

Book Reviews

Vitamin C & Cancer.

Discovery, Recovery, Controversy

Abram Hoffer, M.D., Ph.D., FRCP (C)

Softcover. Quarry Health Books,

Kingston, ON. 268 pages, 2000, \$19.99

Vitamin C and Cancer is the newest book from Dr. Hoffer and adds to a small but vital public literature on the subject. The interest in using vitamins to treat cancer began with Ewan Cameron's 1966 book *Hyaluronidase and Cancer* and his 1979 book *Cancer and Vitamin C* written with Linus Pauling. Dr. H.L. Newbold added to the literature writing a personal account of his experiences in nutritionally treating cancer patients in *Vitamin C and Cancer*. Despite the great combined experience of these authors, there was one physician, Abram Hoffer, who had accumulated a vast database of clinical experience using vitamin C over many years, but until the publication of this book, this information was not known to the general public.

Hoffer begins by recounting a conversation he had with Linus Pauling about his own clinical experiences with cancer patients. Hoffer believed he had confirmed Pauling and Camerons' original Scottish Vale of Leven vitamin C trial of 100 cancer patients. Pauling urged him to complete a followup study and apply a novel statistical technique—the Hardin-Jones biostatistical method—to augment the conclusions of Cameron's original study. Pauling (who died in 1994) and Hoffer coauthored the present book from this original data, but due to certain circumstances Dr. Hoffer is listed as the official author while he gives full credit to Pauling in the body of the work.

The book deals at length with the nature of cancer, its genetic basis in oncogenes activated through radiation and carcinogen-induced mutations. Not all malignant cells, however, take root as cancer. The state of the body's immune defences, endogenous antioxidant systems as well as the reductive potential of supplementary nutrients are key in deciding

whether cancer takes hold and develops. Even if a malignancy develops, Hoffer estimates that perhaps 50% of those with advanced cancer can be cured if orthomolecular program is implemented, and if orthomolecular treatment was started at the time of diagnosis, cancer death rate could be reduced to 25% of the present rate. If used preventively as well as clinically the cancer death rate would likely fall to 1/8 of the present level resulting in 385,000 lives saved per year.

The Nutritional or Orthomolecular Medicine section describes the basic biochemistry of fats, carbohydrates and protein, along with the functions of vitamins and minerals and RDA (deficiency disease preventing) and orthomolecular (optimum health promoting) dosages. Vitamin C has many antioxidant, detoxification, anticancer and antistress qualities which make it a cornerstone for prevention or for those who already have cancer and want a fighting chance at survival. In such situations, vitamin C also has the valuable effects of decreasing the toxicity of chemotherapy and radiotherapy. Vitamin B₃ also has preventive and anticancer properties and has been shown to increase the sensitivity of tumors to radiation. Other nutrients such as vitamin E, the carotenoids, selenium, zinc and copper are also discussed. Another interesting finding is the relationship of high copper to zinc ratios in cancer incidence. Patients with cancer usually have elevated serum copper, elevated ratios of copper to zinc and may have low zinc levels. The higher these copper/zinc ratios are, the more malignant the disease appears to be.

Hoffer and Pauling outline the basis of their program based on the accumulated experience of the many patients Hoffer has treated. This treatment is for all cancer patients and is best applied as an adjunct to *appropriate* conventional treatment. The criteria used in considering conventional therapy is whether sufficient evidence exists to conclude that a given therapy has a high probability of increasing the patient's

lifespan to a degree that would be preferable to the severity of the side effects involved. Surprisingly, there are several chemotherapeutic regimes for specific cancers for which the evidence points to a shortened lifespan and yet these drugs are routinely given because, as one oncologist put it, "patients and families expect some kind of treatment to maintain hope."

The actual orthomolecular regime consists of proper junk-free nutrition, weighted to increased consumption of fruits and vegetables and supplementation with B-complex vitamins, vitamins A and E, large dosages of vitamin C (3-40 grams per day) and vitamin B₃ (1-3 grams per day). This simple, palatable program should be followed consistently from the day of diagnosis and for the rest of the patient's life. Faith, therefore, is important as motivation and resolve is needed to stick to a treatment which is likely to be self-prescribed.

Hoffer describes how his involvement in cancer treatment was an outgrowth of his psychiatric practice. In the early years when some cancer patients with depression were referred to him, they were given vitamin C and B₃ and they appeared to become more resilient and live longer despite their cancer. Over time Dr. Hoffer's referrals from other doctors increased when it became known how much better these "incurable" patients seemed to do under his care. Between 1976 and 1988 there were a total of 134 patients treated and Hoffer determined the effectiveness of the program through the natural course of the disease as determined through historical controls as well as those patients who did not follow the orthomolecular program. Hoffer offers compelling arguments as to why this method is preferable to standard double-blind placebo controlled trials. The difference between Hoffer's two groups is significant. In the first year, 75% of the group who did not follow the orthomo-

lecular program died whereas only 25% of the orthomolecular group died. At the end of the fifth year on the program 39% of the orthomolecular group were alive, whereas all those from the control group had died. The compared average survival time of the two groups was 42 months vs 15 months. Subsequent followup studies showed that even after 10 years, 17 of the original 101 on the orthomolecular program were still alive.

Hoffer has also considered the quality of life as a measure of treatment effectiveness and from the feedback from patients and their families there is no doubt that patients following the orthomolecular regime recovered from cancer surgery faster with fewer complications, had far fewer side effects from chemotherapy and enjoyed more robust health and less depression and anxiety than those on conventional therapy. Case histories of all the patients on the program are divided into the common cancer types and a brief description of the nature and incidence of the particular cancer is given along with each patient's clinical outcome using the orthomolecular program.

In the section entitled Controversy, the cancer industry and orthomolecular medicine is examined. Dr. Pauling observes that the vast cancer research and treatment bureaucracy has a historical resistance to new ideas. The leaders of the top organizations such as the National Cancer Institute and National Institute of Health are familiar with each other and interlock on many committees and panels. In general, they rise to this height professionally because they see eye-to-eye on the big questions of cancer causes, acceptable treatments, and support for drug research rather than natural prevention methods. Also discussed are the difficulties faced by patients willing to question sanctioned treatments, from discouragement from

their doctors to family hostility. With no official support or insurance coverage, patients must pay for their orthomolecular defiance and sift through the plethora of natural remedies offered. Hoffer closes with some novel remedies to give new therapeutic ideas a fighting chance in the medical establishment.

The book concludes with appendices outlining the technical aspects of the Hardin-Jones methodology and an explanation of the rationale for its use in orthomolecular medicine. Dr. Hoffer includes a paper outlining his hypothesis on the adrenalin-adrenochrome system and cancer. Based on his clinical experience with both cancer and schizophrenia, Hoffer proposes a treatment program based on this theory.

The publication of this book represents a confirmation and extension of Cameron's early work with cancer patients. It improves on the earlier work as Hoffer and Pauling have written with both patients and clinicians in mind. Newly diagnosed cancer patients facing the vast oncologic bureaucracy would gain great advantage by reading this book and offering a copy to their health care provider.

—Greg Schilhab

Textbook of Nutritional Medicine
Melvyn R. Werbach MD. Third Line
Press, Inc. CA. 737 pages, 74.95.

This is Mel Werbach's seventh book, and like his previous six books maintains a very high standard of scholarship. It is encyclopedic in its depth and breadth. For example on the section on atherosclerosis beginning on page 119 to 152 with ten pages of references he covers dietary factors such as obesity, lipids, essential and others, trans fatty acids and nutritional factors, including those that decrease the odds for having a heart attack. This one section alone contains enough material for a series of up to date lectures on hardening of the arteries, and coronary disease. But this section is only one from a large list of diseases

from Acne Rosacea to Vertigo.

His section on schizophrenia is complete. Sadly, the current interest in psychiatry for using vitamin B₃ for this disease is so low that he accurately reports its use is controversial. The word controversial reminds me of a letter I received many years ago from the Minister of Health of the Province of Saskatchewan. I had written a two page letter telling him about a chronic schizophrenic girl I had taken into our home from one of his worst mental hospitals in 1952 and how within two years she had become normal and had worked steadily on the cleaning staff of the University Hospital in Saskatoon. She had been in that mental hospital for 13 years. I pointed out to him that I had saved his province nearly one million dollars in costs, that instead of being a public charge she had been productive and had paid income tax. He wrote back that he had consulted with the Saskatchewan Psychiatric Association and the Saskatchewan Medical Association and these august bodies had told him that my treatment was controversial. Maybe that was his polite way of saying that they thought it was a lot of nonsense. I had hoped that the minister, whose job it is to protect the health of his people, would override the negative opinions of these groups and order them to investigate the treatment. The word controversial frightens many people. I suppose it is based on the age old defenses that doctors use in court, that what they did was commonly used i.e. not controversial.

The first section of the book, 31 pages, is a discussion of the general principles of nutrition as applied to medicine. It is a good introduction.

It is impossible to adequately review a massive book such as this. I sampled it here and there and what I read, I liked. Thanks Mel; you have produced another major contribution to the medical scientific literature. Readers who have any of Mel's previous books will want to add this one to their library.

—A. Hoffer, M.D., Ph.D. FRCP(C)

Syndrome X. The Complete Nutritional Program To Prevent and Reverse Insulin Resistance

Jack Challem, Burton Berkson, MD, PhD,
Melissa Diane Smith. John Wiley & Sons
Inc, New York, NY, 272 pages, 2000, \$24.95.

The authors define Syndrome X: It is present in patients who are insulin resistant, are overweight, usually with a pot belly or beer barrel type of obesity, have high blood fats and high blood pressure. It is probably a special case of what was many years ago called the "Saccharin Disease." When I became interested in nutrition and psychiatric disease it was known as hypoglycemia, or relative hypoglycemia, or insulin resistance, and perhaps is now called type two diabetes where patients do not need insulin. The early nutritional literature was full of books on relative hypoglycemia.

The cause is our food, which is no longer the diet to which we had adapted over millions of years. We suffer from a basic maladaptation to modern high technology food and diets. Until about 9000 BC our diet consisted of meat, fish, vegetables, fruit, nuts and seeds. This is the Paleolithic or the Stone Age diet. We became omnivores and ate everything that was edible. Since there was no other choice, we did not have to be intelligent, merely smart enough to avoid foods that made us sick.

With the development of agriculture and modern food chemistry and technology, especially over the past fifty years, our food has been almost totally corrupted to the point that random choice of foods available in supermarkets today is bound to make most people sick. The main problem, described by these authors, is the superabundance of the simple sugars such as glucose, fructose and carbohydrate foods which on digestion release too much and too quickly these sugars. The average North American probably consumes about 150 pounds of free sugars. The diet is also characterized by too much fat of the wrong type, by too little complex carbohydrate or fiber, and by a defi-

ciency of nutrients such as vitamins and minerals. The excess of too readily digestible sugars creates the insulin resistance. The sugar is also harmful because it helps create free radicals which are implicated in aging, in heart disease, in cancer, and in inhibiting the activity of the immune system.

The solution—and this is what this book is all about—is to return to the general principles of the Stone Age diet by markedly reducing the consumption of the sugars and undesirable carbohydrates, by improving the intake of the essential fatty acids, while decreasing total intake of corrupted fats and by using supplements as widely as possible. Challem and Berkson also discuss other antioxidants such as alpha lipoic acid, and give particular attention to vitamins E and C. Minerals such as zinc and magnesium are especially relevant. The authors are concerned about the consumption of drugs such as the statins, the calcium channel blockers, weight loss drugs and anti-diabetic drugs.

The book includes a chapter on how to survive restaurants and the supermarkets. In supermarkets for example, one can shop with greater safety around the perimeter but it is much more hazardous in the middle of these enormous stores with 20,000 items, mostly made from few foods and converted into what I have called artifacts. I would have liked to have seen included a section on how to survive modern hospitals. There is a lot of very good material in this book and I recommend it, especially for physicians who will be able to help so many more of their patients.

—A. Hoffer MD PhD FRCP(C)

The Anti-Depressant Survival Program

Robert J. Hedaya, MD

Crown Publishers, New York, NY.

292 pages, 2000

I like this book on depression and how to become well with minimal side effects when antidepressants are needed. For many decades I have been convinced that to treat

depression adequately, i.e. to full recovery, one must pay attention to a large number of nutritional, physiological and medical problems, and that one cannot depend only on drugs even though they are very helpful. There are many good books that describe which antidepressants to use, how to use them, what are their side effects, but these books ignore the nutritional and other factors. Most of these are written by orthodox physicians. There are also many good books written about the nutritional, physiological and biochemical components of depression and ignore the value of the xenobiotic antidepressants. Most of these are written by non-medical writers. I have often wished that the whole spectrum of treatment would be described in one book where the proper use of antidepressants is dealt with, the side effects and toxic properties described, advice given how to minimize them, and where proper attention is given to food, to allergies, to digestion, to the hormones such as thyroid, and to the vitamins and other nutrients that do play a significant role. At last we have it; this book by Dr. Hedaya fulfills my wish.

In brief, his prescription for health, for a condition free of depression, includes a balanced diet (which he defines as free of junk food and which I call orthomolecular), a balanced fitness or exercise program, a balanced psychological program including stress reduction, spiritual development, pleasure in life and normal sexual responsiveness. From the medical point of view he discusses the major hormones which influence mood and energy, thyroid and adrenal glands. In his discussion of thyroid he points out that the balance between T4 and T3 is important, something overlooked by many authors. He also discusses the vitamins and minerals and other nutrient factors that play a role and finds that hair analysis for minerals is very helpful. Omega-3 essential fatty acids are recognized to help control mood and even in stabilizing bipolar mood disorders. Folic acid and vitamin B₁₂ are recognized as very important in dealing with de-

pression. In this Dr. Hedaya anticipates some of the work which is emerging such as the recent study showing that large doses of folic acid (up to 50 milligrams) daily are very effective and for many may be much more effective than the standard antidepressant xenobiotics.

Dr. Hedaya points out the importance of the doctor-patient relationship and urges patients to take on a much more active role. Dr. Hedaya bases his conclusions on many years of clinical experience treating depression. Every orthomolecular psychiatrist will attest to the value of this kind of a program. I am grateful for this book which puts it all together so easily and so well. Both orthodox and orthomolecular therapists will find this book very helpful in their practice.

—A. Hoffer, M.D., Ph.D., FRCP(C)

Lifting The Bull. Overcoming Chronic Back Pain, Fibromyalgia & Environmental Illness by Diane Dawber, Quarry Press Inc, Box 1061, Kingston, ON K7L 4Y5, Paperback, 169 pages, 1997

Some time after they have completed their medical training and have their own practice, physicians learn about pain and suffering when they listen to their patients. Until then the type of chronic pain endured by patients with fibromyalgia is only theoretical and often not believed, especially by insurance companies. I find that often insurance companies will accept the diagnosis of chronic depression but will not accept the diagnosis of chronic fatigue syndrome or fibromyalgia even though the pain and suffering from this condition is equal if not greater than the pain and suffering experienced by the person with chronic depression. Doctors learn from anecdotes. This book by Diane Dawber is a superb anecdote, a classic account of one person's descent into the hell of chronic pain and how, with immense

courage and resourcefulness and with the help of a large variety of therapies, she manages to start on the road back to normality.

In the first half of the narrative, Dawber describes her descent into illness and the various therapeutics to which she was exposed in an attempt to obtain some relief. These include physiotherapy, yoga, acupuncture, psychotherapy, meditation, iridology and endocrinology. When the cause or causes of a disease are unknown, there are many proposed causes and each will have proponents and physicians who believe they may be helpful. Many patients like Dawber are considered merely depressed and referred to psychiatrists where they may receive psychotherapy and surely will receive an antidepressant, most commonly amitriptyline. The referral to psychiatrists is often used when the physician believes that there is really no such disease and that the patient is depressed. However in my experience most depressed patients do not suffer this type of chronic physical pain. A depressed person's pain and anguish is just as bad and hard to deal with as fibromyalgia and chronic fatigue, but their's is at the emotional level.

The chronic pain endured, and finally Dawber decided to take a much more hands-on treatment policy. If the many therapists were not able to help, maybe she could do better on her own while seeking help from a different set of physicians. She began to research nutritional therapy, food and other allergies, the rotation diet, osteopathy, hormones, and even sauna depuration. The latter is also known as Hubbard's Detoxification. Gradually she began to improve. In the Afterword she writes, "Allopathic surgical and pharmaceutical medicine is great in a crises of injury or attack by microorganisms. It can keep you alive to fight another day, but its emphasis on the critical care mode of squashing symptoms makes it ill-suited for long-term problems. Naturopathic or environmental medicine might not be able to offer instant solutions, but it is developing wonderful strategies for listening to the body's symptoms as it responds to its

supply of air, water, food and toxic add-ons. The ideal would be to have both allopathic and orthomolecular medicine available and working together in complementary fashion. The possibilities are exciting"

Read this odyssey of a patient who failed to respond to a variety of more or less standard therapies, and only began to recover when she adopted the new ideas and therapeutics of a new paradigm in medicine.

—A. Hoffer, M.D., Ph.D., FRCP(C)

7 Weeks to Emotional Healing

Joan Mathews Larson, PhD. Ballantine Publishing Group, Random House Inc. New York, 75 pages, 1999. \$24.00.

For the past twenty years Dr. Larson has treated alcoholics and drug addicts with orthomolecular methods. About 75% of the alcoholics she treated remained alcohol free. This is an amazing record, and as far as I know unsurpassed. It is therefore very important that her work be taken seriously. Her view is that alcoholism is a disease, not a way of life, and if the underlying physical problems are treated properly the outcome will be much better. In this book she reports that the same general approach will help people who are not addicted or alcoholic but who suffer from a variety of emotional diseases such as anxiety states and depression.

This book covers the entire gamut of orthomolecular treatment from assessing allergic reactions to foods and other chemicals in our environment, to the importance of nutrition, hypoglycemia, the use of nutrients in optimum amounts, and chronic infections such as candida. I was very happy to read her section on hypoglycemia. It is a long time since anyone has really reviewed this condition. I suppose this is because the term has been usurped by the term Type II diabetes. I consider Type II diabetes a late stage of relative hypoglycemia.

Forty years ago, in the days of the pio-

neers such as Carlton Fredericks, the term hypoglycemia was anathema to physicians who maintained that there was no such disease or condition; it only indicated the depths to which quacks would descend. Carlton Fredericks' books were very popular but reviled by the establishment. For a while calcium solutions (Calphosan) were injected as part of the treatment but it soon became very dangerous for doctors to use it lest they lose their license to practise. Calphosan was taken off the market, except for veterinary surgeons, by an aggressive FDA in the United States. But relative hypoglycemia was solved and disappeared from medical literature by renaming it. It became very acceptable to the establishment as Type II diabetes. The old treatment consisted in providing proper nutrition, paying attention to the balance between protein-rich and carbohydrate-rich foods. The new treatment pays some attention to nutrition but depends more on oral hypoglycemic agents. I am not sure which is the better program. As I recall, I saw as good results with proper diet alone without the use of these drugs.

There is no doubt in my mind that almost every alcoholic suffers from hypoglycemia. I tested many hundreds over a period of years and did not find one with a normal 5 hour glucose tolerance test. This raises another question. These long tests are no longer being used as too many doctors are content with one or two stab samples. They therefore miss the many cases where the low blood sugar occurs after four, five or even six hours. In laboratories in cities where I practised it became unfashionable to do these because it was inconvenient for the technicians as they would have to stay over lunch or late into the afternoon.

By paying attention to the effect of poor nutrition, by searching for other complicating factors such as excesses or deficiencies, and by providing a refuge in which this comprehensive treatment could be started, Dr. Larson provides the best possible therapeutic

setting for her patients from which they could go back into society with a 75% success rate. I think this is a great program. But to understand and to follow the program you will have to read the book.

—A. Hoffer, M.D., Ph.D., FRCP(C)

The Botanical Pharmacy. The Pharmacology of 47 Common Herbs.

Heather Boon, Michael Smith
Quarry Press Inc. Kingston, ON,
320 pages.

This is another Quarry Press book which I especially recommend to the members of the healing professions, even to doctors who have no interest in herbs, for they are going to find more and more their patients will ask them about the herbs that they are already taking. For a physician like myself it is very valuable. I had no training in the use of herbs and have only become interested in the past ten years. My collection of books about herbs is still small and this book will expand my access to information a good deal. I now have an authoritative book I can refer to when one of my patients asks me about these therapeutic products. I had seen some of the pre-publication information prepared by Dr. Michael Smith and was impressed; I am even more so now. I was not fully aware of how large is the literature on herbs. For example, in the description of ginkgo the authors list 159 references. It is indeed a useful pharmacology of many common herbs.