

Harper's (Farber, 2006a), and her collection of essays (Farber, 2006b), and several books by other skeptics and dissidents in the offing, and a pending court case in Australia, perhaps the tide is about to turn. This movie may yet be made in the lifetime of some now living. That is devoutly to be wished. In the meantime, there is this book to savor.

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Malignant Medical Myths: Why Medical Treatment Causes 200,000 Deaths in the USA Each Year, and How to Protect Yourself by Joel M. Kauffman. Infinity Publishing, West Conshohocken, PA, 2006. 326 pp. \$24.95 (paper) ISBN 0-7414-2909-8, Infinity Publishing.com.

In the brilliant new book, *Malignant Medical Myths: Why Medical Treatment Causes 200,000 Deaths in the USA Each Year, and How to Protect Yourself*, Professor Joel M. Kauffman analyzes 11 cherished dogmas of the medical and public health establishment. He concludes that the advice to the public concerning these myths is based on unsound and unsupported science and may be responsible for as many as 200,000 deaths in the USA annually.

The myths described in this book range from (1) aspirin therapy for prevention of vascular disease, to (2) the ineffectiveness of low carbohydrate diets for losing weight, (3) the use of cholesterol lowering statin drugs for prevention of mortality, (4) drug therapy for moderate hypertension, (5) prolongation of lifespan by moderate alcohol consumption, (6) exercise to extend lifespan, (7) the ineffectiveness of EDTA chelation therapy for atherosclerosis, (8) the danger of low dose ionizing radiation, (9) prolongation of life by annual mammography in women, (10) improved rates of cancer survival from early detection and therapy, and (11) water fluoridation to prevent dental caries. In each case Professor

Kauffman analyzes extensive published studies in the medical literature for critical evidence to support these myths, and in each case he finds that the evidence is lacking, contradictory, or otherwise non-supportive.

The book is confidently and authoritatively written by an exceptionally well qualified author who is currently Professor of Chemistry at the University of the Sciences in Philadelphia (USP). Dr. Kauffman earned a BS in Chemistry from the Philadelphia College of Pharmacy and Science, now called the University of the Sciences in Philadelphia. He later earned a PhD in organic chemistry from Massachusetts Institute of Technology, served in the chemical industry for 11 years, and joined the faculty of USP in 1979 rising to the rank of Professor of Chemistry. He has published 80 articles in peer reviewed journals on chemical and medical topics and holds 11 U.S. patents, including two patents on antituberculosis drugs.

In the analysis of the aspirin therapy myth, all of the important trials show that aspirin therapy is only effective in secondary prevention of cardiac disease in patients who have already suffered heart attack, ischemic attack, unstable angina, or minor stroke. The published trials all fail to show a preventive effect of aspirin for primary prevention of disease in normal subjects, when the data are analyzed for absolute risk reduction. For example, the massive Physicians Health Group Study published in 1989 showed a relative risk reduction of 44% for non-fatal heart attack, but only a 0.18% per year when calculated as absolute risk reduction. The author clearly explains the difference between these two statistical calculations and how clinical investigators use relative risk analysis to hide deficiencies of trial results. The side effects of aspirin therapy, including gastritis, peptic ulcer with hemorrhage, hemorrhagic stroke, sudden death, macular degeneration, and cataracts, lead to considerable morbidity and explain why there is no decrease in all-cause mortality in several large studies. The analysis concludes by suggesting alternatives to aspirin therapy for vascular disease prevention, showing that vitamin E, magnesium, ubiquinone (Co-enzyme Q10), and omega 3 oils all offer greater benefits than aspirin with fewer side effects.

For the reader interested in diet and its relation to disease, the comprehensive analysis of the myth against low carbohydrate diets is an extremely valuable and balanced presentation of this controversial aspect of nutrition and health. The analysis shows that the low fat low cholesterol diet dogma, sponsored by governmental agencies, professional organizations and industrial groups, is based on spurious and unproven speculations about prevention of disease. He claims that "much of the evidence for low-fat (high-carb) diets is a result of poorly designed studies, misinterpretation, exaggeration and outright fraud." In fact, the ominous increase in diabetes, obesity, and hypertension observed in the U.S. during the past several decades is correctly attributed to the pervasive adoption of this dietary advice by large segments of the population. In contrast, the discussion about the low carbohydrate approach reviews the evidence contained in a selected and referenced group of books that are analyzed and fully described in a very valuable appendix. The discussion about the difference between caloric

content of food, as estimated by calorimetry, and net metabolizable energy of food helps to explain paradoxes about the differential effects of low carbohydrate and high carbohydrate diets on obesity. The clearly explained discussions about food allergies, trans fats, fructose, corn syrup and artificial sweeteners complement the presentation.

In the analysis concerning the myth that cholesterol lowering drugs are beneficial, presentation of evidence from the major trials refutes the claims of significant extension of life from statin therapy. When the data are analyzed to show absolute risk reduction from statin therapy, two of the major trials (EXCEL and AFCAPS) show an *increase* in all-cause mortality, and the remaining nine trials show a slight *decrease* in all-cause mortality. The mean absolute risk reduction for all-cause mortality from all 11 trials is -0.28% per year, meaning an improved chance of not dying in one year while taking a statin drug is 1 in 357. According to the author "these are not impressive odds." The analysis of the relation between mortality and blood cholesterol levels is devastating to the cholesterol/fat hypothesis of atherogenesis. Data from numerous well designed trials (Framingham, Japan, Manhattan, etc.) show that mortality increases as cholesterol levels are lowered, particularly in the elderly. The data from the Health Protection Study trial show a lack of dose response between cardiovascular events and LDL level. The analysis concludes by reviewing how drug companies minimize or hide serious side effects of statin therapy, including "cancer, constipation, erectile dysfunction, myalgia, myopathy, polyneuropathy, rhabdomyolysis, liver and kidney damage, congestive heart failure and amnesia."

The detailed and fascinating analysis of the evidence for benefit from blood pressure lowering drugs utilizes statistical arguments concerning Framingham data to show that the age-associated increase in blood pressure has no effect on all-cause mortality for more than 90% of the subjects. Only those subjects with malignant hypertension benefit significantly from anti-hypertensive therapy, as shown by the Swedish STOP trial in patients aged 70–84. The effects of drug therapy in subjects with blood pressure below the 90th percentile are negligible, as judged by reduction of 0.1 to 2.4% in absolute incidence of stroke, cardiovascular disease, heart failure and mortality. For example, in the analysis of the Medical Research Council study of the diuretic bendrofluzide and the beta-blocker propranolol, there was essentially no difference in mortality or stroke in 4650 treated patients, compared with 4500 placebo patients, despite significant reductions in systolic and diastolic blood pressure over a 5.5 year period. The analysis concludes by pointing out the high drop out rates from side effects in blood pressure trials, ranging from 12.4% per year to as much as 60% per year for calcium channel blockers. In most trials a high prevalence of drug side effects is added to a lack of preventive effect. Some of the common side effects of these drugs are persistent cough, postural hypotension, kidney failure, mental confusion, anemia and muscle weakness. Calcium channel blockers were found to *increase* heart attack, cancer, heart failure and arrhythmias and have fallen into disfavor for this reason. The author recommends that most subjects with moderate

elevation of blood pressure should rely on a low carbohydrate diet, with added magnesium, fish oil, and l-arginine supplements, rather than drug therapy.

In the analysis of the myth concerning protection from disease by beer, wine or spirits the discussion focuses on effects on all-cause mortality. The few large published studies (Scotland, Sweden) that followed all-cause mortality showed minor benefits from moderate alcohol consumption and increased risk of mortality from accidents, poisoning, and cancers of esophagus, pancreas and lung from high consumption. In addressing the belief that antioxidant polyphenols may be responsible for the benefit of red wine consumption, the author quotes the Birmingham UK study showing that red wine increases serum antioxidant capacity more than white wine but less than vitamin C. The overall conclusion of the analysis is that moderate alcohol consumption has a minor beneficial effect in reducing cardiovascular deaths but little effect on all-cause mortality.

In the chapter on the exercise myth the main conclusion is that strenuous exercise damages bones and joints and leads to increased risk of sudden death. The evidence for prolongation of life span by moderate or strenuous exercise is compromised by self selection of healthy subjects, use of surrogate endpoints such as blood lipid levels or resting heart rate, and failure to utilize absolute risk reduction analysis. For example, the Manson et al. (2002) study of 72,110 post-menopausal women followed for 3.2 years shows that there is no difference in the percentage without cardiovascular event either for walking or for aerobic exercise, regardless of the level of exercise. The exception is in the lowest quintile of exercise, where more women had adverse events in both of the walking and aerobic exercise groups, showing that they were a self selected, sicker group than those who were able to exercise more. The final conclusion is that "if your body's stress messages are heeded, there will be no harm in such moderate exercises, and some benefits may accrue."

As pointed out by Duane Graveline MD in his introductory remarks, there has been a 50 year confrontation between proponents and opponents of chelation therapy for vascular disease. The method of chelation therapy involves intravenous infusion of the chelating compound, ethylenediaminetetraacetic acid (EDTA), along with minerals like magnesium chloride and sodium bicarbonate, a local anesthetic, heparin to prevent blood clotting, vitamin C and B-complex vitamins. At present chelation therapy is legal but subject to potential harassment by the Food and Drug Administration, the Federal Trade Commission, and establishment medical practitioners. The origin of the controversy is the supposed lack of supportive evidence from randomized control trials, the competition with cardiologists and vascular surgeons for patients, and the arguments over safety and efficacy. The analysis of the published data on chelation therapy concludes that about 87% of patients improved, as judged by exercise ability, improved arteriograms, improved blood flow, improved cardiogram, and improved stress test. The one large negative trial was published by vascular surgeons in Denmark, who were investigated by the Danish Medical Association for scientific misconduct, showing that the correct solutions were not used, treated subjects were

sicker than controls, 70% were smokers known not to respond to chelation therapy, and the double-blinding was prematurely broken. Evidence from one small study showed that chelation therapy prevented cancer deaths among a group of 59 patients, compared with 172 controls, in a 10 year follow up study. The proponents of chelation therapy are uncertain about how the method works at the pathophysiological level, but the results reviewed in this analysis show that the method is very safe and effective when used by skilled practitioners in this method of therapy. The author analyzes the criticism of chelation therapy by Saul Green Ph.D., an anti-chelation commentator on the Quackwatch website, and uses his extensive knowledge of basic chemistry to rebut these criticisms. He concludes by recommending chelation therapy as a first choice in treatment of vascular disease before the more drastic and dangerous angioplasty and by-pass surgery methods are employed.

The informative analysis of the effects of low dose radiation addresses the controversial issue of "radiation hormesis." For many years epidemiologists and radiation experts have debated whether low dose ionizing radiation has beneficial health effects, termed hormesis, manifested as decreased cancer mortality, infections or congenital malformations, and increased life span. After a clear primer on the biological effects of ionizing radiation, the author cites a number of studies of nuclear facilities workers, atomic bomb survivors, residents of the high plains states in the USA, fluoroscopy patients, British radiologists, persons exposed to radon, patients with thyroid cancer treated by radiation, and inhabitants of dwellings in Taiwan containing radioactive Cobalt 60. In each case low dose radiation was observed to have beneficial health effects. For example, fluoroscopy patients were found to have a reduced breast cancer rate 10 years following exposure to 10–29 cGy (rads). A detailed analysis of a study of lung cancer mortality in subjects exposed to radon in their homes by Professor Bernard Cohen of the University of Pittsburg revealed a beneficial effect at low doses of radiation. The denial of radiation hormesis by the prominent Professor Emeritus of Medical Physics at University of California-Berkeley, John W. Gofman, and by representatives of the U. S. Nuclear Regulatory Commission is refuted by the author's recalculation of the data on cancer deaths among atomic bomb victims, showing hormesis at low radiation doses. This hormesis effect is attributed to stimulation of DNA repair enzymes and reduced radiation mutagenesis. Other hypothetical explanations of hormesis, such as stabilization of the anti-carcinogenic complex of cobalamin, thioretinaco ozonide, are not considered. According to the author, the practical effect of denial of radiation hormesis has led to "needless expense both in dwellings and workplaces, resistance to nuclear power plants, as well as avoidance of exposure to beneficial medical procedures utilizing low-dose radiation."

In two remarkable chapters the author sensibly and clearly analyzes the claims and outcomes concerning cancer detection and treatment. In the case of mammography the "Cancer Industry" promotes the use of a test that gives 90% false positive results and detects breast cancer only about one year before it would

have been detected by palpation. Moreover, the early detection of breast cancer by mammography includes many cases of ductal carcinoma in situ (DCIS), which are not invasive cancer by definition. The overall result of outcome studies (NY Health Insurance Plan, Two-Counties trial in Sweden, Edinburgh and Guildhall trial, Malmo trial, Canadian National Breast Screening Study) of mammography shows that this detection procedure has no effect on long term all-cause mortality. The reason for this result is that metastases from breast cancer cannot be treated effectively by radiation and chemotherapy. Only local surgical excision offers effective treatment for breast cancer in those patients who have not already developed metastatic disease. Interestingly, the author does attribute the decline in breast cancer mortality between 1990 and 2000 to the hormetic effect of mammography.

In the chapter on cancer treatment the careful analysis shows that over the past half century, there is no significant increase in cancer mortality or incidence in the U.S., except for increases in lung cancer and melanoma, which are attributable to increased smoking and unprotected sun exposure. Much of the apparent increase in survival following treatment for many types of cancer is related to early detection, particularly in the case of prostate and breast cancer. In the discussion on cancer prevention, the beneficial effect of vitamin D production by the action of sunlight on skin is balanced against the potential carcinogenic effect of UVA and UVB radiation. The author concludes that sun sensitive subjects are protected from melanoma and other skin cancers by sun blocks against UV radiation. In the discussion of dietary fat and breast cancer, the much touted Nurses' Health Study showed that there was no effect of dietary fat on the absolute risk of NOT developing this cancer, as shown by calculations of the author. By analyzing the carcinogenic effect of unsaturated oils, the author concludes that "the high-carb, high omega-6 oil diet recommended so strongly by the USDA and others is just as deadly in causing cancer as it is in causing cardiovascular problems." Analysis of the data on hormone replacement therapy attributes "a third to a half of breast cancer" to this treatment in post-menopausal women, according to five high quality studies cited by the author. The discussion of mainstream cancer treatments focuses on the devastating side effects of chemotherapy and radiation and the insignificant effect on all-cause mortality, emphasizing that "if there is a survival advantage, it is generally so small that it is undetectable through the normal route of clinical trials," according to Ralph W. Moss. The chapter concludes with a detailed analysis of several alternative therapeutic approaches, including intravenous vitamin C, as advocated by Cameron and Pauling, and antineoplaston therapy, as advocated by Burzynski. The discussion describes the efforts of the "Cancer Industry" to discredit these alternative approaches.

The final malignant medical myth to be addressed is that fluoridation of drinking water prevents tooth decay. Several large epidemiological studies (South and North Shields, England, New Zealand, World Health Organization, Tucson, Arizona, Japan, India) show that increased fluoride and decreased calcium in drinking water are associated with an increased incidence of dental

caries in children. The only positive study to be found in the medical literature is a very minor beneficial effect of fluoride on deciduous teeth in young children. The water fluoridation movement started in the late 1930s at the behest of the U.S. Atomic Energy Commission and several large aluminum producers, including Alcoa, Reynolds, and Kaiser Aluminum. A biochemist sponsored by Alcoa, Gerald Cox, first suggested in 1939 that water fluoridation might prevent dental caries based on experiments with rats. Eventually pressure from these government agencies and industrial producers led to the current practice of addition of hexafluorosilicic acid and sodium hexafluorosilicate, waste products of the fertilizer industry, to municipal drinking water with the idea of preventing dental caries. These machinations are described in Christopher Bryson's excellent book, *The Fluoride Deception*, which is cited by the author. The safety of fluoridation is called into question by evidence of increased cancer death rates in fluoridated U.S. cities, increased osteosarcoma in young men, increased hip fractures in the elderly, increased hypothyroidism, and increased birth defects, stillbirths and early infant mortality, compared with non-fluoridated communities. The questioning and suppression of some of this evidence by government agencies and industrial aluminum producers is described by the author. The efforts of these fluoridation proponents to discredit the pioneering work on fluorine toxicity by Kaj Roholm in the 1930s, and to discredit the more recent (1994) evidence of neurotoxicity of fluoride in rats demonstrated by Phyllis Mullinex, are described in detail in Bryson's book. The conclusion of the author is that "fluoridation of municipal water should cease..." and the EPA should "set the enforceable Maximum Contaminant Level at 0.4 ppm fluoride in drinking water." A movement in this direction is the recent recommended lowering of the Maximum Contaminant Level for fluoride below 4 ppm by the U.S. National Research Council/National Academy of Sciences expert panel report of March 26, 2006 to prevent dental fluorosis, hip fractures, and other potential adverse health effects.

Professor Kauffman is to be congratulated for providing this useful treasure trove of clear-headed information and analysis on prevention and treatment of disease. The reader will be able to use this information to guide himself or herself in selecting the most rational approach to addressing the consequences of these medical myths. Throughout the book, several important ethical issues concerning the medical and pharmaceutical establishments are raised. Some of these issues include conflict of financial interest in promoting medical myths by professionals, industry, and governmental organizations; subversion of the peer review process for medical research publications by industry money; use of deceptive and misleading statistical analysis of clinical trial data; suppression of negative trial results; marketing of pharmaceuticals under the guise of medical education; corruption of regulatory governmental agencies by money from industry; and pressure on doctors to comply with erroneous treatment guidelines that are promulgated by professional societies and governmental agencies. Many

of these issues are addressed more fully in the books and articles cited in the excellent bibliography that supports the assertions in *Malignant Medical Myths*.

I highly recommend this book to medical professionals, general readers who are concerned about their health, and policy makers in the area of prevention and treatment of disease. The lessons of this book have profound implications for the future of medicine and public health in the 21st century. If the challenges to mainstream medicine of this book can be met in the future, the result will be improved public health and more sensible utilization of national resources to achieve this goal.

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Afterlife Encounters: Ordinary People, Extraordinary Experiences by Dianne Arcangel. Hampton Roads, Charlottesville, VA, 2005. 332 pp. \$15.95 (paper). ISBN 1-57174-436-3.

Some weeks after 9/11, Dianne Arcangel was waiting to meet a bereaved family at Ground Zero when she noticed an elderly gentleman. "He kept glancing towards the ruins and then staring into my eyes" (p. xiii). She approached and he said, "Would be intolerable if I hadn't been here before . . . it happened." He said that his deceased wife had come to him beforehand and showed him the scene on a big screen. He first thought that he was reliving something from World War II, but then a closer look told him it was something else.

In the course of her work as a hospice chaplain, director of the Elisabeth Kübler-Ross Center of Houston, and the Gateway Center in New York, Arcangel noticed that an afterlife encounter may not only bring comfort to the survivor but also spiritual evolution. Arcangel's exploration began early, the first day of first grade. The teacher asked the children to tell the class something about themselves and their family. A boy volunteered, "My grandpa died and then he came into my room and went by my bucket of—" (p. 2). The teacher interrupted telling him not to be silly and to sit down. When Dianne sought him out afterwards, he said that he saw his grandpa by his bucket of toys, "He smiled and waved at me and I smiled and waved at him. Then he left" (p. 3). After Dianne