet and Lifestyle Recommendations Revision 2006: A Scientific Statement from the American Heart Association Nutrition Committee,” *Circulation* 114, no. 1 (2006): 82–96.
- 328 *prohibitions against saturated fats remain strong*: Dietary Guidelines Advisory Committee, *Report of the Dietary Guidelines Advisory Committee*, 4 and 13, among others.
- 328 *“healthy diets are high in carbohydrates”*: Ibid., 311.
- 329 *6 percent per year*: Caroline Scott-Thomas, “Low-Fat Trend Continues to Grow Fat Replacer Sales,” *FoodNavigatorusa.com*, March 7, 2012, last accessed February 14, 2014, <http://www.foodnavigator-usa.com/Markets/Low-fat-trend-continues-to-grow-fat-replacer-sales-says-GIA>.

Conclusion

- 331 *“You may be making yourself miserable”*: Edward R. Pinckney and Cathey Pinckney, *The Cholesterol Controversy* (Los Angeles, Shelbourne Press, 1973), 3.
- 333 *expert panels . . . recently recommended*: Robert H. Eckel et al., “2013 AHA/ACC Guideline on Lifestyle Management to Reduce Cardiovascular Risk: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines,” *Circulation* (2013), doi: 10.1161/01.cir.0000437740.48606.d1.
- 335 *“genetics would point at nothing”*: David B. Goldstein, “Common Genetic Variation and Human Traits,” *New England Journal of Medicine* 360 no. 17 (2009): 1696–1698; David B. Goldstein, email message to author, November 26, 2013.

Bibliography

- Aaes-Jørgensen, E., J. P. Funch, P. F. Engel, and H. Dam. "The Role of Fat in the Diet of Rats." *British Journal of Nutrition* 10, no. 04 (1956): 317–324.
- "About the Foundation." <http://www.atkinsfoundation.org/about.asp>, last accessed October 11, 2013.
- Accurso, Anthony, Richard K. Bernstein, Annika Dahlqvist, et al. "Dietary Carbohydrate Restriction in Type 2 Diabetes Mellitus and Metabolic Syndrome: Time for a Critical Appraisal." *Nutrition & Metabolism* 5 (April 8, 2008): 9.
- Adams, Charles Darwin, trans. *The Genuine Works of Hippocrates*. New York: Dover, 1868.
- Adams, Ronald J., and Kenneth M. Jennings. "Media Advocacy: A Case Study of Philip Sokolof's Cholesterol Awareness Campaigns." *Journal of Consumer Affairs* 27, no. 1 (Summer 1993): 145–165.
- Ahrens, Edward H. Jr. "The Management of Hyperlipidemia: Whether, Rather than How." *Annals of Internal Medicine* 85, no. 1 (July 1976): 87–93.
- . "The Evidence Relating Six Dietary Factors to the Nation's Health. Introduction." *American Journal of Clinical Nutrition* 32, no. 12 (December 1979): 2627–2631.
- . "After 40 Years of Cholesterol-Watching." *Journal of Lipid Research* 25, no. 13 (December 15, 1984): 1442–1449.
- . "The Diet-Heart Question in 1985: Has It Really Been Settled?" *Lancet* 1, no. 8437 (May 11, 1985): 1085–1087.
- . "Carbohydrates, Plasma Triglycerides, and Coronary Heart Disease." *Nutrition Reviews* 44, no. 2 (February 1986): 60–64.
- Ahrens, Edward H. Jr., David H. Blankenhorn, and Theodore T. Tsaltas. "Effect on Human Serum Lipids of Substituting Plant for Animal Fat in Diet." *Proceedings for the Society of Experimental Biology and Medicine* 86, no. 4 (August–September 1954): 872–878.
- Ahrens, Edward H. Jr., Jules Hirsch, William Insull Jr., Theodore T. Tsaltas, Rolf Blomstrand, and Malcolm L. Peterson. "Dietary Control of Serum Lipids in Relation to Atherosclerosis." *Journal of the American Medical Association* 164, no. 17 (August 24, 1957): 1905–1911.

- Ahrens, Edward H. Jr., Jules Hirsch, Kurt Oette, John W. Farquhar, and Yechezkiel Stein. "Carbohydrate-Induced and Fat-Induced Lipemia." *Transactions of the Association of American Physicians* 74 (1961): 134–146.
- Ahrens, Edward H. Jr., William Insull Jr., Rolf Blomstrand, Jules Hirsch, Theodore T. Tsaltas, and Malcolm L. Peterson. "The Influence of Dietary Fats on Serum-Lipid Levels in Man." *Lancet* 272, no. 6976 (May 11, 1957): 943–953.
- Akiya, Toshimi, Chuji Araki, and Kiyoko Igarashi. "Novel Methods of Evaluation Deterioration and Nutritive Value of Oxidized Oil." *Lipids* 8, no. 6 (June 1973): 348–352.
- Alberti-Fidanza, Adalberto. "Mediterranean Meal Patterns." *Bibliotheca Nutritio et Dieta* 45 (1990): 59–71.
- Albrink, Margaret J. "Triglycerides, Lipoproteins, and Coronary Artery Disease." *Archives of Internal Medicine* 109, no. 3 (March 1962): 345–359.
- . "The Significance of Serum Triglycerides." *Journal of the American Dietetic Association* 42 (January 1963): 29–31.
- Aldana, Steven G., Roger Greenlaw, Audrey Salberg, Ray M. Merrill, Ron Hager, Rick B. Jorgensen. "The Effects of an Intensive Lifestyle Modification Program on Carotid Artery Intima-Media Thickness: A Randomized Trial." *American Journal of Health Promotion* 21, no. 6 (July–August 2007): 510–516.
- Allbaugh, Leland Girard. *Crete: A Case Study of an Underdeveloped Area*. Princeton, NJ: Princeton University Press, 1953.
- Allen, Edgar V., Louis N. Katz, Ancel Keys, and John W. Gofman, "Atherosclerosis: A Symposium," *Circulation* 5, no. 1 (January 1952): 98–134.
- Al-Marzouki, Sanaa, Stephen Evans, Tom Marshall, and Ian Roberts. "Are These Data Real? Statistical Methods for the Detection of Data Fabrication in Clinical Trials." *British Medical Journal* 331, no. 7511 (July 30, 2005): 267–270.
- Alonso, Alvaro, and Miguel Ángel Martínez-González. "Olive Oil Consumption and Reduced Incidence of Hypertension: The SUN Study." *Lipids* 39, no. 12 (December 2004): 1233–1238.
- Alonso, Alvaro, Valentina Ruiz-Gutierrez, and Miguel Ángel Martínez-González. "Monounsaturated Fatty Acids, Olive Oil and Blood Pressure: Epidemiological, Clinical and Experimental Evidence." *Public Health Nutrition* 9, no. 2 (April 2005): 251–257.
- American Academy of Pediatrics, Committee on Nutrition. "Prudent Life-style for Children: Dietary Fat and Cholesterol." *Pediatrics* 78, no. 3 (September 1, 1986): 521–525.
- . "Cholesterol in Childhood." *Pediatrics* 101, no. 1, part 1 (January 1998): 141–147.
- American Diabetes Association. "Position Statement. Nutrition Recommendations and Interventions for Diabetes." *Diabetes Care* 31, suppl. 1 (January 2008): S61–S78.
- American Heart Association. *An Eating Plan for Healthy Americans: Our American Heart Association Diet*. Dallas: American Heart Association, 1995.
- . Committee on Nutrition. "Diet and Heart Disease." New York: American Heart Association, 1968.
- . "Diet and Coronary Heart Disease." New York: American Heart Association, 1973.
- . "Diet and Coronary Heart Disease." New York: American Heart Association, 1978.
- Anderson, Joseph T., Francisco Grande, and Ancel Keys. "Hydrogenated Fats in the Diet and Lipids in the Serum of Man." *Journal of Nutrition* 75 (1961): 388–394.

- Anderson, Joseph T., Ancel Keys, and Francisco Grande. "The Effects of Different Food Fats on Serum Cholesterol Concentration in Man." *Journal of Nutrition* 62, no. 3 (July 10, 1957): 421–424.
- Anderson, Keaven M., William P. Castelli, and Daniel Levy. "Cholesterol and Mortality: 30 Years of Follow-up from the Framingham Study." *Journal of the American Medical Association* 257, no. 16 (April 24, 1987): 2176–2180.
- Anderson, Sue Ann. "Guidelines for Use of Dietary Intake Data." *Journal of the American Dietetic Association* 88, no. 10 (October 1988): 1258–1260.
- Andrews, John S., Wendell H. Griffith, James F. Mead, and Robert A. Stein. "Toxicity of Air-Oxidized Soybean Oil." *Journal of Nutrition* 70, no. 2 (February 1, 1960): 199–210.
- Anitschkow, Nikolai N. and S. Chalатов, "Ueber Experimentelle Cholester-insteatose und ihre Bedeutung für die Entstehung Einiger Pathologischer Prozesse." *Zentralblatt für Allgemeine Pathologie und Pathologische Anatomie* 24 (1913): 1–9.
- Anon. "The Fat of the Land." *Time* 67 no. 3 (January 13, 1961): 48–52.
- . "Beauty: Vogue's Take It Off, Keep It Off Super Diet . . . Devised with the Guidance of Dr. Robert Atkins." *Vogue* 155, no. 10 (1970): 184–185.
- . "A Few Kind Words for Cholesterol." *Time*, June 9, 1980.
- . "Focus." *Journal of the American Oil Chemists' Society* 61, no. 9 (1984): 1434.
- . "Sorry, It's True: Cholesterol Really Is a Killer." *Time*, January 23, 1984.
- . "New Findings on Palm Oil." *Nutrition Reviews* 45, no. 9 (1987): 205–207.
- . "Tropical Fats Labeling: Malaysians Counterattack ASA Drive." *Journal of the American Oil Chemists' Society* 64, no. 12 (December 1987): 1596–1598.
- . "FASEB Nutrition Study Using 'Flawed Data,' Researcher Charges." *Food Chemical News* (January 25, 1988): 52–54.
- . "Congress Hears Cholesterol Debate." Associated Press, December 9, 1989.
- . "The Battle of Pork Rind Hill," *Newsweek*, March 5, 2000.
- . "Death of a Diet Doctor." Snopes.com, last modified February 11, 2004, <http://www.snopes.com/medical/doctor/atkins.asp>.
- Antar, Mohamed A., Margaret A. Ohlson, and Robert E. Hodges. "Perspectives in Nutrition: Changes in Retail Market Food Supplies in the United States in the Last Seventy Years in Relation to the Incidence of Coronary Heart Disease, with Special Reference to Dietary Carbohydrates and Essential Fatty Acids." *American Journal of Clinical Nutrition* 14 (March 1964): 169–178.
- Appel, Lawrence J., Frank M. Sacks, Vincent J. Carey, et al. "Effects of Protein, Monounsaturated Fat, and Carbohydrate Intake on Blood Pressure and Serum Lipids: Results of the OmniHeart Randomized Trial." *Journal of the American Medical Association* 294, no. 19 (November 16, 2005): 2455–2464.
- Applewhite, Thomas H. " 'Statistical Correlations' Relating Trans-Fats to Cancer: A Commentary." *Federation Proceedings* 38, no. 11 (1979): 2435.
- . "Nutritional Effects of Isomeric Fats: Facts and Fallacies." In *Dietary Fats and Health*. Edited by Edward George Perkins and W. J. Visek. Chicago: American Oil Chemists' Society (1983).
- . "Trans-Isomers, Serum Lipids and Cardiovascular Disease: Another Point of View." *Nutrition Reviews* 51, no. 11 (November 1993): 344–345.

- Aravanis, Christos. "The Classic Risk Factors for Coronary Heart Disease: Experience in Europe." *Preventive Medicine* 12, no. 1 (January 1983): 16–19.
- Aro, Antti, Matti Jauhiainen, Raija Partanen, Irma Salminen, and Marja Mutanen. "Stearic Acid, Trans Fatty Acids, and Dairy Fat: Effects on Serum and Lipoprotein Lipids, Apolipoproteins, Lipoprotein(a), and Lipid Transfer Proteins in Healthy Subjects." *American Journal of Clinical Nutrition* 65, no. 5 (May 1997): 1419–1426.
- Aro, Antti, I. Salminen, J. K. Huttunen, et al. "Adipose Tissue Isomeric *Trans* Fatty Acids and Risk of Myocardial Infarction in Nine Countries: the EURAMIC Study." *Lancet* 345, no. 8945 (February 4, 1995): 273–278.
- Ascherio, Alberto, Martijn B. Katan, Peter L. Zock, Meir J. Stampfer, and Walter C. Willett. "Trans Fatty Acids and Coronary Heart Disease." *New England Journal of Medicine* 340, no. 25 (June 24, 1999): 1994–1998.
- Association of Schools of Public Health. "Health Revolutionary: The Life and Work of Ancel Keys." Public Health Leadership Film. Last accessed February 14, 2014. <http://www.asph.org/document.cfm?page=793>.
- Astrup, Arne, Jørn Dyerberg, Peter Elwood, et al. "The Role of Reducing Intakes of Saturated Fat in the Prevention of Cardiovascular Disease: Where Does the Evidence Stand in 2010?" *American Journal of Clinical Nutrition* 93, no. 4 (April 2011): 684–688.
- Astrup, Arne, Peter Marckmann, and John Blundell. "Oiling of Health Messages in Marketing of Food." *The Lancet* 356, no. 9244 (November 25, 2000): 1786.
- Atkins, Robert C. *Dr. Atkins' Diet Revolution: The High-Calorie Way to Stay Thin Forever*. Philadelphia: David McKay Co., 1972.
- . Interview with Larry King. *Larry King Live*. CNN, January 6, 2003.
- Austin, Peter C., Muhammad M. Mamdani, David N. Juurlink, and Janet E. Hux. "Testing Multiple Statistical Hypotheses Resulted in Spurious Associations: A Study of Astrological Signs and Health." *Journal of Clinical Epidemiology* 59, no. 9 (September 2006): 964–969.
- Bach, Anna, Lluís Serra-Majem, Josep L. Carrasco, et al. "The Use of Indexes Evaluating the Adherence to the Mediterranean Diet in Epidemiological Studies: A Review." *Public Health Nutrition* 9, no. 1A (February 2006): 132–146.
- Bacon, Francis. *Novum Organum Scientiarum*, England, 1620, Book 1: XXXIV.
- Bailar, John C. "Dietary Fat and Cancer Trends—A Further Critique." *Federation Proceedings* 38, no. 11 (October 1979): 2435–2436.
- Ball, Richard A., and J. Robert Lilly. "The Menace of Margarine: The Rise and Fall of a Social Problem." *Social Problems* 29, no. 5 (June 1982): 488–498.
- Banting, William. *Letter on Corpulence. Addressed to the Public*. London, 1863. Reprinted: New York: Cosimo Classics, 2005.
- Barbour, Andrew D. "The Deposition and Utilization of Hydrogenation Isooleic Acid in the Animal Body." *The Journal of Biological Chemistry* 101, no. 1 (June 1933): 63–72.
- Barker, J. Ellis. *Cancer*. London: John Murray, 1924.
- Bauer, Bob. Letter Responding to the Health Claim Petition (Docket No. 2003Q-0559). Office of Nutritional Products, Labeling and Dietary Supplements, US Food and Drug Administration, November 1, 2004.
- Baum, Seth J., Penny M. Kris-Etherton, Walter C. Willett, et al. "Fatty Acids in Cardiovascular Health and Disease: A Comprehensive Update." *Journal of Clinical Lipidology* 6, no. 3 (May 2012): 216–234.

- Beaglehole, Robert, Mary A. Foulkes, Ian A. M. Prior, and Elaine F. Eyles. "Cholesterol and Mortality in New Zealand Maoris." *British Medical Journal* 280, no. 6210 (February 2, 1980): 285–287.
- Beauchamp, Gary K., Russell S. J. Keast, Diane Morel, et al. "Phytochemistry: Ibuprofen-like Activity in Extra-Virgin Olive Oil." *Nature* 437, no. 7055 (September 1, 2005): 45–46.
- Beckles, G. L., C. F. Chou, Centers for Disease Control and Prevention, "Diabetes—United States, 2006 and 2010," *Morbidity and Mortality Weekly Report* 62, suppl. 3 (2012): 99–104.
- Bekelman, Justin E., Yan Li, and Cary P. Gross. "Scope and Impact of Financial Conflicts of Interest in Biomedical Research; A Systematic Review." *Journal of the American Medical Association* 289, no. 4 (January 22–29, 2003): 454–465.
- Bendsen, N. T., R. Christensen, E. M. Bartels, and A. Astrup. "Consumption of Industrial and Ruminant Trans Fatty Acids and Risk of Coronary Heart Disease: A Systematic Review and Meta-Analysis of Cohort Studies." *European Journal of Clinical Nutrition* 65, no. 7 (July 2011): 773–783.
- Beresford, Shirley A. A., Karen C. Johnson, et al. "Low-Fat Dietary Pattern and Risk of Colorectal Cancer: The Women's Health Initiative Randomized Controlled Dietary Modification Trial." *Journal of the American Medical Association* 295, no. 6 (February 8, 2006): 643–654.
- Bier, Dennis M., J. T. Brosnan, J. P. Flatt, et al. "Report of the IDECG Working Group on Lower and Upper Limits of Carbohydrate and Fat Intake." *European Journal of Clinical Nutrition* 53, no. 1 suppl. (April 1999): S177–S178.
- Bier, Dennis M., Ronald M. Lauer, and Olli Simell. "Summary." *The American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1410S–1413S.
- Bierenbaum, Marvin L., Donald P. Green, Alvin Florin, Alan Fleischman, and Anne B. Caldwell. "Modified-Fat Dietary Management of the Young Male with Coronary Disease," *Journal of the American Medical Association* 202, no. 13 (1967): 59–63.
- Biesalski, Hans Konrad. "Meat and Cancer: Meat as a Component of a Healthy Diet." *European Journal of Clinical Nutrition* 56, suppl. 1 (March 2002): S2–S11.
- Bingham, Sheila A. "Limitations of the Various Methods for Collecting Dietary Intake Data." *Annals of Nutrition and Metabolism* 35, no. 3 (1991): 117–127.
- Biss, Kurt, Kang-Jey Ho, Belma Mikkelsen, Lena Lewis, and C. Bruce Taylor. "Some Unique Biologic Characteristics of the Masai of East Africa." *New England Journal of Medicine* 284, no. 13 (April 1971): 694–699.
- Bistrrian, Bruce R., George L. Blackburn, Jean-Pierre Flatt, Jack Sizer, Nevin S. Scrimshaw, and Mindy Sherman. "Nitrogen Metabolism and Insulin Requirements in Obese Diabetic Adults on a Protein-Sparing Modified Fast." *Diabetes* 25, no. 6 (June 1976): 494–504.
- Bittman, Mark. "No Meat, No Dairy, No Problem." *New York Times Sunday Magazine*, January 1, 2012.
- Blackburn, G. L. "Mechanisms of Nitrogen Sparing with Severe Calorie Restricted Diets." *International Journal of Obesity* 5, no. 3 (1981): 215–216.
- Blackburn, Henry. "The Low Risk Coronary Male." *American Journal of Cardiology* 58, no. 1 (July 1986): 161.
- . "Ancel Keys Lecture: The Three Beauties: Bench, Clinical, and Population Research." *Circulation* 86, no. 4 (October 1992): 1323–1331.

- Blackburn, Henry, and Darwin Labarthe. "Stories for the Evolution of Guidelines for Casual Interference in Epidemiologic Associations: 1953–1965." *American Journal of Epidemiology* 176, no. 12 (December 5, 2012): 1071–1077.
- Blakeslee, Alton, and Jeremiah Stamler. *Your Heart Has Nine Lives: Nine Steps to Heart Health*. New York: Pocket Books, 1966.
- Blasbalg, Tanya L., Joseph R. Hibbeln, Christopher E. Ramsden, Sharon F. Majchrzak, and Robert R. Rawlings. "Changes in Consumption of Omega-3 and Omega-6 Fatty Acids in the United States During the 20th Century." *American Journal of Clinical Nutrition* 93, no. 5 (May 2011): 950–962.
- Blondheim, S. H., T. Horne, R. Davidovich, J. Kapitulnik, S. Segal, and N. A. Kaufmann. "Unsaturated Fatty Acids in Adipose Tissue of Israeli Jews." *Israel Journal of Medical Sciences* 12, no. 7 (July 1976): 658–661.
- Blume, Elaine. "The Truth About Trans: Hydrogenated Oils Aren't Guilty as Charged." *Center for Science in the Public Interest: Nutrition Action Healthletter* 15, no. 2 (March 1, 1988): 8–10.
- Bogani, Paola, Claudio Galli, Marco Villa, and Francesco Visioli. "Postprandial Anti-inflammatory and Antioxidant Effects of Extra Virgin Olive Oil." *Atherosclerosis* 190, no. 1 (January 2007): 181–186.
- Boniface, D. B., and M. E. Tefft, "Dietary Fats and 16-year Coronary Heart Disease Mortality in a Cohort of Men and Women in Great Britain." *European Journal of Clinical Nutrition* 56, no. 8 (August 2002): 786–792.
- Bostock, John, and H. T. Riley. *The Natural History of Pliny*. London: Taylor and Francis, 1855.
- Böttiger, Lars-Erik, and Lars A. Carlson. "Serum Glucoproteins in Men with Myocardial Infarction." *Journal of Atherosclerosis Research* 1, no. 3 (May 6, 1961): 184–188.
- Breslow, Jan L. "Why You Should Support the American Heart Association!" *Circulation* 94, no. 11 (December 1, 1996): 3016–3022.
- Broad, William James. "NIH Deals Gingerly with Diet-Disease Link." *Science* 204, no. 4398 (June 15, 1979): 1175–1178.
- . "Academy Says Curb on Cholesterol Not Needed." *Science* 208, no. 4450 (June 20, 1980): 1354–1355.
- Brobeck, John R. "Mechanisms in the Development of Obesity in Animals with Hypothalamic Lesions." *Physiological Reviews* 26, no. 4 (October 1, 1946): 541–559.
- Brody, Jane E. *Jane Brody's Good Food Book: Living the High Carbohydrate Way*. New York: W. W. Norton, 1985.
- Brown, Michael S., and Joseph L. Goldstein. "How LDL Receptors Influence Cholesterol and Atherosclerosis." *Scientific American* 251, no. 5 (November 1984): 58–66.
- Byers, Tim. "Hardened Fats, Hardened Arteries?" *New England Journal of Medicine* 337, no. 21 (November 20, 1997): 1544–1545.
- Caballero, Benjamin, Theresa Clay, Sally M. Davis, et al. "Pathways: A School-Based, Randomized Controlled Trial for the Prevention of Obesity in American Indian Schoolchildren." *American Journal of Clinical Nutrition* 78, no. 5 (November 2003): 1030–1038.
- Campbell, T. Colin, and Chen Junshi. "Diet and Chronic Degenerative Diseases: Perspectives from China." *American Journal of Clinical Nutrition* 59, no. 5 suppl. (May 1994): 1153S–1161S.
- Campbell, T. Colin, Banoo Parpia, and Junshi Chen. "Diet, Lifestyle, and the Etiology of Coronary Artery Disease: The Cornell China Study." *American Journal of Cardiology* 82, no. 10B (November 26, 1998): 18T–21T.

- Canadian Pediatric Society and Health Canada, Joint Working Group. *Nutrition Recommendations Update: Dietary Fat and Children*. Ottawa, Ontario: Health Canada, 1993.
- Cannon, Geoffrey. *Food and Health: The Experts Agree*. London: Consumers' Association, 1992.
- Capewell, Simon, and Martin O'Flaherty. "What Explains Declining Coronary Mortality? Lessons and Warnings." *Heart* 94, no. 9 (September 2008): 1105–1108.
- Carlson, Lars A., Lars E. Böttiger, and P. E. Åhdfeldt. "Risk Factors for Myocardial Infarction in the Stockholm Prospective Study." *Acta Medica Scandinavica* 206, no. 5 (1979): 351–360.
- Cassady, Bridget A., Nicole L. Charboneau, Emily E. Brys, Kristin A. Crouse, Donald C. Beitz, and Ted Wilson. "Effects of Low Carbohydrate Diets High in Red Meats or Poultry, Fish and Shellfish on Plasma Lipids and Weight Loss." *Nutrition & Metabolism* 4, no. 23 (October 31, 2007). doi:10.1186/1743-7075-4-23.
- Castelli, William P. "Concerning the Possibility of a Nut . . ." *Archives of Internal Medicine* 152, no. 7 (July 1992): 1371–1372.
- Castelli, William P., Joseph T. Doyle, Tavia Gordon, et al. "HDL Cholesterol and Other Lipids in Coronary Heart Disease: The Cooperative Lipoprotein Phenotyping Study." *Circulation* 55, no. 5 (May 1977): 767–772.
- Center for Food Safety and Applied Nutrition, US Food and Drug Administration. "FDA Issues Draft Guidance for Industry on How to Reduce Acrylamide in Certain Foods." *CFSAN Constituent Update*, November 14, 2013, <http://www.fda.gov/Food/NewsEvents/ConstituentUpdates/ucm374601.htm>.
- Center for Science in the Public Interest. *Saturated Fat Attack*. Washington, DC: Center for Science in the Public Interest, 1988.
- . "Building a Healthier America, 35th Anniversary Report." Washington, DC: Center for Science in the Public Interest, 2006.
- Centers for Disease Control and Prevention. "Trends in Intake of Energy and Macronutrients in the United States, 1971–2000." *Morbidity and Mortality Weekly Report* 53, no. 4 (February 6, 2004): 80–82.
- . National Health Examination Survey, 1960–1962. Available at <http://www.cdc.gov/nchs/nhanes.htm>.
- Central Committee for Medical and Community Program, American Heart Association. "Dietary Fat and Its Relation to Heart Attacks and Strokes: Report by the Central Committee for Medical and Community Program of the American Heart Association." *Journal of the American Medical Association* 175 (February 4, 1961): 389–391.
- Chamberlin, Thomas C. "The Method of Multiple Working Hypotheses." (Repr. *Journal of Geology*, 1897.) *Science* 148, no. 3671 (May 7, 1965): 754–759.
- Charles, Dan. "The Making of Meat Eating America." Morning Edition, National Public Radio, June 26, 2012.
- Chlebowski, Rowan T., George L. Blackburn, Cynthia A. Thomson, et al. "Dietary Fat Reduction and Breast Cancer Outcome: Interim Efficacy Results from the Women's Intervention Nutrition Study." *Journal of the National Cancer Institute* 98, no. 24 (December 20, 2006): 1767–1776.
- Christakis, George, Seymour H. Rinzler, Morton Archer, and Arthur Kraus. "Effect of the Anti-Coronary Club Program on Coronary Heart Disease: Risk-Factor Status." *Journal of the American Medical Association* 198, no. 6 (November 7, 1966): 597–604.

- Christakis, George, Seymour H. Rinzler, Morton Archer, and Ethel Maslansky. "Summary of the Research Activities of the Anti-Coronary Club." *Public Health Reports* 81, no. 1 (January 1966): 64–70.
- Clarke, William R., Helmut G. Schrott, Paul E. Leaverton, William E. Connor, and Ronald M. Lauer. "Tracking of Blood Lipids and Blood Pressures in School Age Children: The Muscatine Study." *Circulation* 58, no. 4 (October 1978): 626–634.
- Claxson, Andrew W. D., Geoffrey E. Hawkes, David P. Richardson, et al. "Generation of Lipid Peroxidation Products in Culinary Oils and Fats During Episodes of Thermal Stressing: A High Field 1H NMR Study." *FEBS Letters* 355, no. 1 (November 21, 1994): 81–90.
- Clayton, Paul, and Judith Rowbotham. "How the Mid-Victorian Worked, Ate and Died." *International Journal of Environmental Research and Public Health* 6, no. 3 (March 2009): 1235–1253.
- Cleave, Thomas L., and George D. Campbell. *Diabetes, Coronary Thrombosis, and the Saccharine Disease*. Bristol: John Wright & Sons, 1966.
- Cobe, P., J. M. Lang, T. H. Strenk, and D. Tanyeri. "Best Do-Over That We'll All Be Doing Soon." *Restaurant Business*, April 6, 2007.
- Coggon, D., B. Pannett, C. Osmond, and E. D. Acheson. "A Survey of Cancer and Occupation in Young and Middle Aged Men. I. Cancers of the Respiratory Tract." *British Journal of Industrial Medicine* 43, no. 5 (May 1986): 332–338.
- Combined Staff Clinic. "Obesity." *American Journal of Medicine* 19, no. 1 (July 1955): 115–125.
- Committee of Principal Investigators. "A Co-operative Trial in the Primary Prevention of Ischaemic Heart Disease Using Clofibrate: A Report from the Committee of Principal Investigators." *British Heart Journal* 40 (October 1978): 1069–1118.
- Conklin, Daniel J., Oleg A. Barski, Jean-Francois Lesgards, et al. "Acrolein Consumption Induces Systemic Dyslipidemia and Lipoprotein Modification." *Toxicology and Applied Pharmacology* 243, no. 1 (February 15, 2010): 1–12.
- Conklin, Daniel J., Russell A. Prough, Peter Juvan, et al. "Acrolein-Induced Dyslipidemia and Acute-Phase Response Are Independent of HMG-CoA Reductase." *Molecular Nutrition and Food Research* 55, no. 9 (September 2011): 1411–1422.
- Cooper, Thomas. *Some Information Respecting America*. London: J. Johnson, 1794.
- . *The Chainbearer*. Oxford: Oxford University, 1845.
- Cordain, Loren, Janette Brand Miller, S. Boyd Eaton, Neil Mann, Susanne H. Holt, and John D. Speth. "Plant-animal Subsistence Ratios and Macronutrient Energy Estimations in Worldwide Hunter-gatherer Diets." *American Journal of Clinical Nutrition* 71, no. 3 (March 2000): 682–692.
- Cowley, Geoffrey. "Healer of Hearts: Dean Ornish's Low-Tech Methods Could Transform American Medicine. But the Doctor Is Still Striving to Transform Himself." *Newsweek*, March 16, 1998.
- Crampton, E. W., R. H. Common, E. T. Pritchard, and Florence A. Farmer. "Studies to Determine the Nature of the Damage to the Nutritive Value of Some Vegetable Oils from Heat Treatment: IV. Ethyl Esters of Heat Polymerized Linseed, Soybean and Sunflower Seed Oils." *Journal of Nutrition* 60, no. 1 (September 10, 1956): 13–24.
- Crawford, Michael A. "Fatty-Acid Ratios in Free-Living and Domestic Animals." *Lancet* 291, no. 7556 (June 22, 1968): 1329–1333.

- Csallany, A. Saari, I. Han, D.W. Shoeman, and C. Chen. "4-Hydroxynonenal (HNE), a Toxic Aldehyde in French Fries from Fast Food Restaurants." Poster presentation at the HNE Symposium of the 16th Bi-Annual Conference of the Free Radical Society and HNE Symposium, London, September 1–9, 2012.
- Cummings, Richard Osborn. *The American and His Food: A History of Food Habits in the United States*. Chicago: The University of Chicago Press, 1940.
- Damas, David. *Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic*. Quebec: McGill-Queen's Press, 2002.
- Damasceno, N. R., A. Pérez-Heras, M. Serra, et al. "Crossover Study of Diets Enriched with Virgin Olive Oil, Walnuts or Almonds. Effects on Lipids and Other Cardiovascular Risk Markers." *Nutrition Metabolism Cardiovascular Disease* 21, no. 1 suppl. (2011): 14S–20S.
- Daniel, Carrie R., Amanda J. Cross, Corinna Koebnick, and Rashmi Sinha. "Trends in Meat Consumption in the USA." *Public Health Nutrition* 14, no. 4 (2011): 575–583.
- Davidson, Alan. "Lard" in *The Penguin Companion to Food*. New York: Penguin Books, 2002, 530–531.
- Day, Ivan. *Cooking in Europe 1650–1850*. Westport, CT: Greenwood Press, 2009.
- Day, José, Malcolm Carruthers, Alan Bailey, and David Robinson. "Anthropometric, Physiological and Biochemical Differences Between Urban and Rural Masai." *Atherosclerosis* 23, no. 2 (1976): 357–361.
- Dayton, Seymour, and Morton Lee Pearce. "Diet and Atherosclerosis." *Lancet* 295, no. 7644 (February 28, 1970): 473–474.
- Dayton, Seymour, Morton Lee Pearce, Sam Hashimoto, Wilfrid J. Dixon, and Uwamie Tomiyasu. "A Controlled Clinical Trial of a Diet High in Unsaturated Fat in Preventing Complications of Atherosclerosis." *Circulation* 40, no. 1, suppl. 2 (1969): II-1–II-63.
- Decker, Walter J., and Walter Mertz. "Effects of Dietary Elaidic Acid on Membrane Function in Rat Mitochondria and Erythrocytes." *Journal of Nutrition* 91, no. 3 (March 1967): 324–330.
- DeHaven, Joseph, Robert Sherwin, Rosa Hendler, and Philip Felig. "Nitrogen and Sodium Balance and Sympathetic-Nervous-System Activity in Obese Subjects Treated With a Low-Calorie Protein or Mixed Diet." *New England Journal of Medicine* 302, no. 9 (February 28, 1980): 477–482.
- Després, Jean-Pierre. "Bringing JUPITER Down to Earth." *Lancet* 373, no. 9670 (April 4, 2009): 1147–1148.
- Deuel, Harry J. Jr. "The Butter-Margarine Controversy." *Science* 103, no. 2668 (February 15, 1946): 183–187.
- Deuel, Harry J. Jr., Samuel M. Greenberg, Evelyn E. Savage, and Lucien A. Bavetta. "Studies on the Comparative Nutritive Value of Fats: XIII. Growth and Reproduction Over 25 Generations on Sherman Diet B Where Butterfat was Replaced by Margarine Fat, Including a Study of Calcium Metabolism." *Journal of Nutrition* 42, no. 2 (1950): 239–255.
- Deuel, Harry J. Jr., Eli Movitt, and Lois F. Hallman. "Studies of the Comparative Nutritive Value of Fats: IV. The Negative Effect of Different Fats on Fertility and Lactation in the Rat." *Journal of Nutrition* 27, no. 6 (June 1944): 509–513.
- Deuel, Harry J. Jr., Eli Movitt, Lois F. Hallman, Fred Mattson, and Evelyn Brown. "Studies of the Comparative Nutritive Value of Fats: I. Growth Rate and Efficiency of Conversion of Various Diets to Tissue." *Journal of Nutrition* 27, no. 1 (January 1944): 107–121.

- Dietary Guidelines Advisory Committee. Prepared for the Agricultural Research Service, US Department of Agriculture and US Department of Health and Human Services. *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. To the Secretary of Agriculture and the Secretary of Health and Human Services.* Washington, DC: US Government Printing Office, June 15, 2010.
- DISC Collaborative Research Group. "Dietary Intervention Study in Children (DISC) with Elevated Low Density Lipoprotein Cholesterol: Design and Baseline Characteristics." *Annals of Epidemiology* 3, no. 4 (July 1993): 393–402.
- Doll, R., R. Peto, K. Wheatley, R. Gray, and I. Sutherland. "Mortality in Relation to Smoking: 40 Years' Observations on Male British Doctors." *British Medical Journal* 309, no. 6959 (October 8, 1994): 901–911.
- Donaldson, Blake F. *Strong Medicine*. New York: Cassell, 1963.
- Dreon, Darlene M., Harriett A. Fernstrom, Paul T. Williams, and Ronald M. Krauss. "A Very-Low-Fat Diet Is Not Associated with Improved Lipoprotein Profiles in Men with a Prevalence of Large, Low-Density Lipoproteins." *American Journal of Clinical Nutrition* 69, no. 3 (March 1999): 411–418.
- Drewnowski, Adam. "The Cost of U.S. Foods as Related to Their Nutritive Value." *American Journal of Clinical Nutrition* 92, no. 5 (Nov, 2010): 1181–1188.
- Dupré, Ruth. "‘If It’s Yellow, It Must be Butter’: Margarine Regulation in North America Since 1886." *Journal of Economic History* 59, no. 2 (June 1999): 353–371.
- Duthie, Susan J. "Soybean Growers Move to Label Palm Oil as Unhealthy, Bringing Rivalry to a Boil." *Wall Street Journal*, August 31, 1987.
- Eckel, Robert H., J. M. Jakicic, V. S. Hubbard, et al. "2013 AHA/ACC Guideline on Lifestyle Management to Reduce Cardiovascular Risk: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines." *Circulation*, (2013), doi:10.1161/01.cir.0000437740.48606.d1.
- Editors. "Coronary Heart Disease and Carbohydrate Metabolism." *Journal of the American Medical Association* 201, no. 13 (September 25, 1967): 164.
- . "Diet and Atherosclerosis." *Lancet* 2, no. 7627 (November 1, 1969): 939–940.
- . "Can I Avoid a Heart Attack?" *Lancet* 303, no. 7858 (April 6, 1974): 605–607.
- . "Trans Fatty Acids Dispute Rages in Letters to FASEB." *Food Chemical News* (May 30, 1988): 6–10.
- . "Expression of Concern." *British Medical Journal* 331, no. 7511 (July 30, 2005): 266.
- Enig, Mary G. *Trans Fatty Acids in the Food Supply: A Comprehensive Report Covering 60 Years of Research*, 2nd Edition. Silver Spring, MD: Enig Associates, 1995.
- Enig, Mary G., S. Atal, M. Keeney, and J. Sampugna. "Isomeric Trans Fatty Acids in the U.S. Diet." *Journal of the American College of Nutrition* 9, no. 5 (October 1990): 471–486.
- Enig, Mary G., R. Munn, and M. Keeney, "Dietary Fat and Cancer Trends—A Critique." *Federation Proceedings* 37, no. 9 (July 1978): 2215–2220.
- Ernst, Nancy D., C. T. Sempos, R. R. Briefel, and M. B. Clark. "Consistency Between US Dietary Fat Intake and Serum Total Cholesterol Concentrations: The National Health and Nutrition Examination Surveys." *American Journal of Clinical Nutrition* 66, no. 4 suppl. (October 1997): 965S–972S.

- Esposito, Katherine, Raffaele Marfella, Miryam Ciotola, et al. "Effect of a Mediterranean-Style Diet on Endothelial Dysfunction and Markers of Vascular Inflammation in the Metabolic Syndrome: A Randomized Trial." *Journal of the American Medical Association* 292, no. 12 (September 22, 2004): 1440–1446.
- Esterbauer, Hermann. "Cytotoxicity and Genotoxicity of Lipid-Oxidation Products." *American Journal of Clinical Nutrition* 57, no. 5 suppl. (May 1993): 779S–786S.
- Esterbauer, Hermann, K. H. Cheeseman, M. U. Dianzani, G. Poli, and T. F. Slater. "Separation and Characterization of the Aldehydic Products of Lipid Peroxidation Stimulated by ADP-Fe²⁺ in Rat Liver Microsomes." *Biochemical Journal* 208, no. 1 (October 15, 1982): 129–140.
- Esterbauer, Hermann, Günther Jürgens, Oswald Quehenberger, and Ernst Koller. "Autooxidation of Human Low Density Lipoprotein: Loss of Polyunsaturated Fatty Acids and Vitamin E and Generation of Aldehydes." *Journal of Lipid Research* 28, no. 5 (May 1987): 495–509.
- Esterbauer, Hermann, Rudolf Jörg Schaur, and Helmward Zollner. "Chemistry and Biochemistry of 4-Hydroxynonenal, Malonaldehyde and Related Aldehydes." *Free Radical Biology & Medicine* 11, no. 1 (1991): 81–128.
- Estruch, Ramón, Emilio Ros, Jordi Salas-Salvadó, et al. "Primary Prevention of Cardiovascular Disease with a Mediterranean Diet." *New England Journal of Medicine* 368, no. 14 (April 4, 2013): 1279–1290.
- European Food Safety Authority. "Analysis of Occurrence of 3 monochloropropane 1,2 diol (3 MCPD) in Food in Europe in the Year 2009–2011 and Preliminary Exposure Assessment." *EFSA Journal* 11, no. 9 (2013): 3381. doi:10.2903/j.efsa.2013.3381.
- Expert Panel on Trans Fatty Acids and Coronary Heart Disease. "Trans Fatty Acids and Coronary Heart Disease Risk." *American Journal of Clinical Nutrition* 62, no. 3 suppl. (1995): 655S–708S.
- Falta, Wilhelm. *Endocrine Diseases, Including Their Diagnosis and Treatment*. Philadelphia: P. Blakiston's Sons, 1923.
- Federal Trade Commission, Complaint, "In the Matter of Standard Brands, Inc., et al.: Consent Order, Etc., In Regard to the Alleged Violation of the Federal Trade Commission Act." Docket C-2377, April 9, 1973.
- Fehily, A. M., J. W. G. Yarnell, P. M. Sweetnam, and P. C. Elwood. "Diet and Incident of Ischaemic Heart Disease: The Caerphilly Study." *British Journal of Nutrition* 69, no. 2 (March 1993): 303–314.
- Feinleib, Manning. "On a Possible Inverse Relationship Between Serum Cholesterol and Cancer Mortality." *American Journal of Epidemiology* 114, no. 1 (July 1981): 5–10.
- . "Summary of a Workshop on Cholesterol and Noncardiovascular Disease Mortality." *Preventive Medicine* 11, no. 3 (May 1982): 360–367.
- Feron, V. J., H. P. Til, Flora de Vrijer, et al. "Aldehydes: Occurrence, Carcinogenic Potential, Mechanism of Action and Risk Assessment." *Mutation Research* 259, no. 3–4 (March–April 1991): 363–385.
- Ferro-Luzzi, Anna, and Francesco Branca. "Mediterranean Diet, Italian-Style: Prototype of a Healthy Diet." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1338S–1345S.

- Ferro-Luzzi, Anna, Philip James, and Anthony Kafatos. "The High-Fat Greek Diet: a Recipe for All?" *European Journal of Clinical Nutrition* 56, no. 9 (September 2002): 796–809.
- . "Response to Letter: Response to the Letter Submitted by D. Trichopoulos entitled, 'In Defense of the Mediterranean Diet.'" *European Journal of Clinical Nutrition* 56, no. 9 (September 2002): 930–931.
- Ferro-Luzzi, Anna, and Stefania Sette. "The Mediterranean Diet: An Attempt to Define Its Present and Past Composition." *European Journal of Clinical Nutrition* 43, no. 2 suppl. (1989): 13–29.
- Ferro-Luzzi, Anna, Pasquale Strazzullo, Cristina Scaccini, et al. "Changing the Mediterranean Diet: Effects on Blood Lipids." *American Journal of Clinical Nutrition* 40, no. 5 (November 1984): 1027–1037.
- Fiedorowicz, Jess G., and William G. Haynes. "Cholesterol, Mood, and Vascular Health: Untangling the Relationship. Does Low Cholesterol Predispose to Depression and Suicide, or Vice Versa?" *Current Psychiatry* 9, no. 7 (July 2010): 17–22.
- Finegan, Aileen, Noel Hickey, Brian Maurer, and Risteárd Mulcahy. "Diet and Coronary Heart Disease: Dietary Analysis on 100 Male Patients." *American Journal of Clinical Nutrition* 21, no. 2 (February 1968): 143–148.
- . "Diet and Coronary Heart Disease: Dietary Analysis on 50 Female Patients." *American Journal of Clinical Nutrition* 22, no. 1 (January 1969): 8–9.
- Firestone, David. "Worldwide Regulation of Frying Fats and Oils." *Inform* 4 (1993): 1366–1371.
- Fischer, Louis, and Julian L. Rogatz. "Insulin in Malnutrition." *Archives of Pediatrics & Adolescent Medicine* 31, no. 3 (March 1926): 363–372.
- Fitó, M., M. Cladellas, R. de la Torre, et al. "Anti-Inflammatory Effect of Virgin Olive Oil in Stable Coronary Disease Patients: A Randomized, Crossover, Controlled Trial." *European Journal of Clinical Nutrition* 62, no. 4 (April 2004): 570–574.
- Flavell, C. M. "Women and Coronary Heart Disease." *Progress in Cardiovascular Nursing* 9, no. 4 (Fall 1994): 18–27.
- Flint, Austin. *A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart*. Philadelphia: Blanchard and Lea, 1859.
- Flock, M. R., J. A. Fleming, and Penny M. Kris-Etherton. "Macronutrient Replacement Options for Saturated Fat: Effects on Cardiovascular Health." *Current Opinion in Lipidology* 25, no. 1 (February 2014): 67–74.
- Fogliano, Vincenzo, and Raffaele Sacchi. "Oleocanthal in Olive Oil: Between Myth and Reality." *Molecular Nutrition & Food Research* 50, no. 1 (January 2006): 5–6.
- Food and Agriculture Organization of the United Nations. "Fats and Fatty Acids in Human Nutrition: Report of an Expert Consultation. 10–14 November 2008." *FAO Food and Nutrition Paper* 91. Rome: Food and Agriculture Organization of the United Nations, 2010.
- Food and Drug Administration, US Department of Health and Human Services. "Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims; Proposed Rule." Washington, DC: US Government Printing Office, 1999.
- . "Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims, Final and Proposed Rule." *Federal Register* 68, no. 133. Washington, DC: US Government Printing Office, July 11, 2003.

- Food and Nutrition Board, Division of Biological Sciences, Assembly of Life Sciences, The National Research Council, National Academy of Sciences. *Toward Healthful Diets*. Washington, DC: National Academy Press, 1980.
- Foppa, Ivo, and Christoph E. Minder. "Oral, Pharyngeal and Laryngeal Cancer as a Cause of Death Among Swiss Cooks." *Scandinavian Journal of Work, Environment & Health* 18, no. 5 (October 1992): 287–292.
- Forbes, Hamish. "Ethnoarchaeology and the Place of the Olive in the Economy of the Southern Argolid, Greece." In *La Production du Vin et l'Huile en Méditerranée*. Edited by M.-C. Amouretti and J.-P. Brun, 213–226. Paris: Ecole Française d'Athènes, 1993.
- Forsythe, Cassandra E., Stephen D. Phinney, Richard D. Feinman, et al. "Limited Effect of Dietary Saturated Fat on Plasma Saturated Fat in the Context of a Low Carbohydrate Diet." *Lipids* 45, no. 10 (October 2010): 947–962.
- Foster, Gary D., Holly R. Wyatt, James O. Hill, et al. "Weight and Metabolic Outcomes After 2 Years on a Low-Carbohydrate Versus Low-Fat Diet: A Randomized Trial." *Annals of Internal Medicine* 153, no. 3 (August 3, 2010): 147–157.
- Frank, Charles W., Eve Weinblatt, and Sam Shapiro. "Angina Pectoris in Men." *Circulation* 42, no. 3 (March 1973): 509–517.
- Frantz, Ivan D., Emily A. Dawson, Patricia L. Ashman, et al. "Test of Effect of Lipid Lowering by Diet on Cardiovascular Risk. The Minnesota Coronary Survey." *Arteriosclerosis, Thrombosis, and Vascular Biology* 9, no. 1 (January–February 1989): 129–135.
- Fraser, Gary E. "Determinants of Ischemic Heart Disease in Seventh-Day Adventists: A Review." *American Journal of Clinical Nutrition* 48, no. 3 suppl. (September 1988): 833–836.
- Fraser, Gary E., Joan Sabaté, and W. Lawrence Beeson. "The Application of Results of Some Studies of California Seventh-Day Adventists to the General Population." *Archives of Internal Medicine* 153, no. 4 (February 22, 1993): 533–534.
- Fredrickson, Donald S. "Mutants, Hyperlipoproteinaemia, and Coronary Artery Disease." *British Medical Journal* 2, no. 5755 (April 24, 1971): 187–192.
- Freedman, David S., Charles L. Shear, Sathanur R. Srinivasan, Larry S. Webber, and Gerald S. Berenson. "Tracking of Serum Lipids and Lipoproteins in Children Over an 8-year Period: The Bogalusa Heart Study." *Preventive Medicine* 14, no. 2 (March 1985): 203–216.
- Fullanana, Andres, Angel A. Carbonell-Barrachina, and Sukh Sidhu. "Comparison of Volatile Aldehydes Present in the Cooking Fumes of Extra Virgin Olive, Olive, and Canola Oils." *Journal of Agriculture and Food Chemistry* 52, no. 16 (August 11, 2004): 5207–5214.
- Galan, Pilar, Emmanuelle Kesse-Guyot, Sébastien Czernichow, Serge Briancon, Jacques Blacher, and Serge Hercberg. "Effects of B Vitamins and Omega 3 Fatty Acids on Cardiovascular Disease: A Randomised Placebo Controlled Trial." *British Medical Journal* 341 (November 29, 2010): 1–9.
- Gammal, Elias B., Kenneth K. Carroll, and Earl R. Plunkett. "Effects of Dietary Fat on the Uptake and Clearance of 7,12-Dimethylbenz(α)anthracene by Rat Mammary Tissue." *Cancer Research* 28, no. 2 (February 1968): 384–385.
- Garcia-Palmieri, Mario R., Paul D. Sorlie, Raul Costas, Jr., and Richard J. Havlik. "An Apparent Inverse Relationship Between Serum Cholesterol and Cancer Mortality in Puerto Rico." *American Journal of Epidemiology* 114, no. 1 (July 1981): 29–40.
- Gardner, Christopher D., Alexandre Kiazand, Sofiya Alhassan, et al. "Comparison of the Atkins, Zone, Ornish, and LEARN Diets for Change in Weight and Related Risk Factors

- Among Overweight Premenopausal Women: The A TO Z Weight Loss Study: A Randomized Trial." *Journal of the American Medical Association* 297, no. 9 (March 7, 2007): 969–977; "Corrections: Incorrect Wording and Data Error." *Journal of the American Medical Association* 298, no. 2 (2007): 178.
- Garg, Rekha, Jennifer H. Madans, and Joel C. Kleinman. "Regional Variation in Ischemic Heart Disease Incidence." *Journal of Clinical Epidemiology* 45, no. 2 (February 1992): 149–156.
- German, J. Bruce, Robert A. Gibson, Ronald M. Krauss, et al. "A Reappraisal of the Impact of Dairy Foods and Milk Fat on Cardiovascular Disease Risk." *European Journal of Nutrition* 48, no. 4 (2009): 191–203.
- Gertler, Menard M., Paul D. White, Raoul Simon, and Lida G. Gottsch. "Long-Term Follow-up of Young Coronary Patients." *American Journal of Medical Sciences* 247, no. 2 (February 1964): 145–155.
- Gibbons, Gary H., John Gordon Harold, Mariell Jessup, Rose Marie Robertson, and William Oetgen. "The Next Steps in Developing Clinical Practice Guidelines for Prevention." *Circulation* 128, no. 15 (October 8, 2013): 1716–1717.
- Gilchrist, A. Rae. "The Edinburgh Tradition in Clinical Cardiology." *Scottish Medical Journal* 17, no. 8 (August 1972): 282–287.
- Ginsberg, Henry N., Penny Kris-Etherton, Barbara Dennis, et al. "Effects of Reducing Dietary Saturated Fatty Acids on Plasma Lipids and Lipoproteins in Healthy Subjects: The DELTA Study, Protocol 1." *Arteriosclerosis, Thrombosis, and Vascular Biology* 18, no. 3 (March 1998): 441–449.
- GISSI-Prevenzione Investigators (Gruppo Italiano per lo Studio della Sopravvivenza nell'Infarto Miocardico). "Dietary Supplementation with n-3 Polyunsaturated Fatty Acids and Vitamin E after Myocardial Infarction: Results of the GISSI-Prevenzione Trial." *Lancet* 354, no. 9177 (August 7, 1999): 447–455.
- Glazer, M. D., and J. W. Hurst. "Coronary Atherosclerotic Heart Disease: Some Important Differences Between Men and Women." *American Journal of Noninvasive Cardiology* 61, no. 1 (1987).
- Gofman, John W., Frank Lindgren, Harold Elliott, et al. "The Role of Lipids and Lipoproteins in Atherosclerosis." *Science* 111, no. 2877 (February 17, 1950): 166–186.
- Gofman, John W., Alex Y. Nichols, and E. Virginia Dobbin. *Dietary Prevention and Treatment of Heart Disease*. New York: Putnam, 1958.
- Gogoi, Palavi. "Atkins Gets Itself in a Stew." *Bloomberg Businessweek*, August 1, 2005.
- Goldbourt, U., S. Yaari, and J. H. Medalie. "Factors Predictive of Long-Term Coronary Heart Disease Mortality Among 10,059 Male Israeli Civil Servants and Municipal Employees. A 23-Year Mortality Follow-up in the Israeli Ischemic Heart Disease Study." *Cardiology* 82, nos. 2–3 (1993): 100–121.
- Gordon, Edgar S., Marshall Goldberg, and Grace J. Chosy. "A New Concept in the Treatment of Obesity." *Journal of the American Medical Association* 186, no. 1 (October 5, 1963): 156–166.
- Gordon, Robert S., and Amelia Cherkes. "Unesterified Fatty Acid in Human Blood Plasma." *Journal of Clinical Investigation* 35, no. 2 (February 1956): 206–212.
- Gordon, Tavia, William P. Castelli, Marthana C. Hjortland, William B. Kannel, and Thomas R. Dawber. "High Density Lipoprotein as a Protective Factor Against Coronary Heart

- Disease: The Framingham Study." *American Journal of Medicine* 62, no. 5 (May 1977): 707–714.
- Gould, K. Lance, Dean Ornish, Larry Scherwitz, et al. "Changes in Myocardial Perfusion Abnormalities by Positron Emission Tomography after Long-Term, Intense Risk Factor Modification." *Journal of the American Medical Association* 274, no. 11 (September 20, 1995): 894–901.
- Gould, R. Gordon. "Lipid Metabolism and Atherosclerosis." *American Journal of Medicine* 11, no. 2 (August 1951): 209–227.
- Gould, R. Gordon, C. Bruce Taylor, Joanne S. Hagerman, Irving Warner, and Donald J. Campbell. "Cholesterol Metabolism: I. Effect of Dietary Cholesterol on the Synthesis of Cholesterol in Dog Tissue in Vitro." *Journal of Biological Chemistry* 201, no. 2 (April 1, 1953): 519–528.
- Greenberg, Samuel M., and A. C. Frazer. "Some Factors Affecting the Growth and Development of Rats Fed Rancid Fat." *Journal of Nutrition* 50, no. 4 (August 1953): 421–440.
- Greenblatt, James M. "Low Cholesterol and Its Psychological Effects: Low Cholesterol Is Linked to Depression, Suicide, and Violence." *Psychology Today*, June 10, 2011. Accessed January 2, 2014. <http://www.psychologytoday.com/blog/the-breakthrough-depression-solution/201106/low-cholesterol-and-its-psychological-effects>.
- Griel, Amy E., and Penny Kris-Etherton. "Brief Critical Review: Beyond Saturated Fat: The Importance of the Dietary Fatty Acid Profile on Cardiovascular Disease." *Nutrition Reviews* 64, no. 5 (May 2006): 257–262.
- Grigg, David. "Olive Oil, the Mediterranean and the World." *GeoJournal* 53, no. 2 (February 2001): 163–172.
- Groen, J., B. K. Tjong, C. E. Kamminga, and A. F. Willebrands. "Influence of Nutrition, Individual, and Some Other Factors, Including Various Forms of Stress, on Serum Cholesterol; Experiment of Nine Months' Duration in 60 Normal Human Volunteers." *Voeding* 13 (October 1952): 556–587.
- Grootveld, Martin, Christopher J. L. Silwood, Paul Addis, Andrew Claxson, Bartolomé Bonet Serra, and Marta Viana. "Health Effects of Oxidized Heated Oils." *Foodservice Research International* 13, no. 1 (October 2001): 41–55.
- Grootveld, Martin, Christopher J. L. Silwood, and Andrew W. D. Claxson. "Letter to the Editor. Warning: Thermally-Stressed Polyunsaturates Are Damaging to Health." *Food Chemistry* 67 (1999): 211–213.
- Grundy, Scott, David Bilheimer, Henry Blackburn, et al. "Rationale of the Diet-Heart Statement of the American Heart Association." *Circulation* 65, no. 4 (April 1982): 839A–854A.
- Grune, Tilman, Neven Zarkovic, and Kostelidou Kalliopi. "Lipid Peroxidation Research in Europe and the COST B35 Action 'Lipid Peroxidation Associated Disorders.'" *Free Radical Research* 44, no. 10 (October 2010): 1095–1097.
- Guberman, E. "Surprising Decline of Cardiovascular Mortality in Switzerland: 1951–1976." *Journal of Epidemiology and Community Health* 33, no. 2 (June 1979): 114–120.
- Halperin, M., Jerome Cornfield, and S. C. Mitchell. "Letters to the Editor: Effect of Diet on Coronary-Heart-Disease Mortality." *Lancet* 302, no. 7826 (August 25, 1973): 438–439.

- Hamilakis, Yannis. "Food Technologies/Technologies of the Today: The Social Context of Wine and Oil Production and Consumption in Bronze Age Crete." *World Archeology* 31, no. 1 (June 1999): 38–54.
- Han, In Hwa, and A. Saari Csallany. "Formation of Toxic α - β -Unsaturated 4-Hydroxy-Aldehydes in Thermally Oxidized Fatty Acid Methyl Esters." *Journal of the American Oil Chemists' Society* 86, no. 3 (March 2009): 253–260.
- . "Temperature Dependence of HNE Formation in Vegetable Oils and Butter Oil." *Journal of the American Oil Chemists' Society* 85, no. 8 (August 2008): 777–782.
- Han, Paul W., and Lawrence A. Frohman. "Hyperinsulinemia in Tube-fed Hypophysectomized Rats Bearing Hypothalamic Lesions." *American Journal of Physiology* 219, no. 6 (1970): 1632–1636.
- Hankins, Gerald W. *Sunrise Over Panguirtung: The Story of Otto Schaefer, M.D.* Calgary, Canada: The Arctic Institute of North America of the University of Calgary, 2000.
- Hansen, Anders. "Swedish Health Advisory Body Says Too Much Carbohydrate, Not Fat, Leads to Obesity." *British Medical Journal* 347 (November 15, 2013). doi: 10.1136/bmj.f6873.
- Hanssen, Per. "Treatment of Obesity by a Diet Relatively Poor in Carbohydrates." *Acta Medica Scandinavica* 88, no. 1 (January 1936): 97–106.
- Hardinge, Mervyn G., and Fredrick J. Stare. "Nutritional Studies of Vegetarians. 2. Dietary and Serum Levels of Cholesterol." *American Journal of Clinical Nutrition* 2, no. 2 (March 1954): 83–88.
- Hardy, Stephen C., and Ronald E. Kleinman. "Fat and Cholesterol in the Diet of Infants and Young Children: Implications for Growth, Development, and Long-Term Health." *Journal of Pediatrics* 125, no. 5, part 2 (November 1994): S69–S77.
- Harman, Denham. "Letter to the Editor. Atherosclerosis: Possible Ill-Effects of the Use of Highly Unsaturated Fats to Lower Serum Cholesterol Levels." *Lancet* 275, no. 7005 (November 30, 1957): 1116–1117.
- Harris, Maureen I. "Prevalence of Noninsulin-Dependent Diabetes and Impaired Glucose Tolerance." In *Diabetes in America: Diabetes Data Compiled in 1984*, 1–31. US Department of Health and Human Services, Public Health Service, August 1985.
- Harris, William S., Dariush Mozaffarian, Eric Rimm, et al. "Omega-6 Fatty Acids and Risk for Cardiovascular Disease. A Science Advisory from the American Heart Association Nutrition Subcommittee of the Council of Nutrition, Physical Activity, and Metabolism; Council on Cardiovascular Nursing; and Council on Epidemiology and Prevention." *Circulation* 119, no. 6 (February 17, 2009): 902–907.
- Hayes, Kenneth C., for the Expert Panel. "Fatty Acid Expert Roundtable: Key Statements about Fatty Acids." *Journal of the American College of Nutrition* 29, no. 3 suppl. (2010): 285S–288S.
- Hays, James H., Angela DiSabatino, Robert T. Gorman, Simi Vincent, and Michael E. Stillabower. "Effect of a High Saturated Fat and No-Starch Diet on Serum Lipid Subfractions in Patients with Documented Atherosclerotic Cardiovascular Disease." *Mayo Clinic Proceedings* 78, no. 11 (November 2003): 1331–1336.
- Hayward, Rodney A., and Harlan M. Krumholz. "Three Reasons to Abandon Low-Density Lipoprotein Targets: An Open Letter to the Adult Treatment Panel IV of the National Institute of Health." *Circulation: Cardiovascular Quality and Outcomes* 5, no. 1 (January 2012): 2–5.

- Haywood, Rachel M., Andrew W. D. Claxson, Geoffrey W. Hawkes, et al. "Detection of Aldehydes and Their Conjugated Hydroperoxydiene Precursors in Thermally-Stressed Culinary Oils and Fats: Investigations Using High Resolution Proton NMR Spectroscopy." *Free Radical Research* 22, no. 5 (May 1995): 441–482.
- Hecht, Harvey S., and H. Robert Superko. "Electron Beam Tomography and National Cholesterol Education Program Guidelines in Asymptomatic Women." *Journal of the American College of Cardiology* 37, no. 6 (May 2001): 1506–1511.
- Hegsted, Mark. "Washington—Dietary Guidelines." Preventing Heart Attack and Stroke: A History of Cardiovascular Disease Epidemiology, ed. Henry Blackburn, last accessed January 29, 2014, <http://www.epi.umn.edu/cvdepi/pdfs/Hegstedguidelines.pdf>.
- Helsing, Elisabet, and Antonia Trichopoulou, eds. "The Mediterranean Diet and Food Culture—a Symposium." *European Journal of Clinical Nutrition* 43, suppl. 2 (1989): 1–92.
- Hetherington, A. W., and S. W. Ranson. "The Spontaneous Activity and Food Intake of Rats with Hypothalamic Lesions." *American Journal of Physiology* 136, no. 4 (1942): 609–617.
- Hibbeln, Joseph R., and Norman Salem, Jr. "Dietary Polyunsaturated Fatty Acids and Depression: When Cholesterol Does Not Satisfy." *American Journal of Clinical Nutrition* 62, no. 1 (July 1995): 1–9.
- Hibbeln, Joseph R., John C. Umhau, David T. George, and Norman Salem, Jr. "Do Plasma Polyunsaturates Predict Hostility and Violence?" In *Nutrition and Fitness: Metabolic and Behavior Aspects in Health and Disease, World Review of Nutrition and Diabetics*. Edited by A. P. Simopoulos and K. N. Pavlou. Basel, Switzerland: Karger, 1996, 175–186.
- Hilditch, Thomas Percy, and N. L. Vidyarthi. "The Products of Partial Hydrogenation of Higher Monoethylenic Esters." *Proceedings of the Royal Society of London. Series A, Mathematical, Physical and Engineering Sciences* 122, no. 790 (February 1, 1929): 552–570.
- Hirsch, Jules, and Edward H. Ahrens, Jr. "The Separation of Complex Lipide Mixtures by the Use of Silic Acid Chromatography." *Journal of Biological Chemistry* 233, no. 2 (August 1958): 311–320.
- Hite, Adele H., Richard David Feinman, Gabriel E. Guzman, Morton Satin, Pamela A. Schoenfeld, and Richard J. Wood. "In the Face of Contradictory Evidence: Report of the Dietary Guidelines for Americans Committee." *Nutrition* 26, no. 10 (October 2010): 915–924.
- Hoffman, William. "Meet Monsieur Cholesterol." Update. University of Minnesota, 1979. Accessed January 2, 2013. http://mbbnet.umn.edu/hoff/hoff_ak.html.
- Holmes, Michelle D., David J. Hunter, Graham A. Colditz, et al. "Association of Dietary Intake of Fat and Fatty Acids with Risk of Breast Cancer." *Journal of the American Medical Association* 281, no. 10 (March 10, 1999): 914–920.
- Hooper, Lee, Paul A. Kroon, Eric B. Rimm, et al. "Flavonoids, Flavonoid-Rich Foods, and Cardiovascular Risk: a Meta-Analysis of Randomized Controlled Trials." *American Journal of Clinical Nutrition* 88, no. 1 (July 2008): 38–50.
- Hopkins, Paul N. "Effects of Dietary Cholesterol on Serum Cholesterol: A Meta-Analysis and Review." *American Journal of Clinical Nutrition* 55, no. 6 (June 1992): 1060–1070.
- Hornstra, Gerard, and Anna Vendelmans-Starrenburg. "Induction of Experimental Arterial Occlusive Thrombi in Rats." *Atherosclerosis* 17, no. 3 (May–June 1973): 369–382.
- Horowitz, Roger. *Putting Meat on the American Table: Taste, Technology, Transformation*. Baltimore, MD: Johns Hopkins University Press, 2006.

- Horton, Richard. "Expression of Concern: Indo-Mediterranean Diet Heart Study." *The Lancet* 366, no. 9483 (July 30, 2005): 354–356.
- Howard, Barbara V., JoAnn E. Manson, Marcia L. Stefanick, et al. "Low-Fat Dietary Pattern and Weight Change Over 7 Years: The Women's Health Initiative Dietary Modification Trial." *Journal of the American Medical Association* 295, no. 1 (January 4, 2006): 39–49.
- Howard, Barbara V., Linda Van Horn, Judith Hsia, et al. "Low-Fat Dietary Pattern and Risk of Cardiovascular Disease: The Women's Health Initiative Randomized Controlled Dietary Modification Trial." *Journal of the American Medical Association* 295, no. 6 (February 8, 2006): 655–666.
- Hrdlička, Aleš. *Physiological and Medical Observations Among the Indians of Southwestern United States and Northern Mexico*, No. 34. Washington, DC: US Government Printing Office, 1908.
- Hu, Frank B. "The Mediterranean Diet and Mortality—Olive Oil and Beyond." *New England Journal of Medicine* 348, no. 26 (June 26, 2003): 2595–2596.
- Hu, Frank B., JoAnn E. Manson, and Walter C. Willett. "Types of Dietary Fat and Risk of Coronary Heart Disease: A Critical Review." *Journal of American College of Nutrition* 20, no. 1 (February 2001): 5–19.
- Hulley, Stephen B., Judith M. B. Walsh, and Thomas B. Newman. "Health Policy on Blood Cholesterol. Time to Change Directions." *Circulation* 86, no. 3 (September 1992): 1026–1029.
- Hunter, Beatrice Trum. *Consumer Beware*. New York: Simon & Schuster, 1971.
- Hunter, David J., Eric B. Rimm, Frank M. Sacks, Meir J. Stampfer, Graham A. Colditz, Lisa B. Litin, and Walter C. Willett. "Comparison of Measures of Fatty Acid Intake by Subcutaneous Fat Aspirate, Food Frequency Questionnaire, and Diet Records in a Free-Living Population of US Men." *American Journal of Epidemiology* 135, no. 4 (February 15, 1992): 418–427.
- Hunter, J. Edward. "Dietary *trans* Fatty Acids: Review of Recent Human Studies and Food Industry Responses." *Lipids* 41, no. 11 (November 2006): 967–992.
- Hunter, J. Edward, and Thomas H. Applewhite. "Isomeric Fatty Acids in the US Diet: Levels and Health Perspectives." *American Journal of Clinical Nutrition* 44, no. 6 (December 1986): 707–717.
- Hustvedt, B. E., and A. Løvø. "Correlation between Hyperinsulinemia and Hyperphagia in Rats with Ventromedial Hypothalamic Lesions." *Acta Physiologica Scandinavica* 84, no. 1 (January 1972): 29–33.
- Institute of Medicine of the National Academies, Panel on Macronutrients, Panel on the Definition of Dietary Fiber, Subcommittee on Upper Reference Levels of Nutrients, Subcommittee on Interpretation and Uses of Dietary Reference Intakes, and the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes. "Dietary Fats: Total Fat and Fatty Acids." In *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids, part 1*. Washington, DC: National Academies Press, 2002.
- . "Letter Report on Dietary Reference Intakes for Trans Fatty Acids." In *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids, part 1*. Washington, DC: National Academies Press, 2002.
- Istituto Nazionale di Statistica. "Statistical Analysis on Young Conscripts" (Analisi Statistica sui Giovani Iscritti nelle Liste di Leva). ISTAT Notiziario Serie 4 Foglio 41 (1993): 1–10.

- International Agency for Research on Cancer, World Health Organization. "Household Use of Solid Fuels and High-Temperature Frying." *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, vol. 95. Lyon, France: IARC, 2006.
- Jacobs, David, Henry Blackburn, Millicent Higgins, et al. "Report of the Conference on Low Blood Cholesterol: Mortality Associations." *Circulation* 86, no. 3 (January 1992): 1046–1060.
- Jacobson, Michael F., and Sarah Fritschner. *The Fast-Food Guide: What's Good, What's Bad, and How to Tell the Difference*. New York: Workman, 1986.
- Jochim, Michael A. *Strategies for Survival: Cultural Behavior in an Ecological Context*. New York: Academic Press, 1981.
- Johnson, Richard J. *The Fat Switch*. Mercola.com, 2012.
- Johnston, Patricia V., Ogden C. Johnson, and Fred A. Kummerow. "Occurrence of Trans Fatty Acids in Human Tissue." *Science* 126, no. 3276 (October 11, 1957): 698–699.
- . "Deposition in Tissues and Fecal Excretion of Trans Fatty Acids in the Rat." *Journal of Nutrition* 65, no. 1 (May 10, 1958): 13–23.
- Jolliffe, Norman, Seymour H. Rinzler, and Morton Archer. "The Anti-Coronary Club: Including a Discussion of the Effects of a Prudent Diet on the Serum Cholesterol Level of Middleaged Men." *The American Journal of Clinical Nutrition* 7, no. 4 (July 1959): 451–462.
- Jones, David S. "Visions of a Cure: Visualization, Clinical Trials, and Controversies in Cardiac Therapeutics, 1968–1998." *Isis* 91, no. 3 (September 2000): 504–541.
- Joslin, Elliot Proctor. *A Diabetic Manual for the Mutual Use of Doctor and Patient*. Philadelphia: Lea & Febiger, 1919.
- Judd, Joseph T., Beverly A. Clevidence, Richard A. Muesing, Janet Wittes, Matthew E. Sunkin, and John J. Podczasy. "Dietary Trans Fatty Acids: Effects on Plasma Lipids and Lipoproteins of Healthy Men and Women." *American Journal of Clinical Nutrition* 59, no. 4 (April 1994): 861–868.
- Kaaks, Rudolf, Nadia Slimani, and Elio Riboli. "Pilot Phase Studies on the Accuracy of Dietary Intake Measurements in the EPIC Project: Overall Evaluation of Results." *International Journal of Epidemiology* 26, no. 1 suppl. (1997): S26–36.
- Kagan, Abraham, Jordan Popper, Dwayne M. Reed, Charles J. MacLean, and John S. Grove. "Trends in Stroke Incidence and Mortality in Hawaiian Japanese Men." *Stroke* 25, no. 6 (June 1994): 1170–1175.
- Kaminer, Benjamin, and W. P. W. Lutz. "Blood Pressure in Bushmen of the Kalahari Desert." *Circulation* 22, no. 2 (August 1960): 289–295.
- Kannel, William B. "Metabolic Risk Factors for Coronary Heart Disease in Women: Perspective from the Framingham Study." *American Heart Journal* 114, no. 2 (August 1987): 413–419.
- Kannel, William B., William P. Castelli, Tavia Gordon, and Patricia M. McNamara. "Serum Cholesterol, Lipoproteins, and the Risk of Coronary Heart Disease, The Framingham Study." *Annals of Internal Medicine* 74, no. 1 (January 1, 1971): 1–12.
- Kannel, William B., Thomas R. Dawber, Abraham Kagan, Nicholas Revotskie, and Joseph Stokes. "Factors of Risk in the Development of Coronary Heart Disease—Six-Year Follow-up Experience. The Framingham Study." *Annals of Internal Medicine* 55, no. 1 (July 1961): 33–50.

- Kannel, William B., and Tavia Gordon. "The Framingham Study: An Epidemiological Investigation of Cardiovascular Disease." Section 24, unpublished paper. Washington, DC: National Heart, Lung, and Blood Institute, 1987.
- Kaplan, Robert M. *Disease, Diagnosis and Dollars*. New York: Copernicus Books, 2009.
- Kaplan, Robert M., and Michelle T. Toshima. "Does a Reduced Fat Diet Cause Retardation in Child Growth?" *Preventive Medicine* 21, no. 1 (January 1992): 33–52.
- Kark, J. D., A. H. Smith, and C. G. Hames. "The Relationship of Serum Cholesterol to the Incidence of Cancer in Evans County, Georgia." *Journal of Chronic Diseases* 33, no. 5 (1980): 311–322.
- Katan, Martijn B. "High-oil Compared with Low-Fat, High-Carbohydrate Diets in the Prevention of Ischemic Heart Disease." *American Journal of Clinical Nutrition* 66, no. 4 suppl. (1997): 974S–979S.
- Katan, Martijn B., Scott M. Grundy, and Walter C. Willett. "Should a Low-Fat, High-Carbohydrate Diet Be Recommended for Everyone? Beyond Low-Fat Diets." *New England Journal of Medicine* 337, no. 8 (August 21, 1997): 563–566.
- Katan, Martijn B., Peter L. Zock, and Ronald P. Mensink. "Dietary Oils, Serum Lipoproteins, and Coronary Heart Disease." *American Journal of Clinical Nutrition* 61, no. 6 (1995): 1368S–1373S.
- Kato, Hiroo, Jeanne Tillotson, Milton Z. Nichaman, George G. Rhoads, and Howard B. Hamilton. "Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California." *American Journal of Epidemiology* 97, no. 6 (June 1973): 372–385.
- Katritsis, Demosthenes G., and John P. A. Ioannidis. "Percutaneous Coronary Intervention Versus Conservative Therapy in Nonacute Coronary Artery Disease: A Meta-Analysis." *Circulation* 111, no. 22 (June 7, 2005): 2906–2912.
- Katsouyanni, Klea, Eric B. Rimm, Charalambos Gnardellis, Dimitrio Trichopoulos, Evangelos Polychronopoulos, and Antonia Trichopoulou. "Reproducibility and Relative Validity of an Extensive Semi-Quantitative Food Frequency Questionnaire Using Dietary Records and Biochemical Markers among Greek Schoolteachers." *International Journal of Epidemiology* 26, no. 1, suppl. 1 (1997): S118–S127.
- Kaunitz, Hans. "Importance of Lipids in Arteriosclerosis: An Outdated Theory," in Select Committee on Nutrition and Human Needs of the United States Senate, *Dietary Goals for the United States—Supplemental Views*. 42–54. Washington, DC: US Government Printing Office, 1977.
- Kaunitz, Hans, and Ruth E. Johnson. "Exacerbation of the Heart and Liver Lesions in Rats by Feeding Various Mildly Oxidized Fats." *Lipids* 8, no. 6 (June 1973): 329–336.
- Kelleher, Philip C., Stephen D. Phinney, Ethan A. H. Sims, et al. "Effects of Carbohydrate-Containing and Carbohydrate-Restricted Hypocaloric and Eucaloric Diets on Serum Concentrations of Retinol-Binding Protein, Thyroxine-Binding Prealbumin and Transferrin." *Metabolism* 32, no. 1 (January 1983): 95–101.
- Key, Timothy J., Paul N. Appleby, Elizabeth A. Spencer, Ruth C. Travis, Andrew W. Roddam, and Naomi E. Allen. "Mortality in British Vegetarians: Results from the European Prospective Investigation into Cancer and Nutrition (EPIC-Oxford)." *American Journal of Clinical Nutrition* 89, no. 5 suppl. (May 2009): 1613S–1619S.
- Keys, Ancel. "Human Atherosclerosis and the Diet." *Circulation* 5, no. 1 (1952): 115–118.

- . “Atherosclerosis: A Problem in Newer Public Health.” *Journal of the Mount Sinai Hospital, New York* 20, no. 2 (July–August 1953): 118–139.
- . “The Diet and Development of Coronary Heart Disease.” *Journal of Chronic Disease* 4, no. 4 (October 1956): 364–380.
- . “Diet and the Epidemiology of Coronary Heart Disease.” *Journal of the American Medical Association* 164, no. 17 (August 24, 1957): 1912–1919.
- . “Epidemiologic Aspects of Coronary Artery Disease.” *Journal of Chronic Diseases* 6, no. 5 (November 1957): 552–559.
- . “Arteriosclerotic Heart Disease in Roseto, Pennsylvania.” *Journal of the American Medical Association* 195, no. 2 (January 10, 1966): 137–139.
- . “Sucrose in the Diet and Coronary Heart Disease.” *Atherosclerosis* 14, no. 2 (September–October 1971): 193–202.
- . “Letter: Sucrose in the Diet and Coronary Heart Disease.” *Atherosclerosis* 18, no. 2 (September–October 1973): 352.
- . “Letter to the Editors.” *Atherosclerosis* 18, no. 2 (September–October 1973): 352.
- . “Coronary Heart Disease—The Global Picture.” *Atherosclerosis* 22, no. 2 (September–October 1975): 149–192.
- . *Seven Countries: A Multivariate Analysis of Death and Coronary Heart Disease*. Cambridge, MA: Harvard University Press, 1980.
- . “From Naples to Seven Countries—A Sentimental Journey.” In *Progress in Biochemical Pharmacology* 19. Edited by R. J. Hegyeli, 1–30. Basel, Switzerland: Karger, 1983.
- . “Mediterranean Diet and Public Health.” *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1321S–1323S.
- Keys, Ancel, ed. “Coronary Heart Disease in Seven Countries.” *Circulation* 41 and 42, no. 1 suppl. 1, American Heart Association Monograph No. 29 (April 1970): 1–211.
- Keys, Ancel, and Joseph T. Anderson. “The Relationship of the Diet to the Development of Atherosclerosis in Man.” In *Symposium on Atherosclerosis*. Publication 338. Washington, DC: National Academy of Sciences–National Research Council, 1954, 181–196.
- Keys, Ancel, Joseph T. Anderson, Flaminio Fidanza, Margaret Haney Keys, and Bengt Swahn. “Effects of Diet on Blood Lipids In Man, Particularly Cholesterol and Lipoproteins.” *Clinical Chemistry* 1, no. 1 (February 1955): 34–52.
- Keys, Ancel, Joseph T. Anderson, and Francisco Grande. “Fats and Disease.” *Lancet* 272, no. 6796 (May 11, 1957): 992–993.
- . “Prediction of Serum-Cholesterol Responses of Man to Changes in Fats in the Diet.” *Lancet* 273, no. 7003 (November 16, 1957): 959–966.
- . “Serum Cholesterol in Man: Diet Fat and Intrinsic Responsiveness.” *Circulation* 19, no. 2 (1959): 201–214.
- Keys, Ancel, Christos Aravanis, and Helen Sdrin. “The Diets of Middle-aged Men in Two Rural Areas of Greece.” *Voeding* 27, no. 11 (1966): 575–586.
- Keys, Ancel, Flaminio Fidanza, Vincenzo Scardi, Gino Bergami, Margaret Haney Keys, and Ferruccio Di Lorenzo. “Studies on Serum Cholesterol and Other Characteristics of Clinically Healthy Men in Naples.” *Archives of Internal Medicine* 93, no. 3 (March 1954): 328–336.
- Keys, Ancel, and Francisco Grande. “Role of Dietary Fat in Human Nutrition: III. Diet and the Epidemiology of Coronary Heart Disease.” *American Journal of Public Health and the Nation’s Health* 47, no. 12 (December 1957): 1520–1530.

- Keys, Ancel, Francisco Grande, and Joseph T. Anderson. "Bias and Misrepresentation Revisited: 'Perspective' on Saturated Fat." *The American Journal of Clinical Nutrition* 27, no. 2 (February 1974): 188–212.
- Keys, Ancel, and Margaret Keys. *Eat Well and Stay Well*. New York: Doubleday, 1959.
- . *How to Eat Well and Stay Well the Mediterranean Way*. Garden City, NY: Doubleday, 1975.
- Keys, Ancel, and Noboru Kimora. "Diets of Middle-Aged Farmers in Japan." *American Journal of Clinical Nutrition* 23, no. 2 (February 1970): 212–223.
- Keys, Ancel, Alessandro Menotti, Christos Aravanis, et al. "The Seven Countries Study: 2,289 Deaths in 15 Years." *Preventive Medicine* 13, no. 2 (March 1984): 141–154.
- Keys, Ancel, Alessandro Menotti, Mariti J. Karvonen, et al. "The Diet and 15-year Death Rate in the Seven Countries Study." *American Journal of Epidemiology* 124, no. 6 (December 1986): 903–915.
- Keys, Ancel, Francisco Vivanco, J. L. Rodriguez Miñon, Margaret Haney Keys, and H. Castro Mendoza. "Studies on the Diet, Body Fatness and Serum Cholesterol in Madrid, Spain." *Metabolism Clinical and Experimental* 3, no. 3 (May 1954): 195–212.
- Khosla, Pramod. "Palm Oil: A Nutritional Overview." *Journal of Agriculture and Food Industry* 17 (2000): 21–23.
- Khosla, Pramod, and Kalyana Sundram, eds. "A Supplement on Palm Oil." *Journal of the American College of Nutrition* 29, no. 3 suppl. (June 2010): 237S–239S.
- Kim, Song-Suk, Daniel D. Gallaher, and A. Saari Csallany. "Lipophilic Aldehydes and Related Carbonyl Compounds in Rat and Human Urine." *Lipids* 34, no. 5 (May 1999): 489–495.
- Kimura, Noboru. "Changing Patterns of Coronary Heart Disease, Stroke, and Nutrient Intake in Japan." *Preventive Medicine* 12, no. 1 (January 1983): 222–227.
- Kinsell, Lawrence W., J. Partridge, Lenore Boling, S. Margen, and G. Michaels. "Dietary Modification of Serum Cholesterol and Phospholipid Levels." *Journal of Clinical Endocrinology and Metabolism* 12, no. 7 (July 1952): 909–913.
- Kinsella, John E., Geza Bruckner, J. Mai, and J. Shimp. "Metabolism of Trans Fatty Acids with Emphasis on the Effects of Trans, Trans-Octadecadienoate on Lipid Composition, Essential Fatty Acid, and Prostaglandins: An Overview." *American Journal of Clinical Nutrition* 34, no. 10 (October 1981): 2307–2318.
- Knittle, J. L., and Edward H. Ahrens, Jr. "Carbohydrate Metabolism in Two Forms of Hyperglycemia." *Journal of Clinical Investigation* 43 (March 1964): 485–495.
- Knopp, Robert H., Pathmaja Paramsothy, Barbara M. Retzlaff, et al. "Gender Differences in Lipoprotein Metabolism and Dietary Response: Basis in Hormonal Differences and Implications for Cardiovascular Disease." *Current Atherosclerosis Reports* 7, no. 6 (November 2005): 472–479.
- . "Sex Differences in Lipoprotein Metabolism and Dietary Response: Basis in Hormonal Differences and Implications for Cardiovascular Disease." *Current Cardiology Reports* 8, no. 6 (November 2006): 452–459.
- Knopp, Robert H., Barbara Retzlaff, Carolyn Walden, Brian Fish, Brenda Buck, and Barbara McCann. "One-Year Effects of Increasingly Fat-Restricted, Carbohydrate-Enriched Diets on Lipoprotein Levels in Free-living Subjects." *Proceedings for the Society of Experimental Biology and Medicine* 225, no. 3 (December 2000): 191–199.

- Koertge, Jenny, Gerdi Weidner, Melanie Elliot-Eller, et al. "Improvement in Medical Risk Factors and Quality of Life in Women and Men with Coronary Artery Disease in the Multicenter Lifestyle Demonstration Project." *American Journal of Cardiology* 91, no. 11 (June 2003): 1316–1322.
- Koeth, Robert A., Zeneng Wang, Bruce S. Levison, et al. "Intestinal Microbiota Metabolism of L-Carnitine, a Nutrient in Red Meat, Promotes Atherosclerosis." *Nature Medicine* 19, no. 5 (May 2013): 576–585.
- Kolata, Gina. "Heart Panel's Conclusions Questioned." *Science* 227, no. 4682 (January 4, 1985): 40–41.
- . "Culprit in Heart Disease Goes Beyond Meat's Fat." *New York Times*, April 8, 2013: A14.
- . "Eggs, Too, May Provoke Bacteria to Raise Heart Risk." *New York Times*, April 25, 2013: A14.
- Koletzko, Berthold, Katharina Dokoupil, Susanne Reitmayr, Barbara Weimert-Harendza, and Erich Keller. "Dietary Fat Intakes of Infants and Primary School Children in Germany." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1329S–1398S.
- Korányi, A. "Prophylaxis and Treatment of the Coronary Syndrome." *Therapia Hungarica* 12 (1963): 17.
- Kozarevic, Djordje, D. L. McGee, N. Vojvodic, et al. "Serum Cholesterol and Mortality: The Yugoslavia Cardiovascular Disease Study." *American Journal of Epidemiology* 114, no. 1 (1981): 21–28.
- Krauss, Ronald M. "Dietary and Genetic Probes of Atherogenic Dyslipidemia." *Arteriosclerosis, Thrombosis, and Vascular Biology* 25, no. 11 (November 2005): 2265–2272.
- Krauss, Ronald M., Patricia J. Blanche, Robin S. Rawlings, Harriett S. Fernstrom, and Paul T. Williams. "Separate Effects of Reduced Carbohydrate Intake and Weight Loss on Atherogenic Dyslipidemia." *American Journal of Clinical Nutrition* 83, no. 5 (May 2006): 1025–1031.
- Krauss, Ronald M., and Darlene M. Dreon. "Low-density-lipoprotein Subclasses and Response to a Low-fat Diet in Healthy Men." *American Journal of Clinical Nutrition* 62, no. 2 suppl. (August 1995): 478S–487S.
- Krauss, Ronald M., Robert H. Eckel, Barbara Howard, et al. "AHA Dietary Guidelines Revision 2000: A Statement for Healthcare Professionals from the Nutrition Committee of the American Heart Association." *Circulation* 102, no. 18 (October 31, 2000): 2284–2299.
- Krieger, James W., Harry S. Sitren, Michael J. Daniels, and Bobbi Langkamp-Henken. "Effects of Variation in Protein and Carbohydrate Intake on Body Mass and Composition During Energy Restriction: A Meta-Regression." *American Journal of Clinical Nutrition* 83, no. 2 (February 2006): 260–274.
- Kris-Etherton, Penny M., Robert H. Eckel, Barbara V. Howard, Sachiko St. Jeor, and Terry L. Bazzarre. "Lyon Diet Heart Study Benefits of a Mediterranean-Style, National Cholesterol Education Program/American Heart Association Step I Dietary Pattern on Cardiovascular Disease." *Circulation* 103, no. 13 (April 3, 2001): 1823–1825.
- Kris-Etherton, Penny M., and Robert J. Nicolosi. "Trans Fatty Acids and Coronary Heart Disease Risk." *American Journal of Clinical Nutrition* 62, no. 3 suppl. (1995): 655S–708S.

- Kris-Etherton, Penny M., Denise Shaffer Taylor, Shaomei Ya-Poth, et al. "Polyunsaturated Fatty Acids in the Food Chain in the United States." *American Journal of Clinical Nutrition* 71, no. 1 suppl. (January 2000): 179S–188S.
- Kristal, Alan R., Ulrike Peters, and John D. Potter. "Is It Time to Abandon the Food Frequency Questionnaire?" *Cancer Epidemiology, Biomarkers and Prevention* 14, no. 12 (December 2005): 2826–2828.
- Kromhout, Daan, and Bennie Bloemberg. "Diet and Coronary Heart Disease in the Seven Countries Study." In *Prevention of Coronary Heart Disease: Diet, Lifestyle and Risk Factors in the Seven Countries Study*. Edited by Daan Kromhout, Alessandro Menotti, and Henry Blackburn. Dordrecht, The Netherlands: Kluwer Academic Publishers, 2002, 43–70.
- Kromhout, Daan, Erik J. Giltay, and Johanna M. Geleijnse. "n-3 Fatty Acids and Cardiovascular Events after Myocardial Infarction." *New England Journal of Medicine* 363, no. 21 (November 18, 2010): 2015–2026.
- Kromhout, Daan, Ancel Keys, Christ Aravanis, et al. "Food Consumption Patterns in the 1960s in Seven Countries." *American Journal of Clinical Nutrition* 49, no. 5 (May 1989): 889–894.
- Kromhout, Daan, Alessandro Menotti, and Henry W. Blackburn, eds. *The Seven Countries Study: A Scientific Adventure in Cardiovascular Disease Epidemiology*. Bilthoven, The Netherlands, privately published, 1993.
- Kronmal, Richard A. "Commentary on the Published Results of the Lipid Research Clinics Coronary Primary Prevention Trial." *Journal of the American Medical Association* 253, no. 14 (April 12, 1985): 2091–2093.
- Krumholz, Harlan M. "Editorial: Target Cardiovascular Risk Rather than Cholesterol Concentration." *British Medical Journal* 347 (2013). doi:10.1136/bmj.f7110.
- Kummerow, Fred A., T. Mizuguchi, T. Arima, B. H. S. Cho, W. J. Huang, and R. Tracey. "The Influence of Three Sources of Dietary Fats and Cholesterol on Lipid Composition of Swine Serum Lipids and Aorta Tissue." *Artery* 4 (1978): 360–384.
- Kummerow, Fred A., Sherry Q. Zhou, and Mohamedain M. Mahfouz. "Effects of Trans Fatty Acids on Calcium Influx into Human Arterial Endothelial Cells." *American Journal of Clinical Nutrition* 70, no. 5 (November 1999): 832–838.
- Kuo, Peter T., Louise Feng, Norman N. Cohen, William T. Fitts, and Leonard D. Miller. "Dietary Carbohydrates in Hyperlipemia (Hyperglyceridemia); Hepatic and Adipose Tissue Lipogenic Activities." *American Journal of Clinical Nutrition* 20, no. 2 (February 1967): 116–125.
- Kurlansky, Mark. "Essential Oil." *Bon Appétit*. September 30, 2008. <http://www.bonappetit.com/trends/article/essential-oil>.
- Kushi, Lawrence H., and Edward Giovannucci. "Dietary Fat and Cancer." *American Journal of Medicine* 113, no. 9, suppl. B (December 30, 2002): 63S–70S.
- Kushi, Lawrence H., Elizabeth B. Lenart, and Walter C. Willett. "Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 1. Plant Foods and Dairy Products." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1407S–1415S.
- . "Health Implications of Mediterranean Diets in Light of Contemporary Knowledge. 2. Meat, Wine, Fats and Oils." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1416S–1427S.

- L'Abbé, M. R., Steen Stender, C. M. Skeaff, B. Ghafoorunissa, and M. Tavella. "Approaches to Removing *Trans* Fats from the Food Supply in Industrialized and Developing Countries." *European Journal of Clinical Nutrition* 63, suppl. (2009): S50–S67.
- Lamarche, Benoit, A. Tchernof, Sital Moorjani, et al. "Small, Dense Low-Density Lipoprotein Particles as a Predictor of the Risk of Ischemic Heart Disease in Men: Prospective Results From the Quebec Cardiovascular Study." *Circulation* 95, no. 1 (January 7, 1997): 69–75.
- Lands, William E. M., M. Blank, L. J. Nutter, and O. Privett. "A Comparison of Acyltransferase Activities in Vitro with the Distribution of Fatty Acids in Lecithins and Triglycerides in Vivo." *Lipids* 1, no. 3 (May 1966): 224–229.
- Lapinleimu, Helena, Jorma Vilkkari, Eero Jokinen, et al. "Prospective Randomised Trial in 1062 Infants of Diet Low in Saturated Fat and Cholesterol." *Lancet* 345, no. 8948 (February 25, 1995): 471–476.
- LaRosa, John C., Scott M. Grundy, David D. Waters, et al. "Intensive Lipid Lowering with Atorvastatin in Patients with Stable Coronary Disease." *New England Journal of Medicine* 352, no. 14 (April 7, 2005): 1425–1435.
- Laskarzewski, Peter, John A. Morrison, I. deGroot, et al. "Lipid and Lipoprotein Tracking in 108 Children Over a Four-Year Period." *Pediatrics* 64, no. 5 (November 1979): 584–591.
- Lawson, Larry D., and Fred A. Kummerow. "B-Oxidation of the Coenzyme A Esters of Vaccenic, Elaidic, and Petroselaidic Acids by Rat Heart Mitochondria." *Lipids* 14, no. 5 (May 1979): 501–503.
- Lee, Patrick Y., Karen P. Alexander, Bradley G. Hammill, Sara K. Pasquali, and Eric D. Peterson. "Representation of Elderly Persons and Women in Published Randomized Trials of Acute Coronary Syndromes." *Journal of the American Medical Association* 286, no. 6 (August 8, 2001): 708–713.
- Lehzen, George, and Karl Knauss. "Über Xanthoma Multiplex Planum, Tuberosum, Mollusciformis." *Archiv A, Pathological Anatomy and Histology* 116 (1889): 85–104.
- Leren, Paul. "The Effect of Plasma Cholesterol Lowering Diet in Male Survivors of Myocardial Infarction: A Controlled Clinical Trial." *Acta Medica Scandinavica Supplementum* 466 (1966): 1–92.
- Lesser, Lenard I., Cara B. Ebbeling, Merrill Goozner, David Wypij, and David S. Ludwig. "Relationship between Funding Source and Conclusion among Nutrition-Related Scientific Articles." *PLoS Medicine* 4, no. 1 (January 2007): 41–46.
- Levenstein, Harvey. *Paradox of Plenty: A Social History of Eating in Modern America*. Berkeley, CA: University of California Press, 2003.
- Levine, Deborah. "Corpulence and Correspondence: President William H. Taft and the Medical Management of Obesity." *Annals of Internal Medicine* 159, no. 8 (2013): 565–570.
- Levine, Janet M. "Hearts and Minds: The Politics of Diet and Heart Disease." In *Consuming Fears: The Politics of Product Risks*. Edited by Henry M. Sapolsky. New York: Basic Books, 1986, 40–79.
- Li, Zhengleng, James D. Otvos, Stefania Lamon-Fava, et al. "Men and Women Differ in Lipoprotein Response to Dietary Saturated Fat and Cholesterol Restriction." *Journal of Nutrition* 133, no. 11 (November 2003): 3428–3433.
- List, Gary R., and M. A. Jackson. "Giants of the Past: The Battle Over Hydrogenation (1903–1920)." *Inform* 18, no. 6 (June 2007): 403–405.

- Lichtenstein, Alice H., Lawrence J. Appel, Michael Brands, et al. "Diet and Lifestyle Recommendations, Revision 2006: A Scientific Statement from the American Heart Association Nutrition Committee." *Circulation* 114, no. 1 (July 4, 2006): 82–96.
- Lichtenstein, Alice H., Lynne M. Ausman, Wanda Carrasco, Jennifer L. Jenner, Jose M. Ordovas, and Ernst J. Schaefer. "Hydrogenation Impairs the Hypolipidemic Effect of Corn Oil in Humans. Hydrogenation, Trans Fatty Acids, and Plasma Lipids." *Arteriosclerosis, Thrombosis, and Vascular Biology* 13, no. 2 (February 1993): 154–161.
- Lichtenstein, Alice H., and Linda Van Horn. "Very Low Fat Diets." *Circulation* 98, no. 9 (1998): 935–939.
- Lieb, Clarence W. "The Effects on Human Beings of a Twelve Months' Exclusive Meat Diet: Based on Intensive Clinical and Laboratory Studies on Two Arctic Explorers Living Under Average Conditions in a New York Climate." *Journal of the American Medical Association* 93, no. 1 (July 6, 1929): 20–22.
- Lieb, Clarence W., and Edward Tolstoi. "Effect of an Exclusive Meat Diet on Chemical Constituents of the Blood." *Proceedings of the Society for Experimental Biology and Medicine* 26, no. 4 (January 1929): 324–325.
- Liebman, Bonnie. "Just the Mediterranean Diet Facts." *Nutrition Action Health Letter* 21, no. 10 (1994).
- Life Sciences Research Center, Federation of American Societies for Experimental Biology. Prepared for the Bureau of Foods, Food and Drug Administration. *Evaluation of the Health Aspects of Hydrogenated Soybean Oil as a Food Ingredient*. Bethesda, MD: Federation of American Societies for Experimental Biology, 1976.
- Lifshitz, Fima, and Nancy Moses. "Growth Failure. A Complication of Dietary Treatment of Hypercholesterolemia." *American Journal of Diseases of Children* 143, no. 5 (May 1989): 537–542.
- Lionis, Christos D., Antonis D. Koutis, Nikos Antonakis, Åke Isacson, Lars H. Lindholm, and Michael Fioretos. "Mortality Rates in a Cardiovascular 'Low -Risk' Population in Rural Crete." *Family Practice* 10, no. 3 (September 1993): 300–304.
- Lloyd-Jones, Donald, R. J. Adams, T. M. Brown, et al. "Heart Disease and Stroke Statistics—2010 Update: A Report from the American Heart Association." *Circulation* 121, no. 7 (February 23, 2010): 46–215.
- Lloyd-Jones, Donald, Robert Adams, Mercedes Carnethon, et al. "Heart Disease and Stroke Statistics—2009 Update: A Report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee." *Circulation* 119, no. 3 (2009): 480–486.
- De Lorgeril, Michel, Serge Renaud, P. Salen, et al. "Mediterranean Alpha-Linolenic Acid-Rich Diet in Secondary Prevention of Coronary Heart Disease." *Lancet* 343, no. 8911 (June 11, 1994): 1454–1459.
- De Lorgeril, Michael, P. Salen, E. Caillat-Vallet, M. T. Hanauer, J. C. Barthelemy, and N. Mammelle. "Control of Bias in Dietary Trial to Prevent Coronary Recurrences: The Lyon Diet Heart Study." *European Journal of Clinical Nutrition* 51, no. 2 (February 1997): 116–122.
- Lowenstein, Frank W. "Blood-pressure in Relation to Age and Sex in the Tropics and Subtropics: A Review of the Literature and an Investigation in Two Tribes of Brazil Indians." *Lancet* 277, no. 7173 (February 18, 1961): 389–392.

- . “Epidemiologic Investigations in Relation to Diet in Groups Who Show Little Atherosclerosis and Are Almost Free of Coronary Ischemic Heart Disease.” *American Journal of Clinical Nutrition* 15, no. 3 (1964): 175–186.
- LRC Study Group. “The Lipid Research Clinics Coronary Primary Prevention Trial Results. I: Reduction in Incidence of Coronary Heart Disease.” *Journal of the American Medical Association* 251, no. 3 (January 20, 1984): 351–364.
- . “The Lipid Research Clinics Coronary Primary Prevention Trial Results. II: The Relationship of Reduction in Incidence of Coronary Heart Disease to Cholesterol Lowering.” *Journal of the American Medical Association* 251, no. 3 (January 20, 1984): 365–374.
- Lund, E., and J. K. Borgan. “Cancer Mortality Among Cooks.” *Tidsskrift for Den Norske Lægeforening* 107 (1987): 2635–2637.
- Lundberg, George D. “MRFIT and the Goals of the Journal.” *Journal of the American Medical Association* 248, no. 12 (September 24, 1982): 1501.
- Mabrouk, Ahmed Fahmy, and J. B. Brown. “The Trans Fatty Acids of Margarines and Shortenings.” *Journal of the American Oil Chemists’ Society* 33, no. 3 (March 1956): 98–102.
- Mahabir, S., D. J. Baer, C. Giffen, et al. “Calorie Intake Misreporting by Diet Record and Food Frequency Questionnaire Compared to Doubly Labeled Water Among Postmenopausal Women.” *European Journal of Clinical Nutrition* 60, no. 4 (April 2005): 561–565.
- Mahfouz, Mohamedain M., T. L. Smith, and Fred A. Kummerow. “Effect of Dietary Fats on Desaturase Activities and the Biosynthesis of Fatty Acids in Rat-Liver Microsomes.” *Lipids* 19, no. 3 (March 1984): 214–222.
- Malhotra, S. L. “Geographical Aspects of Acute Myocardial Infarction in India with Special Reference to Patterns of Diet and Eating.” *British Heart Journal* 29, no. 3 (May 1967): 337–344.
- . “Epidemiology of Ischaemic Heart Disease in Southern India with Special Reference to Causation.” *British Heart Journal* 29, no. 6 (November 1967): 895–905.
- . “Dietary Factors and Ischemic Heart Disease.” *American Journal of Clinical Nutrition* 24, no. 10 (1971): 1195–1198.
- Malmros, Haqvin. “The Relation of Nutrition to Health: A Statistical Study of the Effect of the War-Time on Arteriosclerosis, Tuberculosis and Diabetes.” *Acta Medica Scandinavica Supplementum* 246 (1950): 137–153.
- Mann, George V. “Epidemiology of Coronary Heart Disease.” *American Journal of Medicine* 23, no. 3 (1957): 463–480.
- . “Diet and Coronary Heart Disease.” *Archives of Internal Medicine* 104 (1959): 921–929.
- . “Diet-Heart: End of an Era.” *New England Journal of Medicine* 297, no. 12 (September 22, 1977): 644–650.
- . “Coronary Heart Disease—the Doctor’s Dilemma.” *American Heart Journal* 96, no. 5 (November 1978): 569–571.
- . “A Short History of the Diet/Heart Hypothesis.” In *Coronary Heart Disease: The Dietary Sense and Nonsense. An Evaluation by Scientists*. Edited by George V. Mann for the Veritas Society. London: Janus, 1993, 1–17.
- Mann, George V., Georgiana Pearson, Tavia Gordon, Thomas R. Dawber, Lorna Lyell, and Dewey Shurtleff. “Diet and Cardiovascular Disease in the Framingham Study I. Mea-

- surement of Dietary Intake." *American Journal of Clinical Nutrition* 11, no. 3 (September 1962): 200–225.
- Mann, George V., R. D. Shaffer, R. S. Anderson, et al. "Cardiovascular Disease in the Masai." *Journal of Atherosclerosis Research* 4, no. 4 (1964): 289–312.
- Mann, George V., Anne Spoerry, Margarete Gary, and Debra Jarashow. "Atherosclerosis in the Masai." *American Journal of Epidemiology* 95, no. 1 (1972): 26–37.
- Mann, George V., and Fredrick J. Stare. "Nutrition and Atherosclerosis." In *Symposium on Atherosclerosis*. Publication 338. Washington, DC: National Academy of Sciences–National Research Council, 1954, 169–180.
- Marcy, Randolph B. *The Prairie Traveler: A Handbook for Overland Expeditions*. London: Trubner, 1863.
- Marmot, M. G., Sherman L. Syme, Abraham Kagan, Hiroo Kato, J. B. Cohen, and J. Belsky. "Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Prevalence of Coronary and Hypertensive Heart Disease and Associated Risk Factors." *American Journal of Epidemiology* 102, no. 6 (December 1975): 514–525.
- Massiello, F. J. "Changing Trends in Consumer Margarines." *Journal of the American Oil Chemists' Society* 55, no. 2 (February 1978): 262–265.
- Masterjohn, Chris. "The China Study by Colin T. Campbell." *Wise Traditions in Food, Farming, and the Healing Arts* 6, no. 1 (Spring 2005): 41–45.
- . "Does Carnitine from Red Meat Contribute to Heart Disease Through Intestinal Bacterial Metabolism to TMAO?" *Mother Nature Obeyed* (blog). April 10, 2013.
- Mattson, Fred H. and Scott M. Grundy. "Comparison of Effects of Dietary Saturated, Unsaturated, and Polyunsaturated Fatty Acids on Plasma Lipids and Lipoproteins in Man." *Journal of Lipid Research* 26, no. 2 (February 1985): 194–202.
- Mauer, Alvin M. "Should There Be Intervention to Alter Serum Lipids in Children?" *Annual Review of Nutrition* 11 (July 1991): 375–391.
- Mazhar, D., and J. Waxman. "Dietary Fat and Breast Cancer." *Quarterly Journal of Medicine* 99, no. 7 (2006): 469–473.
- McCarrison, Robert. *Nutrition and National Health: The Cantor Lectures*. London: Faber and Faber Limited, 1936.
- McClellan, Walter S., Virgil R. Rupp, and Vincent Toscani. "Prolonged Meat Diets with a Study of the Metabolism of Nitrogen, Calcium, and Phosphorus." *Journal of Biological Chemistry* 87, no. 3 (July 1930): 669–680.
- McCollum, Elmer Verner. *The Newer Knowledge of Nutrition*. New York: MacMillan, 1921.
- McConnell, Kenneth P. and Robert Gordon Sinclair. "Passage of Elaidic Acid Through the Placenta and Also into the Milk of the Rat." *Journal of Biological Chemistry* 118, no. 1 (1937): 123–129.
- McGill, Henry C., C. Alex McMahan, Edward E. Herderick, Gray T. Malcom, Richard E. Tracy, and Jack P. Strong. "Origin of Atherosclerosis in Childhood and Adolescence." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1307S–1315S.
- McMichael, John. "Prevention of Coronary Heart-Disease." *Lancet* 308, no. 7985 (September 11, 1976): 569.
- McOsker, Don E., Fred H. Mattson, H. Bruce Sweringen, and Albert M. Kligman. "The Influence of Partially Hydrogenated Dietary Fats on Serum Cholesterol Levels." *Journal of the American Medical Association* 180, no. 5 (May 5, 1962): 380–385.

- Meadows, Bob, M. Morehouse, and M. Simmons. "The Problem with Low-Fat Diets." *People*, February 27, 2006, 89–90.
- Meckling, Kelly A., Cairtriona O'Sullivan, and Dayna Saari. "Comparison of a Low-Fat Diet to a Low-Carbohydrate Diet on Weight Loss, Body Composition, and Risk Factors for Diabetes and Cardiovascular Disease in Free-Living, Overweight Men and Women." *Journal of Clinical Endocrinology & Metabolism* 89, no. 6 (June 2004): 2717–2723.
- Medalie, Jack H., Harold A. Kahn, Henry N. Neufeld, Egon Riss, and Uri Goldbourt. "Five-Year Myocardial Infarction Incidence—II. Association of Single Variables to Age and Birthplace." *Journal of Chronic Diseases* 26, no. 6 (1973): 329–349.
- Medical News. "Questions Surround Treatment of Children with High Cholesterol." *Journal of American Medical Association* 214, no. 10 (1970): 1783–1785.
- Menotti, Alessandro, Daan Kromhout, Henry Blackburn, Flaminio Fidanza, Ratko Buzina, and Aulikki Nissinen. "Food Intake Patterns and 25-Year Mortality from Coronary Heart Disease: Cross-Cultural Correlations in the Seven Countries Study." *European Journal of Epidemiology* 15, no. 6 (1999): 507–515.
- Mensink, Ronald P., and Martijn B. Katan. "Effect of Dietary Trans Fatty Acids on High-Density and Low-Density Lipoprotein Cholesterol Levels in Healthy Subjects." *New England Journal of Medicine* 323, no. 7 (August 16, 1990): 439–445.
- Meyer, W. H. "Dietary Fat and Cancer Trends—Further Comments." *Federation Proceedings* 38, no. 11 (November 1979): 2436–2437.
- Michaels, Leon. "Ætiology of Coronary Artery Disease: An Historical Approach." *British Heart Journal* 28, no. 2 (March 1966): 258–264.
- . *The Eighteenth-Century Origins of Angina Pectoris: Predisposing Causes, Recognition and Aftermath*, Medical History, suppl. 21. London: The Wellcome Trust Centre for the History of Medicine at UCL, 2001.
- Michels, Karin, and Frank Sacks. "Trans Fatty Acids in European Margarines." *New England Journal of Medicine* 332, no. 8 (February 23, 1995): 541–542.
- Miettinen, Matti, Martti Karvonen, Osmo Turpeinen, Reino Elosuo, and Erkki Paavilainen. "Effect of Cholesterol-Lowering Diet on Mortality from Coronary Heart-Disease and Other Causes: A Twelve-Year Clinical Trial in Men and Women." *Lancet* 300, no. 7782 (October 1972): 835–838.
- . "Effect of Diet on Coronary-Heart-Disease Mortality." *Lancet* 302, no. 7840 (1973): 1266–1267.
- Miller, Seth R., Paul I. Tarrter, Angelos E. Papatostas, Gary Slater, and Arthur H. Aufses. "Serum Cholesterol and Human Colon Cancer." *Journal of the National Cancer Institute* 67, no. 2 (August 1981): 297–300.
- Mills, Barbara K. "The Nutritionist Who Prepared the Pro-Cholesterol Report Defends It Against Critics." *People*, June 16, 1980.
- Mills, Paul K., W. Lawrence Beeson, Roland L. Phillips, and Gary E. Fraser. "Cancer Incidence Among California Seventh-Day Adventists, 1976–1982." *American Journal of Clinical Nutrition* 59, no. 5 suppl. (May 1994): 1136S–1142S.
- Minger, Denise. "The China Study." *Raw Food SOS* (blog).
- Montanari, Massimo. *The Culture of Food*. Translated by Carl Ipsen. Cambridge, MA: Wiley-Blackwell, 1996.
- Moore, Thomas J. "The Cholesterol Myth." *The Atlantic* 264, no. 3 (September 1989): 37.

- . *Heart Failure: A Critical Inquiry into American Medicine and the Revolution in Heart Care*. New York: Simon and Schuster, 1989.
- Moore, William W. *Fighting for Life: A History of the American Heart Association 1911–1975*. Dallas: American Heart Association, 1983.
- Moreno, Luis A., Antonio Sarría, Aurora Lázaro, and Manuel Bueno. “Dietary Fat Intake and Body Mass Index in Spanish Children.” *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1399S–1403S.
- Morgan, Jane B., A. C. Kimber, A. M. Redfern, and B. J. Stordy. “Healthy Eating for Infants—Mothers’ Attitudes.” *Acta Paediatrica* 84, no. 5 (May 1995): 512–515.
- Morrell, Sally Fallon and Mary Enig. “Guts and Grease: The Diet of Native Americans,” *Wise Traditions in Food, Farming and the Healing Arts* 2, no. 1 (Spring 2001): 40–47.
- Mozaffarian, Dariush. “Taking the Focus off of Saturated Fat.” Presented as part of the “Great Fat Debate” at a conference and exposition of the Academy of Nutrition and Dietetics, Boston, Massachusetts, November 8, 2010. Available from the Academy as an audio recording.
- Mozaffarian, Dariush, Martijn B. Katan, Alberto Ascherio, Meir J. Stampfer, and Walter C. Willett. “Trans Fatty Acids and Cardiovascular Disease.” *New England Journal of Medicine* 354, no. 15 (April 13, 2006): 1601–1613.
- Mulcahy, Ristead, Noel Hickey, Ian Graham, and Gilbert McKenzie. “Factors Influencing Long-Term Prognosis in Male Patients Surviving a First Coronary Attack.” *British Heart Journal* 37, no. 2 (February 1975): 158–165.
- Muldoon, Matthew F., Stephen B. Manuck, and Karen A. Matthews. “Lowering Cholesterol Concentrations and Mortality: A Quantitative Review of Primary Prevention Trials.” *British Medical Journal* 301, no. 6747 (August 11, 1990): 309–314.
- Multiple Risk Factor Intervention Trial Research Group. “Multiple Risk Factor Intervention Trial: Risk Factor Changes and Mortality Results.” *Journal of American Medicine* 248, no. 12 (September 24, 1982): 1465–1477.
- Murata, Mitsunori. “Secular Trends in Growth and Changes in Eating Patterns of Japanese Children.” *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1379S–1383S.
- Murphy, Suzanne P., and Rachel K. Johnson. “The Scientific Basis of Recent US Guidance on Sugars Intake,” *American Journal of Clinical Nutrition* 78, no. 4 (2003): 8275–8335.
- Napoli, Claudio, Christopher K. Glass, Joseph L. Witztum, Reena Deutsch, Francesco P. D’Armiento, and Wulf Palinski. “Influence of Maternal Hypercholesterolaemia During Pregnancy on Progression of Early Atherosclerotic Lesions in Childhood: Fat of Early Lesions in Children (FELIC) Study.” *Lancet* 354, no. 9186 (October 9, 1999): 1234–1241.
- Naska, Androniki, Eleni Oikonomou, Antonia Trichopoulou, Theodora Psaltopoulou, and Dimitrios Trichopoulos. “Siesta in Healthy Adults and Coronary Mortality in the General Population.” *Archives of Internal Medicine* 167, no. 3 (February 12, 2007): 296–301.
- . Author reply to “Siesta, All-Cause Mortality, and Cardiovascular Mortality: Is There a ‘Siesta’ at Adjudicating Cardiovascular Mortality?” by Sripal Bangalore, Sabrina Sawhney, and Franz H. Messerli. *Archives of Internal Medicine* 167, no. 19 (October 22, 2007): 2143–2144.

- National Cholesterol Education Program. *Third Report of the National Cholesterol Education Program (NCEP). Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults: (Adult Treatment Panel III) Final Report*. NIH Publication No. 02-5215. Washington, DC: NIH, 2002.
- National Diet-Heart Study Research Group. "The National Diet Heart Study Final Report." *American Heart Association Monograph* 18 in *Circulation* 37 and 38, suppl. 1 (March 1968): I-ix-I-428.
- National Institutes of Health. "Lowering Blood Cholesterol to Prevent Heart Disease." *NIH Consensus Statement* 5, no. 7 (December 10–12, 1984): 1–11.
- National Research Council, Division of Medical Sciences. *Symposium on Atherosclerosis*. Publication 338. Washington, DC: National Academy of Sciences–National Research Council, March, 1954.
- National Toxicology Program, US Public Health Service, US Department of Health and Human Services. "Report on Carcinogens: 12th Edition." Washington, DC: US Government Printing Office, 2011.
- Negre-Salvayre, Anne, Nathalie Auge, Victoria Ayala, et al. "Pathological Aspects of Lipid Peroxidation." *Free Radical Research* 44, no. 10 (October 2010): 1125–1171.
- Ness, Andy R., J. Hughes, P. C. Elwood, E. Whitley, G. D. Smith, and M. L. Burr. "The Long-Term Effect of Dietary Advice in Men with Coronary Disease: Follow-Up of the Diet and Reinfarction Trial (DART)." *European Journal of Clinical Nutrition* 56, no. 6 (June 2002): 512–518.
- Nestel, Paul J., and Andrea Poyser. "Changes in Cholesterol Synthesis and Excretion When Cholesterol Intake Is Increased." *Metabolism* 25, no. 12 (December 1976): 1591–1599.
- Nestle, Marion. "Mediterranean Diets: Historical and Research Overview." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1313S–1320S.
- . "The Mediterranean (Diet and Disease Prevention)." In *Cambridge World History of Food* 2. Edited by Kenneth Kiple and Kriemhild Coneè Ornelas. Cambridge, England: Cambridge University Press, 2000, 1193–1203.
- . *Food Politics*. Berkeley, CA: University of California Press, 2002.
- Nestle, Marion, ed. "Mediterranean Diets." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (1995): ix–1427S.
- Newcombe, W. W., Jr. *The Indians of Texas: From Prehistoric to Modern Times*. Austin: University of Texas Press, 1961.
- Nicklas, Theresa A., Larry S. Webber, MaryLynn Koschak, and Gerald S. Berenson. "Nutrient Adequacy of Low Fat Intakes for Children: The Bogalusa Heart Study." *Pediatrics* 89, no. 2 (February 1, 1992): 221–228.
- Niinikoski, Harri, Hanna Lagström, Eero Jokinen, et al. "Impact of Repeated Dietary Counseling Between Infancy and 14 Years of Age on Dietary Intakes and Serum Lipids and Lipoproteins: The STRIP Study." *Circulation* 116, no. 9 (August 13, 2007): 1032–1040.
- Niinikoski, Harri, Jorma Viikari, Tapani Rönnemaa, et al. "Regulation of Growth of 7- to 36-Month-Old Children by Energy and Fat Intake in the Prospective, Randomized STRIP Baby Trial." *Pediatrics* 100, no. 5 (November 1997): 810–816.
- Noakes, Tim D. "The Women's Health Initiative Randomized Controlled Dietary Modification Trial: An Inconvenient Finding and the Diet-Heart Hypothesis." *South African Medical Journal* 103, no. 11 (September 30, 2013): 824–825.

- Nordmann, Alain J., Katja Suter-Zimmermann, Heiner C. Bucher, et al. "Meta-Analysis Comparing Mediterranean to Low-Fat Diets for Modification of Cardiovascular Risk Factors." *American Journal of Medicine* 124, no. 9 (September 2011): 841–851.
- Nydegger, Uris E., and René E. Butler. "Serum Lipoprotein Levels in Patients with Cancer." *Cancer Research* 32, no. 8 (August 1972): 1756–1760.
- Obarzanek, Eva, Sally A. Hunsberger, Linda Van Horn, et al. "Safety of a Fat-Reduced Diet: The Dietary Intervention Study in Children (DISC)." *Pediatrics* 100, no. 1 (July 1997): 51–59.
- Obarzanek, Eva, Frank M. Sacks, William M. Vollmer, et al. "Effects on Blood Lipids of a Blood Pressure-Lowering Diet: The Dietary Approaches to Stop Hypertension (DASH) Trial." *American Journal of Clinical Nutrition* 74, no. 1 (2001): 80–89.
- O'Brien, Patrick. "Dietary Shifts and Implications for US Agriculture." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (1995): 1390S–1396S.
- Office of the Surgeon General, US Public Health Service, US Department of Health and Human Services. "Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention." Docket number 79-55071, Washington DC: US Government Printing Office, 1979.
- Ohfuji, Takehi Ko, and Takashi Kaneda. "Characterization of Toxic Components in Thermally Oxidized Oil." *Lipids* 8 (1973): 353–359.
- Oliver, Michael Francis. "Ischaemic Heart Disease: A Secondary Prevention Trial Using Clofibrate." *Pharmacological Control of Lipid Metabolism* 26 (1972): 255–259.
- . "Dietary Cholesterol, Plasma Cholesterol and Coronary Heart Disease." *British Heart Journal* 38, no. 3 (March 1976): 214–218.
- . "It Is More Important to Increase the Intake of Unsaturated Fats than to Decrease the Intake of Saturated Fats: Evidence from Clinical Trials Relating to Ischemic Heart Disease." *American Journal of Clinical Nutrition* 66, no. 4 suppl. (October 1997): 980S–986S.
- Opie, Lionel H. "Letter to the Editor: Mediterranean Diet for the Primary Prevention of Heart Disease." *New England Journal of Medicine* 369, no. 7 (August 15, 2013): 672–673.
- Orchard, Trevor J., Richard P. Donahue, Lewis H. Kuller, Patrick N. Hodge, and Allan L. Drash. "Cholesterol Screening in Childhood: Does It Predict Adult Hypercholesterolemia? The Beaver County Experience." *Journal of Pediatrics* 103, no. 5 (November 1983): 687–691.
- Ornish, Dean, Shirley E. Brown, J. H. Billings, et al. "Can Lifestyle Changes Reverse Coronary Heart Disease? The Lifestyle Heart Trial." *Lancet* 336, no. 8708 (July 21, 1990): 129–133.
- Ornish, Dean, Larry W. Scherwitz, Rachelle S. Doody, et al. "Effects of Stress Management Training and Dietary Changes in Treating Ischemic Heart Disease." *Journal of the American Medical Association* 249, no. 1 (January 7, 1983): 54–59.
- Ornish, Dean, Larry W. Scherwitz, James H. Billings, et al. "Intensive Lifestyle Changes for Reversal of Coronary Heart Disease." *Journal of the American Medical Association* 280, no. 23 (December 16, 1998): 2001–2007.
- Orr, John B., and John L. Gilks. *Studies of Nutrition: The Physique and Health of Two African Tribes*. Medical Research Council. Special Report Series. No. 155. London: Stationery Office, 1931.

- Osler, William. *The Principles and Practice of Medicine*. 1892. Reprint, RareBooksClub.com, 2012.
- Ozonoff, David. "The Political Economy of Cancer Research." *Science and Nature* 2 (1979): 14–16.
- Page, Irvine H., Edgar V. Allen, Francis L. Chamberlain, Ancel Keys, Jeremiah Stamler, and Fredrick J. Stare. "Dietary Fat and Its Relation to Heart Attacks and Strokes." *Circulation* 23, no. 1 (1961): 133–136.
- Page, Irvine H., Fredrick J. Stare, A. C. Corcoran, Herbert Pollack, and Charles F. Wilkinson. "Atherosclerosis and the Fat Content of the Diet." *Circulation* 16, no. 2 (August 1957): 163–178.
- Pagoto, Sherry L., and Bradley M. Appelhans. "A Call for an End to the Diet Debates." *Journal of the American Medical Association* 310, no. 7 (2013): 687–688.
- Palmieri, Luigi, Kathleen Bennett, Simona Giampaoli, and Simon Capewell. "Explaining the Decrease in Coronary Heart Disease Mortality in Italy between 1980 and 2000." *American Journal of Public Health* 100, no. 4 (April 2010): 684–692.
- Pan, An, Qi Sun, Adam M. Bernstein, et al. "Red Meat Consumption and Mortality: Results from 2 Prospective Cohort Studies." *Archives of Internal Medicine* 172, no. 7 (April 9, 2012): 555–563.
- Park, Youngmee K., and Elizabeth A. Yetley. "Trench Changes in Use and Current Intakes of Tropical Oils in the United States." *American Journal of Clinical Nutrition* 51, no. 5 (1990): 738–748.
- Patek, Arthur J., Forrest E. Kendall, Nancy M. deFritsch, and Robert L. Hirsch. "Cirrhosis-Enhancing Effect of Corn Oil." *Archives of Pathology* 82, no. 6 (December 1966): 596–601.
- Patel, Sanjay R. "Is Siesta More Beneficial than Nocturnal Sleep?" *Archives of Internal Medicine* 167, no. 19 (October 22, 2007): 2143–2144.
- Pearce, Morton Lee, and Seymour Dayton. "Incidence of Cancer in Men on a Diet High in Polyunsaturated Fat." *Lancet* 297, no. 7697 (March 6, 1971): 464–467.
- Pennington, Alfred W. "Obesity in Industry: The Problem and Its Solution." *Industrial Medicine & Surgery* 18, no. 6 (June 1949): 259.
- . "Obesity." *Medical Times* 80, no. 7 (July 1952): 389–398.
- . "An Alternate Approach to the Problem of Obesity." *American Journal of Clinical Nutrition* 1, no. 2 (1953): 100–106.
- . "A Reorientation on Obesity." *New England Journal of Medicine* 248, no. 23 (June 4, 1953): 959–964.
- . "Treatment of Obesity with Calorically Unrestricted Diets." *Journal of Clinical Nutrition* 1, no. 5 (July–August 1953): 343–348.
- . "Obesity: Overnutrition or Disease of Metabolism?" *American Journal of Digestive Diseases* 20, no. 9 (September 1953): 268–274.
- . "Treatment of Obesity: Developments of the Past 150 Years." *American Journal of Digestive Diseases* 21, no. 3 (March 1954): 65–69.
- Pernetti, Mimma, Kees van Malssen, Daniel Kalnin, and Eckhard Flöter. "Structuring Edible Oil with Lecithin and Sorbitan Tri-Stearate." *Food Hydrocolloids* 21, nos. 5–6 (July–August 2007): 855–861.

- Phillips, Roland L., Frank R. Lemon, W. Lawrence Beeson, and Jan W. Kuzma. "Coronary Heart Disease Mortality Among Seventh-Day Adventists with Differing Dietary Habits: A Preliminary Report." *American Journal of Clinical Nutrition* 31, no. 10 suppl. (October 1978): S191–S198.
- Pinney, Stephen D., Bruce R. Bistrian, W. J. Evans, E. Gervino, and G. L. Blackburn. "The Human Metabolic Response to Chronic Ketosis Without Caloric Restriction: Preservation of Submaximal Exercise Capability Without Reduced Carbohydrate Oxidation." *Metabolism* 32, no. 8 (August 1983): 769–776.
- Pinney, Stephen D., Bruce R. Bistrian, R. R. Wolfe, and G. L. Blackburn. "The Human Metabolic Response to Chronic Ketosis Without Caloric Restriction: Physical and Biochemical Adaptation." *Metabolism* 32, no. 8 (August 1983): 757–768.
- Pinney, Stephen D., and Jeff S. Volek. *New Atkins for a New You: The Ultimate Diet for Shedding Weight and Feeling Great*. New York: Touchstone, 2010.
- Pinney, Stephen D., James A. Wortman, and Douglas Bibus. "Oolichan Grease: A Unique Marine Lipid and Dietary Staple of the North Pacific Coast." *Lipids* 44, no. 1 (January 2009): 47–51.
- Pickat, A. K. "The Nutritive Value of Margarine and Soy Bean-Oil." *Voprosy Pitaniia* 2, no. 5 (1933): 34–60.
- Pinckney, Edward R., and Cathey Pinckney. *The Cholesterol Controversy*. Los Angeles: Sherbourne Press, 1973.
- Plourde, Mélanie, and Stephen C. Cunnane. "Extremely Limited Synthesis of Long Chain Polyunsaturates in Adults: Implications for Their Dietary Essentiality and Use as Supplements." *Applied Physiology, Nutrition and Metabolism* 32, no. 4 (August 2007): 619–634.
- Plumb, Robert K. "Diet Linked to Cut in Heart Attacks." *New York Times*, May 17, 1962, 39.
- Poli, Giuseppi, and Rudolph Jörg Schaur. "4-Hydroxynonenal: A Lipid Degradation Product Provided with Cell Regulatory Functions." *Molecular Aspects of Medicine* 24, nos. 4–5 suppl. (August–October 2003): 147–313.
- Poli, Giuseppi, Rudolph Jörg Schaur, W. G. Sterns, and G. Leonarduzzi. "4-Hydroxynonenal: A Membrane Lipid Oxidation Product of Medicinal Interest." *Medicinal Research Reviews* 28, no. 4 (July 2008): 569–631.
- Popper, Karl. *Objective Knowledge: An Evolutionary Approach*. Revised edition. Oxford: Clarendon Press, 1979.
- Porter, Eugene O. "Oleomargarine: Pattern for State Trade Barriers." *Southwestern Social Science Quarterly* 29 (1948): 38–48.
- Poustie, Vanessa J., and Patricia Rutherford. "Dietary Treatment for Familial Hypercholesterolaemia." *Cochrane Database of Systematic Reviews*, no. 2 (2001): CD001918.
- Powley, Terry L. "The Ventromedial Hypothalamic Syndrome, Satiety and a Cephalic Phase Hypothesis." *Psychological Review* 84, no. 1 (1977): 89–126.
- Prentice, Andrew M., and Alison A. Paul. "Fat and Energy Needs of Children in Developing Countries." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1253s–1265s.
- Prentice, George. "Cancer Among Negroes." *British Medical Journal* 2, no. 3285 (December 15, 1923): 1181.
- Prentice, Ross L., Bette Caan, Rowan T. Chlebowski, et al. "Low-Fat Dietary Pattern and Risk of Invasive Breast Cancer: The Women's Health Initiative Randomized Controlled

- Dietary Modification Trial." *Journal of the American Medical Association* 295, no. 6 (February 8, 2006): 629–642.
- Prentice, Ross L., Cynthia A. Thomson, Bette Caan, et al. "Low-Fat Dietary Pattern and Cancer Incidence in the Women's Health Initiative Dietary Modification Randomized Controlled Trial." *Journal of the National Cancer Institute* 99, no. 20 (October 17, 2007): 1534–1543.
- Price, Weston A. *Nutrition and Physical Degeneration*. 1939. Reprinted. La Mesa, CA: The Price-Pottenger Nutrition Foundation, 2004.
- Prior, Ian A., Flora Davidson, Clare E. Salmond, and Z. Czochanska. "Cholesterol, Coconuts, and Diet on Polynesian Atolls: A Natural Experiment: The Pukapuka and Tokelau Island Studies." *American Journal of Clinical Nutrition* 34, no. 8 (August 1981): 1552–1561.
- The Procter & Gamble Company. "The Story of Crisco." In *The Story of Crisco: 250 Tested Recipes*, by Marion Harris Neil. Cincinnati, OH: Procter & Gamble, 1914, 5–17.
- Psaltopoulou, Theodora, Androniki Naska, Philoppos Orfanos, Dimitrios Trichopoulos, Theodoros Mountokalakis, and Antonia Trichopoulou. "Olive Oil, the Mediterranean Diet, and Arterial Blood Pressure: The Greek European Prospective Investigation into Cancer and Nutrition (EPIC) Study." *American Journal of Clinical Nutrition* 80, no. 4 (October 1, 2004): 1012–1018.
- Qintão, Eder, Scott Grundy, and Edward H. Ahrens, Jr. "Effects of Dietary Cholesterol on the Regulation of Total Body Cholesterol in Man." *Journal of Lipid Research* 12, no. 2 (March 1971): 233–247.
- Ramsden, Christopher E., Joseph R. Hibbeln, Sharon F. Majchrzak, and John M. Davis. "N-6 Fatty Acid-Specific and Mixed Polyunsaturate Dietary Interventions Have Different Effects on CHD Risk: A Meta-Analysis of Randomised Controlled Trials." *British Journal of Nutrition* 104, no. 11 (December 2010): 1586–1600.
- Ramsden, Christopher E., Daisy Zamora, Boonseng Leelarthae-pin, et al. "Use of Dietary Linoleic Acid for Secondary Prevention of Coronary Heart Disease and Death: Evaluation of Recovered Data from the Sydney Diet Heart Study and Updated Meta-Analysis." *British Medical Journal* 346 (February 4, 2013): doi:10.1136/bmj.e8707.
- Rand, Margaret L., Adje A. Hennissen, and Gerard Hornstra. "Effects of Dietary Palm Oil on Arterial Thrombosis, Platelet Responses and Platelet Membrane Fluidity in Rats." *Lipids* 23, no. 11 (November 1988): 1019–1023.
- Rauch B., R. Schiele, S. Schneider, et al. "OMEGA, a Randomized, Placebo Controlled Trial to Test the Effect of Highly Purified Omega-3 Fatty Acids on Top of Modern Guideline-Adjusted Therapy After Myocardial Infarction." *Circulation* 122, no. 21 (November 23, 2010): 2152–2159.
- Ravnskov, Uffe. *The Cholesterol Myths: Exposing the Fallacy that Saturated Fat and Cholesterol Cause Heart Disease*. Washington, DC: New Trends, 2000.
- Ray, Kausik K., Sreenivasa Rao Kondapally Seshasai, Sebhat Erqou, et al. "Statins and All-Cause Mortality in High-Risk Primary Prevention: A Meta-Analysis of 11 Randomized Controlled Trials Involving 65,229 Participants." *Archives of Internal Medicine* 170, no. 12 (June 28, 2010): 1024–1031.
- Reeves, Robert M. Letter to the Editor. "Effect of Dietary Trans Fatty Acids on Cholesterol Levels." *New England Journal of Medicine* 324, no. 5 (January 31, 1991): 338–340.
- . Presentation at a conference hosted by the Institute of Shortening and Edible Oils, Las Vegas, August 2007.

- Reid, D. D., and G. A. Rose. "Preliminary Communications: Assessing the Comparability of Mortality Statistics." *British Medical Journal* 2, no. 5422 (December 5, 1964): 1437–1439.
- Reiser, Raymond. "Saturated Fat in the Diet and Serum Cholesterol Concentration: A Critical Examination of the Literature." *American Journal of Clinical Nutrition* 26, no. 5 (May 1973): 524–555.
- . "Saturated Fat: A Rebuttal." *American Journal of Clinical Nutrition* 27, no. 3 (March 1974): 228–229.
- Research Committee. "Low-Fat Diet in Myocardial Infarction: A Controlled Trial." *Lancet* 2, no. 7411 (September 11, 1965): 501–504.
- Riepma, S. F. *The Story of Margarine*. Washington, DC: Public Affairs Press, 1970.
- Rillamas-Sun, Eileen, Andrea Z. LaCroix, Molly E. Warring, et al. "Obesity and Late-Age Survival Without Major Disease or Disability in Older Women." *Journal of the American Medical Association, Internal Medicine* 174, no. 1 (January 2014): 98–106.
- Rittenberg, D., and Rudolf Schoenheimer. "Deuterium as an Indicator in the Study of Intermediary Metabolism: XI. Further Studies on the Biological Uptake of Deuterium into Organic Substances, with Special Reference to Fat and Cholesterol Formation." *Journal of Biological Chemistry* 121, no. 1 (October 1, 1937): 235–253.
- Rivellese, Angela A., Rosalba Giacco, Giovanni Annuzzi, et al. "Effects of Monounsaturated vs. Saturated Fat on Postprandial Lipemia and Adipose Tissue Lipases in Type 2 Diabetics." *Clinical Nutrition* 27, no. 1 (February 2008): 133–141.
- Robe, Karl. "Focus Gets Clearer on Confused Food Oil Picture." *Food Processing*, December 1961, 62–68.
- Roberts, T. L., D. A. Wood, R. A. Riemersma, P. J. Gallagher, and Fiona C. Lampe. "Trans Isomers of Oleic and Linoleic Acids in Adipose Tissue and Sudden Cardiac Death." *Lancet* 345, no. 8945 (February 4, 1995): 278–282.
- Rogers, Adrienne E., and Matthew P. Longnecker. "Biology of Disease: Dietary and Nutritional Influences on Cancer—A Review of Epidemiological and Experimental Data." *Laboratory Investigation* 59, no. 6 (1988): 729–759.
- Rony, H. R. *Obesity and Leanness*. Philadelphia: Lea and Febiger, 1940.
- Root, Waverley, and Richard De Rochemont. *Eating in America: A History*. New York: Morrow, 1976.
- Rosamond, Wayne D., Lloyd E. Chambless, Aaron R. Folsom, et al. "Trends in the Incidence of Myocardial Infarction and in Mortality Due to Coronary Heart Disease, 1987 to 1994." *New England Journal of Medicine* 339, no. 13 (September 24, 1998): 861–867.
- Rose, Geoffrey, Henry Blackburn, Ancel Keys, et al. "Colon Cancer and Blood-Cholesterol." *Lancet* 303, no. 7850 (February 9, 1974): 181–183.
- Rose, Geoffrey, W. B. Thompson, and R. T. Williams. "Corn Oil in Treatment of Ischaemic Heart Disease." *British Medical Journal* 1, no. 5449 (June 12, 1965): 1531–1533.
- Ross, Russell. "The Pathogenesis of Atherosclerosis—An Update." *New England Journal of Medicine* 314, no. 8 (February 20, 1986): 488–500.
- Rothstein, William G. *Public Health and the Risk Factor: A History of an Uneven Medical Revolution*. Rochester Studies in Medical History 3. Rochester, NY: University of Rochester Press, 2003.

- Rouja, Philippe Max, Éric Dewailly, and Carole Blanchet. "Fat, Fishing Patterns, and Health Among the Bardi People of North Western Australia." *Lipids* 38, no. 4 (April 2003): 399–405.
- Roussouw, Jacques E., Loretta Finnegan, William R. Harlan, Vivian W. Pinn, Carolyn Clifford, and Joan A. McGowan. "The Evolution of the Women's Health Initiative: Perspectives from the NIH." *Journal of the American Medical Women's Association* 50, no. 2 (March/April 1995): 50–55.
- Rubba, Paolo, F. Mancini, M. Gentile, and M. Mancini. "The Mediterranean Diet in Italy: An Update." *World Review of Nutrition and Dietetics* 97 (2007): 85–113.
- Ruiz-Canela, Miguel, and Miguel A. Martínez-González. "Olive Oil in the Primary Prevention of Cardiovascular Disease." *Maturitas* 68, no. 3 (March 2011): 245–250.
- Sacks, Frank M., George A. Bray, Vincent J. Carey, et al. "Comparison of Weight-Loss Diets with Different Compositions of Fat, Protein, and Carbohydrates." *New England Journal of Medicine* 360, no. 9 (February 26, 2009): 859–873.
- Sacks, Frank M., and Lisa Litlin. "Trans-Fatty-Acid Content of Common Foods." *New England Journal of Medicine* 329, no. 26 (December 23, 1993): 1969–1970.
- Samaha, Frederick F., Nayyar Iqbal, Prakash Seshadri, et al. "A Low-Carbohydrate as Compared with a Low-Fat Diet in Severe Obesity." *New England Journal of Medicine* 348, no. 21 (May 22, 2003): 2074–2081.
- Samuel, Paul, Donald J. McNamara, and Joseph Shapiro. "The Role of Diet in the Etiology and Treatment of Atherosclerosis." *Annual Review of Medicine* 34, no. 1 (1983): 179–194.
- Sarri, Katerina, and Anthony Kafatos. Letter to the Editor. "The Seven Countries Study in Crete: Olive Oil, Mediterranean Diet or Fasting?" *Public Health Nutrition* 8, no. 6 (2005): 666.
- Sarri, Katerina, Manolis K. Linardakis, Frosso N. Bervanaki, Nikolaos E. Tzanakis, and Anthony G. Kafatos. "Greek Orthodox Fasting Rituals: A Hidden Characteristic of the Mediterranean Diet of Crete." *British Journal of Nutrition* 92, no. 2 (2004): 277–284.
- Schaefer, Ernst J., Joi L. Augustin, Mary M. Schaefer, et al. "Lack of Efficacy of a Food-frequency Questionnaire in Assessing Dietary Macronutrient Intakes in Subjects Consuming Diets of Known Composition." *American Journal of Clinical Nutrition* 71, no. 3 (March 2000): 746–751.
- Schaefer, Otto. "Medical Observations and Problems in the Canadian Arctic: Part II." *Canadian Medical Association Journal* 81, no. 5 (September 1, 1959): 386–393.
- . "Glycosuria and Diabetes Mellitus in Canadian Eskimos: A Preliminary Report and Hypothesis." *Canadian Medical Association Journal* 99, no. 5 (August 3, 1968): 201–206.
- . "When the Eskimo Comes to Town." *Nutrition Today* 6, no. 6 (November–December 1971): 8–16.
- Schatzkin, Arthur, Peter Greenwald, David P. Byar, and Carolyn K. Clifford. "The Dietary Fat–Breast Cancer Hypothesis Is Alive." *Journal of the American Medical Association* 261, no. 22 (June 9, 1989): 3284–3287.
- Schatzkin, Arthur, Victor Kipnis, Raymond J. Carroll, et al. "A Comparison of a Food Frequency Questionnaire with a 24-hour Recall for Use in an Epidemiological Cohort Study: Results from the Biomarker-based Observing Protein and Energy Nutrition (OPEN) Study." *International Journal of Epidemiology* 32, no. 6 (December 2003): 1054–1062.

- Schettler, Gotthard. "Atherosclerosis During Periods of Food Deprivation Following World Wars I and II." *Preventive Medicine* 12, no. 1 (1983): 75–83.
- Schleifer, David. "Reforming Food: How Trans Fats Entered and Exited the American Food System." PhD dissertation. New York University, 2010.
- . "The Perfect Solution: How Trans Fats Became the Healthy Replacement for Saturated Fats." *Technology and Culture* 53, no. 1 (January 2012): 94–119.
- Schwarzfuchs, Dan, Rachel Golan, and Iris Shai. Letter to the Editor. "Four-Year Follow-Up After Two-Year Dietary Interventions." *New England Journal of Medicine* 367, no. 14 (October 4, 2012): 1373–1374.
- Seinfeld, Jerry. *I'm Telling You for the Last Time*. Broadhurst Theatre, New York, NY, August 6–9, 1998.
- Seiz, Keith. *Dietary Goals for the United States*, Ninety-Fifth Congress (Washington, DC: US Government Printing Office, 1977).
- . "Formulations: Sourcing Ideal Trans-Free Oils." *Functional Foods & Nutraceuticals* (July 2005): 36–37.
- Seltzer, Carl C. "The Framingham Heart Study Shows No Increases in Coronary Heart Disease Rates from Cholesterol Values of 205–264 mg/dL." *Giornale Italiano di Cardiologia* (Padua) 21, no. 6 (1991): 683.
- Senti, Frederic R., ed. Prepared for the Center for Food Safety and Applied Nutrition, Food and Drug Administration. *Health Aspects of Dietary Trans-Fatty Acids*. Bethesda, MD: Life Sciences Research Office, Federation of American Societies for Experimental Biology, August 1985.
- Seppanen, C. M., and A. Saari Csallany. "Simultaneous Determination of Lipophilic Aldehydes by High-Performance Liquid Chromatography in Vegetable Oil." *Journal of the American Oil Chemists' Society* 78, no. 12 (December 1, 2001): 1253–1260.
- . "Formation of 4-Hydroxynonenal, a Toxic Aldehyde, in Soybean Oil at Frying Temperature." *Journal of the American Oil Chemists' Society* 79, no. 10 (October 1, 2002): 1033–1038.
- Serra-Majem, Lluís, J. Ngo de la Cruz, L. Ribas, and L. Salleras. "Mediterranean Diet and Health: Is All the Secret in Olive Oil?" *Pathophysiology of Haemostasis and Thrombosis* 33, nos. 5–6 (September–December 2003/2004): 461–465.
- Serra-Majem, Lluís, Lourdes Ribas, Ricard Tresserras, Joy Ngo, and Lluís Salleras. "How Could Changes in Diet Explain Changes in Coronary Heart Disease Mortality in Spain? The Spanish Paradox." *American Journal of Clinical Nutrition* 61, no. 6 suppl. (June 1995): 1351S–1359S.
- Serra-Majem, Lluís, Blanca Roman, and Ramón Estruch. "Scientific Evidence of Interventions Using the Mediterranean Diet: A Systematic Review." *Nutritional Reviews* 64, no. 2 (February 2006): S27–S47.
- Serra-Majem, Lluís, Antonia Trichopoulou, Joy Ngo de la Cruz, et al. "Does the Definition of the Mediterranean Diet Need to be Updated?" *Public Health Nutrition* 7, no. 7 (October 2004): 927–929.
- Shai, Iris, Dan Schwarzfuchs, Yaakov Henkin, et al. "Weight Loss with a Low-Carbohydrate, Mediterranean, or Low-Fat Diet." *New England Journal of Medicine* 359, no. 3 (July 17, 2008): 229–241.

- Shaper, A. Gerald. "Cardiovascular Studies in the Samburu Tribe of Northern Kenya." *American Heart Journal* 63, no. 4 (April 1962): 437–442.
- . Interview with Henry Blackburn. In "Preventing Heart Attack and Stroke: A History of Cardiovascular Disease Epidemiology," last accessed February 14, 2014. <http://www.epi.umn.edu/cvdepi/interview.asp?id=64>.
- Sharman, Matthew J., Ana L. Gómez, William J. Kraemer, and Jeff S. Volek. "Very Low-Carbohydrate and Low-Fat Diets Affect Fasting Lipids and Postprandial Lipemia Differently in Overweight Men." *Journal of Nutrition* 134, no. 4 (April 1, 2004): 880–885.
- Shaten, Barbara J., Lewis H. Kuller, Marcus O. Kjelsberg, et al. "Lung Cancer Mortality After 16 Years in MRFIT Participants in Intervention and Usual-Care Groups." *Annals of Epidemiology* 7, no. 2 (February 1997): 125–136.
- Shekelle, Richard B., Anne MacMillan Shryock, Oglesby Paul, et al. "Diet, Serum Cholesterol, and Death from Coronary Heart Disease: The Western Electric Study." *New England Journal of Medicine* 304, no. 2 (January 8, 1981): 65–70.
- Shekelle, Richard, and Salim Yusuf. "Report of the Conference on Low Blood Cholesterol: Mortality Associations." *Circulation* 86, no. 3 (1992): 1046–1060.
- Shi, Z., X. Hu, B. Yuan, G. Hu, X. Pan, Y. Dai, J. E. Byles, and G. Holmboe-Ottesen. "Vegetable-Rich Food Pattern Is Related to Obesity in China." *International Journal of Obesity* 32, no. 6 (2008): 975–984.
- Shields, David S. "Prospecting for Oil." *Gastronomica* 10, no. 4 (2010): 25–34.
- Shin, Ju Young, Jerry Suls, and René Martin. "Are Cholesterol and Depression Inversely Related? A Meta-Analysis of the Association Between Two Cardiac Risk Factors." *Annals of Behavioral Medicine* 36, no. 1 (August 2008): 33–43.
- Siampos, George S. *Recent Population Change Calling for Policy Action: With Special Reference to Fertility and Migration*. Athens: National Statistical Service of Greece, 1980.
- Sieri, Sabina, Vittorio Krogh, Pietro Ferrari, et al. "Dietary Fat and Breast Cancer Risk in the European Prospective Investigation into Cancer and Nutrition." *American Journal of Clinical Nutrition* 88, no. 5 (November 2008): 1304–1312.
- Silverman, Anna, Rajni Banthia, Ivette S. Estay, Colleen Kemp, et al. "The Effectiveness and Efficacy of an Intensive Cardiac Rehabilitation Program in 24 Sites." *American Journal of Health Promotion* 24, no. 4 (2010): 260–266.
- Silwood, Christopher J. L., and Martin C. Grootveld. "Application of High-Resolution, Two-Dimensional H and C Nuclear Magnetic Resonance Techniques to the Characterization of Lipid Oxidation Products in Autoxidized Linoleoyl Linolenoylglycerols." *Lipids* 34, no. 7 (July 1999): 741–756.
- Simell, Olli, Harri Niinikoski, Tapani Rönnemaa, et al. "Special Turku Coronary Risk Factor Intervention Project for Babies (STRIP)." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1316S–1331S.
- Simons, Leon A., Yechiel Friedlander, John McCallum, and Judith Simons. "Risk Factors for Coronary Heart Disease in the Prospective Dubbo Study of Australian Elderly." *Atherosclerosis* 117, no. 1 (1995): 107–118.
- Sinclair, Hugh M. "The Diet of Canadian Indians and Eskimos." *Proceedings of the Nutrition Society* 12, no. 1 (1953): 74.

- Singh, Ram B., Shanti S. Rastogi, Rakesh Verma, Laxmi Bolaki, and Reema Singh. "An Indian Experiment with Nutritional Modulation in Acute Myocardial Infarction." *American Journal of Cardiology* 69, no. 9 (April 1, 1992): 879–885.
- Singh, Ram B., Shanti S. Rastogi, Rakesh Verma, L. Bolaki, Reema Singh, S. Ghosh, and Mohammad A. Niaz. "Randomised Controlled Trial of Cardioprotective Diet in Patients with Recent Acute Myocardial Infarction: Results of One Year Follow Up." *British Medical Journal* 304, no. 6833 (April 18, 1992): 1015–1019.
- Siri-Tarino, Patty W., Qi Sun, Frank B. Hu, and Ronald M. Krauss. "Saturated Fat, Carbohydrate, and Cardiovascular Disease." *American Journal of Clinical Nutrition* 91, no. 3 (March 2010): 502–509.
- Slining, Meghan M., Kevin C. Mathias, and Barry M. Popkin. "Trends in Food and Beverage Sources among US Children and Adolescents: 1989–2010." *Journal of the Academy of Nutrition and Dietetics* 113, no. 12 (December 2013): 1683–1694.
- Smith, Jane, and Fiona Godlee. "Investigating Allegations of Scientific Misconduct." *British Medical Journal* 331, no. 7511 (July 30, 2005): 245–246.
- Smith, Leland L. "The Autoxidation of Cholesterol." In *Autoxidation in Food and Biological Systems*. Edited by Michael G. Simic and Marcus Karel. New York: Springer Science+Business Media, 1980, 119–132.
- Smith, Russell Lesley, and Edward Robert Pinckney. *Diet, Blood Cholesterol, and Coronary Heart Disease: A Critical Review of the Literature*. Santa Monica, CA: privately published, July 1988.
- Soman, C. R. "Correspondence: Indo-Mediterranean Diet and Progression of Coronary Artery Disease." *Lancet* 366, no. 9483 (July 30, 2005): 365–366.
- Spencer, Colin. *Vegetarianism: A History*. London: Grub Street, 2000.
- Speth, John D. *Bison Kills and Bone Counts: Decision Making by Ancient Hunters*. Chicago: University of Chicago Press, 1983.
- Squires, Sally. "Hearts and Minds." *Washington Post*, July 24, 2001.
- Stamler, Jeremiah. "Diet-Heart: A Problematic Revisit." *American Journal of Clinical Nutrition* 91, no. 3 (March 2010): 497–499.
- Stamler, Jeremiah, and Frederick H. Epstein. "Coronary Heart Disease: Risk Factors as Guides to Preventive Action." *Preventive Medicine* 1, no. 1 (1972): 27–48.
- Staprans, Ilona, Xian-Mang Pan, Joseph H. Rapp, Carl Grunfeld, and Kenneth R. Feingold. "Oxidized Cholesterol in the Diet Accelerates the Development of Atherosclerosis in LDL Receptor- and Apolipoprotein E–Deficient Mice." *Journal of Arteriosclerosis, Thrombosis, and Vascular Biology* 20, no. 3 (March 2000): 708–714.
- Stearns, Peter N. *Fat History: Bodies and Beauty in the Modern West*. New York: New York University Press, 1997.
- Stefanick, Marcia L., Sally Mackey, Mary Sheehan, Nancy Ellsworth, William L. Haskell, and Peter D. Wood. "Effects of Diet and Exercise in Men and Postmenopausal Women with Low Levels of HDL Cholesterol and High Levels of LDL Cholesterol." *New England Journal of Medicine* 339, no. 1 (July 2, 1998): 12–20.
- Stefansson, Vilhjalmur. *The Fat of the Land*. Enlarged Edition of *Not By Bread Alone*, first published in 1946. New York: Macmillan, 1956.
- . *The Friendly Arctic: The Story of Five Years in Polar Regions*. New edition (First edition: New York: MacMillan, 1921). New York: Greenwood Press, 1969.

- Stehbens, William E., and Elli Wierzbicki. "The Relationship of Hypercholesterolemia to Atherosclerosis with Particular Emphasis on Familial Hypercholesterolemia, Diabetes Mellitus, Obstructive Jaundice, Myxedema, and the Nephrotic Syndrome." *Progress in Cardiovascular Diseases* 30, no. 4 (January–February 1988): 289–306.
- Stein, Joel. "The Low-Carb Diet Craze." *Time*, November 1, 1999.
- Steinberg, Daniel. "An Interpretive History of the Cholesterol Controversy: Part 1." *Journal of Lipid Research* 45, no. 9 (September 2004): 1583–1593.
- . "An Interpretive History of the Cholesterol Controversy. Part II. The Early Evidence Linking Hypercholesterolemia to Coronary Disease in Humans." *Journal of Lipid Research* 46, no. 2 (February 2005): 179–190.
- . "The Pathogenesis of Atherosclerosis: An Interpretive History of the Cholesterol Controversy, Part IV: The 1984 Coronary Primary Prevention Trial Ends It—Almost." *Journal of Lipid Research* 47, no. 1 (January 2006): 1–14.
- Stemmermann, Grant N., Abraham Nomura, Lance K. Heilbrun, Earl S. Pollack, and Abraham Kagan. "Serum Cholesterol and Colon Cancer Incidence in Hawaiian Japanese Men." *Journal of the National Cancer Institute* 67, no. 6 (December 1981): 1179–1182.
- Stender, Steen, and Jørn Dyerberg. "High Levels of Industrially Produced Trans Fat in Popular Fast Foods." *New England Journal of Medicine* 354, no. 15 (April 13, 2006): 1650–1652.
- Stern, Linda, Nayyar Iqbal, Prakash Seshadri, et al. "The Effects of Low-Carbohydrate versus Conventional Weight Loss Diets in Severely Obese Adults: One-Year Follow-up of a Randomized Trial." *Annals of Internal Medicine* 140, no. 10 (May 18, 2004): 778–785.
- Stout, Clarke, Jerry Morrow, Edward N. Brandt, Jr., and Stewart Wolf. "Unusually Low Incidence of Death from Myocardial Infarction: Study of Italian American Community in Pennsylvania." *Journal of the American Medical Association* 188, no. 10 (June 8, 1964): 845–849.
- Sturdevant, Richard A. L., Morton Lee Pearce, and Seymour Dayton. "Increased Prevalence of Cholelithiasis in Men Ingesting a Serum-Cholesterol-Lowering Diet." *New England Journal of Medicine* 288, no. 1 (January 4, 1973): 24–27.
- Sutherland, Wayne H. F., Sylvia A. de Jong, Robert J. Walker, et al. "Effect of Meals Rich in Heated Olive and Safflower Oils on Oxidation of Postprandial Serum in Healthy Men." *Atherosclerosis* 160, no. 1 (January 2002): 195–203.
- Svendsen, Kristin, Hanne Naper Jensen, Ingwill Sivertsen, and Ann Kristin Sjaastad. "Exposure to Cooking Fumes in Restaurant Kitchens in Norway." *Annals of Occupational Hygiene* 46, no. 4 (2002): 395–400.
- Takeya, Yo, Jordan S. Popper, Yukiko Shimizu, Hiroo Kato, George G. Rhoads, and Abraham Kagan. "Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Incidence of Stroke in Japan and Hawaii." *Stroke* 15, no. 1 (January–February 1984): 15–23.
- Tanaka, Heizo, Yutaka Ueda, Masayuki Hayashi, et al. "Risk Factors for Cerebral Hemorrhage and Cerebral Infarction in a Japanese Rural Community." *Stroke* 13, no. 1 (January–February 1982): 62–73.
- Tanaka, T., and T. Okamura. "Blood Cholesterol Level and Risk of Stroke in Community-Based or Worksite Cohort Studies: A Review of Japanese Cohort Studies in the Past 20 Years." *Keio Journal of Medicine* 61, no. 3 (2012): 79–88.

- Tang, Jian, Qi Zhang Jin, Guo Hui Shen, Chi Tang Ho, and Stephen S. Chang. "Isolation and Identification of Volatile Compounds from Fried Chicken." *Journal of Agricultural and Food Chemistry* 31, no. 6 (1983): 1287–1292.
- Tang, W. H. Wilson, Zeneng Wang, Bruce S. Levison, et al. "Intestinal Microbial Metabolism of Phosphatidylcholine and Cardiovascular Risk." *New England Journal of Medicine* 368, no. 17 (April 25, 2013): 1575–1584.
- Tannenbaum, Albert. "The Genesis and Growth of Tumors. III. Effects of a High-Fat Diet." *Cancer Research* 2, no. 7 (July 1942): 468–475.
- Taubes, Gary. "The Soft Science of Dietary Fat." *Science* 291, no. 5513 (March 2001): 2536–2545.
- . "What if It's All Been a Big Fat Lie?" *New York Times Magazine*, July 7, 2002.
- . *Good Calories, Bad Calories: Fats, Carbs, and the Controversial Science of Diet and Health*. New York: Alfred A. Knopf, 2007.
- . "Do We Really Know What Makes Us Healthy?" *New York Times Magazine*, September 16, 2007.
- . Letter to the Editor. "Eat, Drink and Be Wary." *New York Times*, October 28, 2007.
- . "The Science of Obesity: What Do We Really Know about What Makes Us Fat? An Essay by Gary Taubes." *British Medical Journal* 346 (April 16, 2013).
- . "What Makes You Fat: Too Many Calories, or the Wrong Carbohydrates?" *Scientific American* 309, no. 3 (September 2013): 60–65.
- Teicholz, Nina. "Heart Breaker." *Gourmet*, June 2004, 100–105.
- Teti, Vito. "Food and Fatness in Calabria." In *Social Aspects of Obesity #1*. Edited by Igor De Garine and Nancy J. Pollock. Translated by Nicolette S. James. Amsterdam: Gordon and Breach, 1995.
- Thannhauser, S. J., and Heinz Magendanz. "The Different Clinical Groups of Xanthomatous Diseases: A Clinical Physiological Study of 22 Cases." *Annals of Internal Medicine* 11, no. 9 (March 1, 1938): 1662–1746.
- Tillotson, Jeanne L., Hiroo Kato, Milton Z. Nichaman, et al. "Epidemiology of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii, and California: Methodology for Comparison of Diet." *American Journal of Clinical Nutrition* 26, no. 2 (February 1973): 177–184.
- Tolstoi, Edward. "The Effect of an Exclusive Meat Diet Lasting One Year on the Carbohydrate Tolerance of Two Normal Men." *Journal of Biological Chemistry* 83, no. 3 (September 1929): 747–752.
- . "The Effect of an Exclusive Meat Diet on the Chemical Constituents of the Blood." *Journal of Biological Chemistry* 83, no. 3 (September 1929): 753–758.
- Torrey, John C. "Influence of an Exclusively Meat Diet on the Human Intestinal Flora." *Proceedings of the Society for Experimental Biology and Medicine* 28, no. 3 (December 1930): 295–296.
- "Trans Fatty Acids and Risk of Myocardial Infarction." Toxicology Forum Annual Summer Meeting, July 11–15, 1994.
- "Trial of Clofibrate in the Treatment of Ischaemic Heart Disease. Five-year Study by a Group of Physicians of the Newcastle Upon Tyne Region." *British Medical Journal* 4, no. 5790 (December 25, 1971): 767–775.
- Trichopoulos, Dimitrios. Letter to the Editor. "In Defense of the Mediterranean Diet." *European Journal of Clinical Nutrition* 56, no. 9 (September 2002): 928–929.

- Trichopoulou, Antonia, Tina Costacou, Christina Bamia, and Dimitrios Trichopoulos. "Adherence to a Mediterranean Diet and Survival in a Greek Population." *New England Journal of Medicine* 348, no. 26 (June 26, 2003): 2599–2608.
- Trichopoulou, Antonia, Antigone Kouris-Blazos, Mark L. Wahlqvist, et al. "Diet and Overall Survival in Elderly People." *British Medical Journal* 311, no. 7018 (December 2, 1995): 1457–1460.
- Trichopoulou, Antonia, and Pagona Lagiou. "Healthy Traditional Mediterranean Diet: An Expression of Culture, History, and Lifestyle." *Nutrition Reviews* 55, no. 11, pt. 1 (November 1997): 383–389.
- Trichopoulou, Antonia, Philippos Orfanos, Teresa Norat, et al. "Modified Mediterranean Diet and Survival: EPIC-Elderly Prospective Cohort Study." *British Medical Journal* 330, no. 7498 (April 28, 2005): 991.
- Troiano, Richard P., Ronette R. Briefel, Margaret D. Carroll, and Karil Bialostosky. "Energy and Fat Intakes of Children and Adolescents in the United States: Data from the National Health and Nutrition Examination Surveys." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (2000): 1343S–1353S.
- Trowell, H. C., and D. P. Burkitt, eds. *Western Diseases: Their Emergence and Prevention*. London: Edward Arnold, 1981.
- Truswell, A. Stewart. "Diet and Plasma Lipids—A Reappraisal." *American Journal of Clinical Nutrition* 31, no. 6 (June 1978): 977–989.
- . "Evolution of Dietary Recommendations, Goals, and Guidelines." *American Journal of Clinical Nutrition* 45, no. 5 suppl. (May 1987): 1060–1072.
- . "Problems with Red Meat in the WCRF2." *American Journal of Clinical Nutrition* 89, no. 4 (April 2009): 1274–1275.
- Tunstall-Pedoe, Hugh, Kari Kuulasmaa, Markku Mähönen, Hanna Tolonen, Esa Ruokokski, and Phillippe Amouyel. "Contribution of Trends in Survival and Coronary-Event Rates to Changes in Coronary Heart Disease Mortality: 10-Year Results from 37 WHO MONICA Project Populations. Monitoring Trends and Determinants in Cardiovascular Disease." *Lancet* 353, no. 9164 (May 8, 1999): 1547–1557.
- Turpeinen, Osmo, Martti Karvonen, Maija Pekkarinen, Matti Miettinen, Reino Elosuo, and Erkki Paavilainen. "Dietary Prevention of Coronary Heart Disease: The Finnish Mental Hospital Study." *International Journal of Epidemiology* 8, no. 2 (1979): 99–118.
- Twain, Mark. *Life on the Mississippi*. 1883. Reprinted. Hollywood, CA: Simon & Brown, 2011.
- Uauy, Ricardo, Charles E. Mize, and Carlos Castillo-Duran. "Fat Intake During Childhood: Metabolic Responses and Effects on Growth." *American Journal of Clinical Nutrition* 72, no. 5 suppl. (November 2000): 1345S–1360S.
- Ueshima, Hirotsuga, Minoru Iida, and Yoshio Komachi. Letter to the Editor. "Is It Desirable to Reduce Total Serum Cholesterol Level as Low as Possible?" *Preventive Medicine* 8, no. 1 (January 1979): 104–111.
- Ueshima, Hirotsuga, Kozo Tatara, and Shintaro Asakura. "Declining Mortality From Ischemic Heart Disease and Changes in Coronary Risk Factors in Japan, 1956–1980." *American Journal of Epidemiology* 125, no. 1 (1987): 62–72.
- US Census Office. *Census Reports II: Twelfth Census of the United States, Taken in the Year 1900. Population. Part II*. Washington, DC: US Census Office, 1902.

- US Congress. House. Committee on Agriculture. *National Academy of Sciences Report on Healthful Diets: Hearings before the House Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition*. 96th Congress, 2nd Session, 1980.
- . House. Committee on Appropriations. *Dietary Guidelines for Americans: Hearings before the House Subcommittee on Agriculture, Rural Development and Related Agencies*. 96th Congress, 2nd Session, 1980.
- . Senate. Committee on Nutrition and Human Needs. *Diet Related to Killer Diseases*. 94th Congress, July 27 and 28, 1976.
- . Senate. Committee on Nutrition and Human Needs. *Obesity and Fad Diets: Hearings Before the Select Committee on Nutrition and Human Needs of the US Senate*. 93rd Congress. Washington, DC: US Government Printing Office, April 12, 1973.
- US Department of Agriculture. *Nutrition and Your Health: Dietary Guidelines for Americans Home and Garden Bulletin 228*. Washington, DC: Science and Education Administration, 1980.
- . “Profiling Food Consumption in America.” In *Agricultural Fact Book 2001–2002*. 13–21. Washington, DC: US Government Printing Office, 2003.
- US Department of Agriculture and US Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th Edition, Washington, DC: US Government Printing Office, December 2010.
- Van Deventer, Hendrick, W. Greg Miller, Gary L. Meyers, et al. “Non-HDL Cholesterol Shows Improved Accuracy for Cardiovascular Risk Score Classification Compared to Direct or Calculated LDL Cholesterol in Dyslipidemic Population.” *Clinical Chemistry* 57, No. 3 (2011): 490–501.
- Vernon, Mary C., John Mavropoulos, Melissa Transue, William S. Yancy, and Eric C. Westman. “Clinical Experience of a Carbohydrate-Restricted Diet: Effect on Diabetes Mellitus.” *Metabolic Syndrome and Related Disorders* 1, no. 3 (September 2003): 233–237.
- Volek, Jeff S., Kevin D. Ballard, Ricardo Silvestre, et al. “Effects of Dietary Carbohydrate Restriction Versus Low-Fat Diet on Flow-Mediated Dilation.” *Metabolism* 58, no. 12 (December 2009): 1769–1777.
- Volek, Jeff S., Stephen D. Phinney, Cassandra E. Forsythe, et al. “Carbohydrate Restriction Has a More Favorable Impact on the Metabolic Syndrome than a Low Fat Diet.” *Lipids* 44, no. 4 (April 2009): 297–309.
- Volek, Jeff S., Matthew J. Sharman, and Cassandra E. Forsythe. “Modification of Lipoproteins by Very Low-Carbohydrate Diets.” *Journal of Nutrition* 135, no. 6 (June 2005): 1339–1342.
- Volek, Jeff S., Matthew Sharman, Ana Gomez, et al. “Comparison of Energy-Restricted Very Low-Carbohydrate and Low-Fat Diets on Weight Loss and Body Composition in Overweight Men and Women.” *Nutrition & Metabolism* 1, no. 13 (2004): 1–32.
- Volek, Jeff S., Matthew J. Sharman, et al. “Comparison of a Very Low-Carbohydrate and Low-Fat Diet on Fasting Lipids, LDL Subclasses, Insulin Resistance, and Postprandial Lipemic Responses in Overweight Women.” *Journal of the American College of Nutrition* 23, no. 2 (April 2004): 177–184.
- Von Noorden, C. *Clinical Treatises on Pathology and Therapy of Disorders of Metabolism and Nutrition, Part VIII. Diabetes Mellitus*. New York: E. B. Treat, 1907.

- Vos, Eddie. "Modified Mediterranean Diet and Survival: Key Confounder Was Missed." *British Medical Journal* 330, no. 7503 (June 4, 2005): 1329.
- Wade, Nicholas. "Food Board's Fat Report Hits Fire." *Science* 209, no. 4453 (July 11, 1980): 248–250.
- Walden, Carolyn E., Barbara M. Retzlaff, Brenda L. Buck, Shari Wallick, Barbara S. McCann, and Robert H. Knopp. "Differential Effect of National Cholesterol Education Program (NCEP) Step II Diet on HDL Cholesterol, Its Subfractions, and Apoprotein AI Levels in Hypercholesterolemic Women and Men After 1 Year: The beFIT Study." *Arteriosclerosis, Thrombosis, and Vascular Biology* 20, no. 6 (June 2000): 1580–1587.
- Wallace, A. J., W. H. F. Sutherland, J. I. Mann, and S. M. Williams. "The Effects of Meals Rich in Thermally Stressed Olive and Safflower Oils on Postprandial Serum Paraoxonase Activity in Patients with Diabetes." *European Journal of Clinical Nutrition* 55, no. 11 (November 2001): 951–958.
- Wallace, Lance, and Wayne Ott. "Personal Exposure to Ultrafine Particles." *Journal of Exposure Science and Environmental Epidemiology* 21 (January–February 2011): 20–30.
- Wallis, Claudia. "Hold the Eggs and Butter." *Time*, March 26, 1984.
- Walvin, James. *Fruits of Empire: Exotic Produce and British Taste, 1660–1800*. New York: New York University Press, 1997.
- Waterlow, John C. "Diet of the Classical Period of Greece and Rome." *European Journal of Clinical Nutrition* 43, suppl. 2 (1989): 3–12.
- Wears, Robert L., Richelle J. Cooper, and David J. Magid. "Subgroups, Reanalyses, and Other Dangerous Things." *Annals of Emergency Medicine* 46, no. 3 (September 2005): 253–255.
- Weld, Isaac. *Travels Through the States of North America, and the Provinces of Upper and Lower Canada, During the Years 1795, 1796, and 1797*. London: printed for John Stockdale, Piccadilly, 1799.
- Werdelin, Lars. "King of Beasts." *Scientific American* 309, no. 5 (November 2013): 34–39.
- Werkö, Lars. "Risk Factors and Coronary Heart Disease—Facts or Fancy?" *American Heart Journal* 91, no. 1 (January 1976): 87–98.
- Wertheimer, E., and B. Shapiro. "The Physiology of Adipose Tissue." *Physiology Reviews* 28, no. 4 (October 1948): 451–464.
- Westman, Eric C. "Rethinking Dietary Saturated Fat." *Food Technology* 63, no. 2 (2009): 30.
- Westman, Eric C., Richard D. Feinman, John C. Mavropoulos, et al. "Low-Carbohydrate Nutrition and Metabolism." *American Journal of Clinical Nutrition* 86, no. 2 (August 2007): 276–284.
- Westman, Eric C., John C. Mavropoulos, William S. Yancy, and Jeff S. Volek. "A Review of Low-Carbohydrate Ketogenic Diets." *Current Atherosclerosis Reports* 5, no. 6 (November 2003): 476–483.
- Westman, Eric C., Jeff S. Volek, and Richard D. Feinman. "Carbohydrate Restriction Is Effective in Improving Atherogenic Dyslipidemia even in the Absence of Weight Loss." *American Journal of Clinical Nutrition* 84, no. 6 (December 2006): 1549.
- Westman, Eric C., William S. Yancy, Joel S. Edman, Keith F. Tomlin, and Christine E. Perkins. "Effect of 6-month Adherence to a Very Low Carbohydrate Diet Program." *American Journal of Medicine* 113, no. 1 (2002): 30–36.

- Westman, Eric C., William S. Yancy, and Margaret Humphreys. "Dietary Treatment of Diabetes Mellitus in the Pre-Insulin Era (1914–1922)." *Perspectives in Biology and Medicine* 49, no. 1 (Winter 2006): 77–83.
- White, Caroline. "Suspected Research Fraud: Difficulties Getting at the Truth." *British Medical Journal* 331, no. 7511 (July 30, 2005): 281–288.
- White, Paul Dudley. "Heart Ills and Presidency: Dr. White's Views." *New York Times*, October 30, 1955.
- Willett, Walter C. *Eat, Drink and Be Healthy: The Harvard Medical School Guide to Healthy Eating*. New York: Simon & Schuster, 2001.
- . "The Great Fat Debate: Total Fat and Health," *Journal of the American Dietetic Association* 111, no. 5 (May 2011): 660–662.
- Willett, Walter C., and Alberto Ascherio. "Trans Fatty Acids: Are the Effects Only Marginal?" *American Journal of Public Health* 84, no. 5 (May 1994): 722–724.
- Willett, Walter C., and David J. Hunter. "Prospective Studies of Diet and Breast Cancer." *Cancer* 74, no. 3 suppl. (August 1, 1994): 1085–1089.
- Willett, Walter C., Frank Sacks, Antonia Trichopoulou, et al. "Mediterranean Diet Pyramid: A Cultural Model for Healthy Eating." *American Journal of Clinical Nutrition* 61, no. 6 (June 1995): 1402S–1406S.
- Willett, Walter C., Meir J. Stampfer, Graham A. Colditz, et al. "Dietary Fat and the Risk of Breast Cancer." *New England Journal of Medicine* 316, no. 1 (January 1, 1987): 22–28.
- Willett, Walter C., Meir J. Stampfer, JoAnn E. Manson, et al. "Intake of Trans Fatty Acids and Risk of Coronary Heart Disease Among Women." *Lancet* 341, no. 8845 (March 6, 1993): 581–585.
- Williams, Roger R., Paul D. Sorlie, Manning Feinleib, et al. "Cancer Incidence by Levels of Cholesterol." *Journal of the American Medical Association* 245, no. 3 (January 16, 1981): 247–252.
- Wood, Randall, Fred Chumblor, and Rex Wiegand. "Incorporation of Dietary *cis* and *trans* Isomers of Octadecenoate in Lipid Classes of Liver and Hepatoma." *Journal of Biological Chemistry* 252, no. 6 (March 25, 1977): 1965–1970.
- Wood, Randall, Karen Kubena, Barbara O'Brien, Stephen Tseng, and Gail Martin. "Effect of Butter, Mono- and Polyunsaturated Fatty Acid-Enriched Butter, Trans Fatty Acid Margarine, and Zero Trans Fatty Acid Margarine on Serum Lipids and Lipoproteins in Healthy Men." *Journal of Lipid Research* 34, no. 1 (January 1993): 1–11.
- Wood, Randall, Karen Kubena, Stephen Tseng, Gail Martin, and Robin Crook. "Effect of Palm Oil, Margarine, Butter and Sunflower Oil on Serum Lipids and Lipoproteins of Normocholesterolemic Middle-Aged Men." *Journal of Nutritional Biochemistry* 4, no. 5 (May 1993): 286–297.
- Woodhill, J. M., A. L. Palmer, B. Leelarthaeapin, C. McGilchrist, and R. B. Blacket. "Low Fat, Low Cholesterol Diet in Secondary Prevention of Coronary Heart Disease." *Advances in Experimental Medicine and Biology* 109 (1978): 317–330.
- Wootan, Margo, Bonnie Liebman, and Wendie Rosofsky. "Trans: The Phantom Fat." *Nutrition Action Healthletter* 23, no. 7 (1996): 10–14.
- World Cancer Research Fund and the American Institute for Cancer Research. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective*. Washington, DC: American Institute for Cancer Research, 2007.

- World Health Organization. "Diet, Nutrition, and the Prevention of Chronic Diseases: Joint WHO/FAO Expert Consultation." *World Health Organization Technical Report Series* 916. Geneva, Switzerland: WHO, 2003.
- Worth, Robert M., Hiroo Kato, George G. Rhoads, Abraham Kagan, and Sherman Leonard Syme. "Epidemiologic Studies of Coronary Heart Disease and Stroke in Japanese Men Living in Japan, Hawaii and California: Mortality." *American Journal of Epidemiology* 102, no. 6 (December 1975): 481–490.
- Wrangham, Richard. *Catching Fire: How Cooking Made Us Human*. Philadelphia: Basic Books, 2009.
- The Writing Group for the DISC Collaborative Research Group. "Efficacy and Safety of Lowering Dietary Intake of Fat and Cholesterol in Children with Elevated Low-Density Lipoprotein Cholesterol." *Journal of the American Medical Association* 273, no. 18 (May 10, 1995): 1429–1435.
- Wu, She-Ching, and Gow-Chin Yen. "Effects of Cooking Oil Fumes on the Genotoxicity and Oxidative Stress in Human Lung Carcinoma (A-549) Cells." *Toxicology in Vitro* 18, no. 5 (October 2004): 571–580.
- Yancy, William S., Maren K. Olsen, John R. Guyton, Ronna P. Bakst, and Eric C. Westman. "A Low-Carbohydrate, Ketogenic Diet Versus a Low-Fat Diet to Treat Obesity and Hyperlipidemia: A Randomized, Controlled Trial." *Annals of Internal Medicine* 140, no. 10 (May 18, 2004): 769–777.
- Yancy, William S., Eric C. Westman, J. R. McDuffie, et al. "A Randomized Trial of a Low-carbohydrate diet vs Orlistat Plus a Low-fat Diet for Weight Loss." *Archives of Internal Medicine* 170, no. 2 (January 2010): 136–145.
- Yang, Mei-Uih, and Theodore B. Van Itallie. "Composition of Weight Lost During Short-Term Weight Reduction. Metabolic Responses of Obese Subjects to Starvation and Low-Calorie Ketogenic and Nonketogenic Diets." *Journal of Clinical Investigation* 58, no. 3 (September 1976): 722–730.
- Yano, Katsuhiko, George G. Rhoads, Abraham Kagan, and Jeanne Tillotson. "Dietary Intake and the Risk of Coronary Heart Disease in Japanese Men Living in Hawaii." *American Journal of Clinical Nutrition* 31, no. 7 (July 1978): 1270–1279.
- Yellowlees, Walter W. "Sir James Mackenzie and the History of Myocardial Infarction." *Journal of the Royal College of General Practitioners* 32, no. 235 (February 1982): 109–112.
- Yerushalmy, Jacob, and Herman E. Hilleboe. "Fat in the Diet and Mortality from Heart Disease; A Methodologic Note." *New York State Journal of Medicine* 57, no. 14 (July 1957): 2343–2354.
- Yngve, Agneta, Leif Hambraeus, Lauren Lissner, et al. "Invited Commentary: The Women's Health Initiative. What Is on Trial: Nutrition and Chronic Disease? Or Misinterpreted Science, Media Havoc and the Sound of Silence from Peers?" *Public Health Nutrition* 9, no. 2 (2006): 269–272.
- Yonge, C. D., ed. and trans. *The Deipnosophists, or, Banquet of the Learned, of Athenæus*. London: Henry G. Bohn, 1854.
- Young, S. Stanley. "Gaming the System: Chaos from Multiple Testing." *IMS Bulletin* 36, no. 10 (2007): 13.
- Young, Shun-Chieh, Louis W. Chang, Hui-Ling Lee, Lung-Hung Tsai, Yin-Chang Liu, and Pinpin Lin. "DNA Damages Induced by Trans, Trans-2, 4-Decadienal (tt-DDE), a

- Component of Cooking Oil Fume, in Human Bronchial Epithelial Cells." *Environmental and Molecular Mutagenesis* 51, no. 4 (February 2010): 315–321.
- Yudkin, John. *Pure, White and Deadly*. New York: Penguin, 1972.
- Zarkovic, Neven. "4-Hydroxynonenal as a Bioactive Marker of Pathophysiological Processes." *Molecular Aspects of Medicine* 24, no. 4–5 (August–October 2003): 281–291.
- Zhang, Qing, Ahmed S. M. Saleh, Jing Chen, and Qun Shen. "Chemical Alterations Taken Place During Deep-Fat Frying Based on Certain Reaction Products: A Review." *Chemistry and Physics of Lipids* 165, no. 6 (September 2012): 662–681.
- Zhong, Lijie, Mark S. Goldberg, Yu-Tang Gao, and Fan Jin. "Lung Cancer and Indoor Air Pollution Arising from Chinese-Style Cooking among Nonsmoking Women Living in Shanghai, China." *Epidemiology* 10, no. 5 (September 1999): 488–494.
- Zhong, Lijie, Mark S. Goldberg, Marie-Élise Parent, and James A. Hanley. "Risk of Developing Lung Cancer in Relation to Exposure to Fumes from Chinese-Style Cooking." *Scandinavian Journal of Work, Environment and Health* 25, no. 4 (August 1999): 309–316.
- Zimetbaum, Peter, William H. Frishman, Wee Lock Ooi, et al. "Plasma Lipids and Lipoproteins and the Incidence of Cardiovascular Disease in the Very Elderly. The Bronx Aging Study." *Arteriosclerosis, Thrombosis, and Vascular Biology* 12, no. 4 (April 1992): 416–423.
- Zock, Peter L., and Martijn B. Katan. "Hydrogenation Alternatives: Effects of Trans Fatty Acids and Stearic Acid Versus Linoleic Acid on Serum Lipids and Lipoproteins in Humans." *Journal of Lipid Research* 33, no. 3 (March 1992): 399–410.
- Zukel, William J., Robert H. Lewis, Philip E. Enterline, et al. "A Short-Term Community Study of the Epidemiology of Coronary Heart Disease: A Preliminary Report on the North Dakota Study." *American Journal of Public Health and the Nation's Health* 49, no. 12 (1959): 1630–1639.