

Understanding Cancer and Natural Therapies

by Reagan Houston, MS, PE(C)

We have a general understanding of cancer. One-third of cancer patients die in five years.¹ Some patients die in pain. Every day, we read that new therapies are coming soon; gene therapy is the answer; radiation and chemotherapies are improving rapidly; and stem cells show promise, so send more money. Unfortunately, much of this hype is hypocrisy. But regular therapies are fairly good: two-thirds of patients live five years.

What could be more natural than helping the body fight cancer?^{2,3} Our bodies have been doing this for thousands of years. Vitamins have demonstrated that they can strengthen the body's immune system to improve regular therapies and safely kill cancer. The big question is *why are we not using vitamins now?*

Successful Natural Therapies

When we get cancers, our bodies are usually weak, but vitamins can help strengthen us and even kill cancers. For example, in 1971, Ewan Cameron, MB, ChB,^{2,4} and Linus Pauling, PhD, started exploratory clinical tests with vitamin C on many types of terminal and hospitalized cancer patients for whom more radiation or chemotherapy would not be helpful. Of their first five patients, four with bone pain obtained major pain relief in about ten days. Of the first 1,100 patients, the 100 vitamin-treated ones lived 4.2 times as long as the controls. All 1,000 of the matched controls died in one year, while 14 of the vitamin patients were still alive. Dr. Cameron treated breast, colon, kidney, lung, stomach, and lymph cancers. The 10,000 mg/day initial dose of sodium ascorbate that he generally gave (either orally

or intravenously [IV]) was helpful for his patients because they continued an oral dose for years. Many of these bedridden patients recovered enough to return home.² This recovery is highly encouraging and indicates a safe and simple therapy. Dr. Cameron has treated over 1,000 cancer patients.

Dr. Cameron² reported, "Giving vitamin C in large doses to patients with advanced cancer produces subjective benefit in almost every patient by about the fifth day. The patient will claim to feel better, stronger, and mentally alert. Distressing symptoms such as bone pain from skeletal metastases diminish and may disappear completely."

Abram Hoffer, MD, PhD, FRCP (C),^{5,6} started a 15-year clinical test in 1978, using oral vitamin C plus other vitamins and minerals. He recommended that patients continue working with their oncologists. He prescribed a diet low in meat, very low in sugar, but high in fruits, vegetables, and water. He varied his regimen as summarized in Table 1.

Table 1: Dr. Hoffer's Regimens

	Early Regimen	Later Regimen ⁷
Vitamin C range	12,000 mg. 3,000 to 40,000	12,000 mg 3,000 to 40,000
*Vitamin A	10,000 to 50,000 IU	
*Beta carotene	30K-75K IU	30,000 IU
Vitamin B	B-50 to B-100	1 or 2 of B-100
Vitamin D-3	5,000	to 19,000 IU
Vitamin E	300 IU	
Vitamin E succinate		800 IU.
Selenium	600 mcg	400 to 600 mcg
Zinc as citrate	60 mg	60 mg
Coenzyme Q10		300 IU
Curcumin		300 mg
*Bioperin		15 mg
* Optional		

The vitamin C can be taken as ascorbic acid, sodium ascorbate, calcium ascorbate (ester-C), or a mixture. Pills should be taken in three or four divided doses, preferably with

meals. Alternately, vitamin C may be taken as powder dissolved in water. The dose of vitamin C should be built up over a week or two to minimize diarrhea and allow the body to adjust. If the patient has a large amount of cancer tissue, vitamin C should be built up more slowly. Vitamin K-3 and alpha lipoic acid⁸ could be included. Dr. Hoffer's regimen may include items that are or seem to be unnecessary, but it has been used successfully for over 25 years. Dr. Hoffer's regimen is safe and helpful even during radiation and most chemotherapies.^{2,3,5,8-10}

Dr. Hoffer ran his early test on 134 patients with 30 types of advanced cancer. Most of his patients had failed prior surgery, radiation, and/or chemotherapy as prescribed by their oncologists. Some patients continued these therapies. Those who refused vitamins lived a median of only 29 months. The 101 who accepted vitamins lived 64 months after diagnosis (see Table 2). All 33 of the very sick breast cancer patients had surgery, radiation, and/or chemotherapy. The median life of these breast cancer patients who chose to take vitamins was 67 months, while those without vitamins lived only 28 months.

Table 2: Median Survival of Dr. Hoffer's Patients, Months

Type of Cancer	With Vitamins	Without Vitamins
Breast	67	28
Colon	90	25
Lung	41	11
Ovary	48	13
Pancreas	75	6
Uterus	78	36
All 30 Types	64	29

To all of his cancer patients, Dr. Hoffer offered the vitamin regimen, diet, and hope based on positive



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▶ results with earlier patients. Those who accepted vitamins thus had three advantages over those who rejected vitamins. Self-selection is typical of real life but not ideal for statistical evaluation. However, self-selection and the placebo effect would hardly explain the large differences in survival times. Dr. Hoffer obtained good results with oral-only vitamin C apparently because he included a diet low in glucose and processed carbohydrates, high-dose vitamin C in divided doses, and supplements that helped vitamin C kill the cancer.

Is vitamin therapy sufficient to control cancer without surgery, radiation, or chemotherapy? Table 3 describes the results of patients – of Dr. Hoffer's initial test group of 134 patients – who avoided radiation and chemotherapy, although many had surgery. With only 44 patients involved, a trend is indicated but not demonstrated.

Table 3: Median Life of Patients Who Refused Radiation and Chemotherapy, Months^{5,11}

Therapy	With Vitamins	Without Vitamins	No. of Patients
No surgery	42	5.2	15
Surgery only	68	8	29
All patients	64	29	134

Dr. Hoffer has treated over 1,300 cancer patients, often starting treatment when radiation and chemotherapy had failed. His therapy appears to help the most aggressive types of cancer, such as lung and pancreas cancer, more than slower-growing cancers, such as breast cancer. After years of experience, both Cameron and Hoffer found that vitamin C does not lose its effectiveness, as does chemotherapy. Dr. Hoffer² reports, "I have no doubt that the megavitamin program has improved the quality of their life. It has given them more energy, has improved depression and anxiety, has created a sense of well being, has eased pain, and has often eliminated pain entirely."

Based on the results of Hoffer, Cameron, and Pauling and others, the therapy for cancer is summarized in Table 4.

Table 4: Summary of Cameron's and Hoffer's Therapies

1. Administer vitamin C as ascorbic acid or metal ascorbates at dosages of at least 10,000 mg/day and preferably more to almost cause diarrhea. The dose should be continued as long as the patient is alive but can often be reduced after several months of use.
2. The dose should be divided and taken preferably with food three or four times a day.
3. Sugar and glucose-forming foods should be carefully limited as excess glucose negates the effect of vitamin C.
4. Patients who have had chemotherapy should use Dr. Hoffer's multivitamin regimen rather than Cameron's regimen.

Vitamin C Is Safe

Many people have taken 30,000 mg/day for years. Some doctors¹² have given 200,000 mg/day by IV. Some claim that vitamin C "might" cause kidney stones, although doctors^{2,5} who give large doses of vitamin C rarely see stones in their patients. Ascorbic acid can make the urine acidic enough to dissolve some stones.

Excessive vitamin C can cause diarrhea. People with cancer can frequently take and need oral vitamin C at 30,000 mg/day, while well people have a typical limit of 3,000 to 10,000 mg/day. If people on therapeutic doses of vitamin C develop diarrhea, the dose should be reduced. Actually, diarrhea is a useful indicator, because it provides a simple measure of the proper dosage for each individual. Hoffer's patients, who took from 3,000 to 40,000 mg/day, illustrate the wide range of dosages suitable for individual cancer therapy. Humans cannot make the vitamin C they need, although most animals can. A 160-pound goat^{2,3} can make 13,000 mg/day or up to 100,000 mg/day if under great stress. Thus, 12,000 mg/day becomes a reasonable dose for people with cancer.

Table 5 includes some of the precautions, side effects, and alternatives listed by Casciari¹³ and others. However, Cameron and Hoffer did not report that they followed the precautions in step 5, regarding the deficiency of glucose-6-phosphate dehydrogenase enzyme, or step 6.

Table 5: Precautions with High-Dose Vitamin C

1. Build up the dose slowly by about 1,000 or 2,000 mg/day to minimize diarrhea and other problems. Be careful if there is a large load of advanced cancer.
2. If necessary, decrease the dose slowly to allow the body to adjust.
3. Vitamin C – especially ascorbic acid – may cause gas, upset stomach, or skin itch. If these problems occur, consider using sodium ascorbate or calcium ascorbate.
4. Excess sodium intake from sodium ascorbate is possible. Consider using potassium ascorbate or ascorbic acid.
5. Some people have a rare deficiency of glucose-6-phosphate dehydrogenase enzyme and large vitamin doses may cause acute anemia.
6. Patients should be checked for renal insufficiency, chronic hemodialysis, unusual forms of iron overload, calcium buildup, and oxalate stone formation.
7. For their own safety, people should work with a doctor knowledgeable about vitamins.
8. Some people may not be able to use high doses of vitamin C.

Other Researchers and Patients

Tests by ET Creagan, MD,¹⁴ and CG Moertel, MD,¹⁵ with 10,000 mg/day of vitamin C showed that vitamin C did not always control cancer. By not following the proper regimen, they showed that not all regimens work. Creagan chose patients who were debilitated by chemotherapy, and Moertel administered vitamin C for only 2.5 months of a 14-month test.

The author¹¹ used Dr. Hoffer's therapy for his aggressive prostate cancer. After 11 years, his aggressive prostate cancer is in remission with essentially no side effects. Bill S. had non-small cell lung cancer, stage IIIB, and a prognosis of eight months, or 11, if he underwent chemotherapy. He told his oncologist he planned to use vitamins, and the doctor agreed to cooperate. Bill chose Dr. Hoffer's regimen, other supplements, and limited chemotherapy. He did not choose a low-sugar diet. Even so, he lived 24 months instead of 11. Joe K.'s¹⁶ prostate cancer was first treated by surgery and radiation. When it returned to his pelvic bone, his doctor estimated he had one year of life left. Joe chose Dr. Cameron's therapy: a low-sugar diet and high-dose vitamin C. When cancer appeared in his lung, he increased his vitamin C to 80,000 mg/day or even more during extra stress. To the best of my knowledge, he lived eight years instead of the expected one year.

Vitamin C administered intravenously by Hugh Riordan, MD,^{13,17}

and others has been very helpful based on clinical tests, but the cancer can grow between sessions of IV vitamin C unless oral vitamin C is given also. Patients taking IV vitamin C should be checked for a deficiency of glucose-6-phosphate dehydrogenase¹³ as this can cause anemia. Dr. Cameron did not mention this test, and Dr. Hoffer⁸ found this test to be unnecessary. Hoffer's success shows that IV vitamin C may be unnecessary and obviously inconvenient.

Basic Science

Steve Hickey, PhD,⁸ reports that cancer's main aim is to grow faster and mutate toward still faster growth. By the time that the cancer is metastatic, growth has extensively changed many of the normal genes. Cancer cells change from normal diploid to strange-looking polyploid cells with unusual numbers of chromosomes. Genes that accelerated or slowed cancer growth may now have entirely different functions. Cancer may learn to hide from cancer drugs² or resist radiation. No wonder that some of the original therapies no longer work with advanced cancer.

The National Cancer Institute¹⁸ in 1969 and the National Institutes of Health¹⁹ in 2005 reported that ascorbate oxidizes readily to dehydroascorbate (DHA). DHA is structurally similar to glucose and competes with glucose to enter cancer cells. Inside the cancer cells, the DHA reacts to form ascorbate and hydrogen peroxide. The peroxide then oxidizes and kills cancers. With sufficient ascorbic acid and a reduced amount of glucose, more DHA is taken in, and vitamin C should be more effective at killing cancer. As noted earlier, clinical tests on many types of cancer confirm this lab data.

Functionally Similar Cancers

Advanced cancers of essentially all types voraciously consume glucose as their primary food.^{2,5,8} All types of advanced cancers apparently become *functionally similar* with regard to food. Cancers are also functionally similar in that patients are weak^{2,3}

when diagnosed. This is shown by their low serum ascorbate levels. Weakness does not identify cancer, but the therapy – increased vitamin C intake – is helpful to most patients. Normal, healthy people have an ascorbate level of 0.7 to 1.4 mg/dL. When diagnosed, cancer patients usually have ascorbate levels of 0.1 to 0.4 mg/dL. *That is one-tenth to one-half of normal.* At these low levels, some of the white blood cells cannot function properly. Neutrophils and monocytes,^{5,8} if they have enough ascorbate, carry hydrogen peroxide, and these cells can inject peroxide into cancer cells to kill them. One man¹² on 150 grams/day of vitamin C in divided, oral doses had an ascorbate level of 35 mg/dL.

Many types of stress can lower the serum ascorbate. One MD student⁵ was getting his serum ascorbate measured regularly. After a nasty spider bite, his ascorbate measured zero, so he immediately got an injection of *15,000 mg of sodium ascorbate.* (Don't try this at home!) For the next four days, he again had zero ascorbate and received another 15,000 mg injection. On the fifth day, the spider bite was better, and the student's blood showed ascorbate

Therapy Choices

When a patient is diagnosed with cancer, the doctor has many choices: watchful waiting, surgery, radiation, chemotherapy, hormone treatment, and gene therapy. What is usually missing is the natural help of our bodies. At diagnosis, most patients are low in serum ascorbate, so vitamin C therapy is obvious. Unfortunately, this is rarely the doctor's choice. In fact, many doctors request that patients avoid vitamins or get them from their diet. Diet cannot provide the vitamin C that Cameron used: you'd need to drink 12 gallons of orange juice to gain 10,000 mg/day of vitamin C!

Clinical tests have demonstrated that antioxidants such as vitamin C generally make surgery, radiation,

and chemotherapy more effective and less painful. Even though vitamin C is not an approved therapy for treating cancer, I strongly suggest that cancer patients, with proper medical guidance, strengthen their bodies with Dr. Hoffer's multivitamin therapy.

To the therapies listed above, I would add Cameron's and Hoffer's vitamin therapies. Both cancer and regular therapies weaken the body. Watchful waiting is a poor choice – why wait until the flames come out of the window before calling the fire department? Patients should at least strengthen their bodies with a proper diet, vitamins and supplements, exercise, no smoking, and a better lifestyle. Call this active watching.

With well-known cancers, vitamins can be a helpful addition to lengthen lives, reduce pain, and perhaps reduce the amount of chemotherapy needed. With rare or advanced or terminal cancers, vitamins are particularly advantageous. Oncologists have a tendency to prescribe chemotherapies when the patient is too sick and too advanced to benefit but the doctor feels something should be done.

Why Aren't You Getting Vitamin C Now?

Vitamin C for cancer therapy is not officially approved. Most oncologists cannot use unapproved cancer therapies because of state medical board regulations. Doctors uncertified in oncology cannot officially treat cancer, although they can treat cancer patients. Some doctors are trained in nutrition, but few are trained in nutrition as cancer therapy. Doctors who prescribe unusual therapies may be frowned upon by fellow doctors and receive fewer referrals from these doctors. Thus, doctors who recommend vitamin C therapy may lose stature and income. Also, vitamin therapy is less profitable to doctors than surgery, radiation, or chemotherapy.



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Official approval of a therapy is of less importance to patients than demonstrated results. Vitamin C is safe and effective, has been tested on many types of cancer, has a scientific basis, and is compatible with regular therapies. Cancer patients should realize the doctor's viewpoint. Doctors have little reason to prescribe vitamins and considerable reason to avoid vitamins. With the right attitude and push, patients can get the best of both regular and vitamin therapies. Fortunately, doctors, dietitians, and other health professionals can prescribe vitamins to *strengthen* patients with cancer. Vitamin C is accepted for strengthening patients.

Instead of asking doctors to recommend vitamins, patients who decide to use vitamins can tell the doctor they plan to use vitamins and ask if he will cooperate. The patient may say he plans to use vitamins for a month and then they can talk about other therapies. If vitamin C gives pain relief, the therapy is quite convincing to the patient. The patient may not have enough money or insurance for a full course of regular therapies. If the doctor is adamant against vitamin use, it may be time to select a new doctor or HMO. Patients who use vitamins for cancer therapy should work with proper medical supervision for their own safety and best results. Some patients may self-medicate, but they do so at their own risk.

Knowledge empowers patients to look at cancer as a problem of communication as well as medicine. Only when cancer patients push for vitamin therapy will the therapy be widely adopted. When the oncologist offers a placebo or a new, experimental chemotherapy, it is time to consider vitamins. Dr. Hoffer's multivitamin therapy is safe and effective and can be carefully used now.

Cure?

Unfortunately, vitamin C does not promise a cure, only longer life with less pain. Longer life is well-demonstrated for advanced cancers, but there is less information on early cancers. Pain relief and improved well-being is obvious in a week or two. Some patients are cured, but what definition should we use? Perhaps with more use and tests, multivitamin therapy may earn the title of cure. Cameron and Pauling predicted that if proper vitamins were added to regular therapies, the cancer death rate would be cut 25%. With Hoffer's improved regimen, 25% may be conservative.

Conclusion

Dr. Hoffer's regimen appears to help safely many patients with many types of cancer to live longer with less pain and essentially no side effects. The therapy might reduce or eliminate the need for chemotherapy. The author recommends that most cancer patients work with suitable professionals and take Hoffer's multivitamin therapy. Multivitamin cancer therapy will be widely and quickly adopted only if pushed by patients.

Note: The author, a research chemical engineer, was diagnosed eleven years ago with prostate cancer. His PSA, a measure of the cancer, had doubled in six months – a sign of aggressive cancer. He chose hormone therapy and Hoffer-type vitamins. After one year, he stopped two hormones but continued the Proscar and vitamins. He is in excellent remission with essentially no side effects and a PSA of 0.3. (A PSA of 4 or less is normal.) He never had nor needed surgery, chemotherapy, or radiation of any kind.

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Notes

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