How to live longer… and better… with the incredible cancer-fighting power of intravenous vitamin C

by Dr. Mark Stengler
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“Significant advances rarely came from within orthodox medicine… most were made by mavericks.”¹ This statement—spoken by a true pioneer in the use of intravenous vitamin C for people with cancer…Hugh Riordan MD—is as true today as when it was first uttered. And there’s no area of medicine that conventional medicine, and the pharmaceutical companies, have more of a stranglehold on accepted standards of medical therapy than the disease of cancer.

Surgery, chemotherapy, and radiation are the standard treatments when it comes to cancer. Sometimes they’re even beneficial. But they often come with brutal side effects, a poor track record for long-term survival, and a quality of life you wouldn’t wish on your own worst enemy.

Now, after decades of disappointing results and horrendous side effects, the American public has started to realize that there are alternatives, and more and more people are seeking Integrative Cancer Care. Doctors like me are incorporating a variety of nutritional and holistic therapies to improve patient outcomes and provide better quality of life for people with cancer. Intravenous vitamin C is proving to be one of the best all round Integrative Therapies.

The conventional medicine viewpoint has always been that cancer can’t be treated with holistic therapies. Tell that to the Chinese, Japanese, German and Swiss doctors who have been taking an integrative approach to cancer for decades now. By combining the best of conventional and natural healing methods—or in some cases natural therapies alone—they’re achieving better results with significantly less side effects than standard conventional care alone. Yet here in America, in the not-so-distant past, doctors have lost their licenses or have even been prosecuted by the U.S. government for choosing to use humane integrative treatments with their own patients.

Holistic therapies save lives!

Case in point, Stanislaw R. Burzynski, M.D., Ph.D developed a breakthrough treatment in which patients are given antineoplastons, peptides and amino acids taken from the human body that activate cancer-fighting genes. Even though Dr. Burzynski had great success with this treatment as demonstrated in clinical trials and confirmed patient cases (including patients who had terminal or difficult-to-treat cancers) he was attacked by the medical establishment for over a decade because his treatments were not FDA approved.

The good news is that an increasing number of doctors, including oncologists, are opening up to the idea of Integrative Oncology Therapy. It not only makes rational sense to support the body’s immune system and help the body to detoxify from conventional treatments, but also to use natural therapies shown to have direct anti-cancer effects.

Recently I attended a three-day conference with leading integrative doctors including oncologists. Most of the presentations focused on the use of intravenous therapies (substances given directly into the vein of a patient to bypass their digestive tract so higher, therapeutic doses can be used). The research provided was nothing short of astounding.

For years holistic doctors have noted the positive effects of nutritional intravenous therapies such as vitamin C on their patients. I myself have personally witnessed patients having better outcomes in terms of length and quality of life. However, little published data has existed to present to the medical world. Studies, especially good ones, require a lot of money to fund. But pharmaceutical companies, which by far have the deepest pockets when it comes to
funding research, don’t have an interest in paying for such studies since natural substances can’t be patented and will not generate huge stacks of cash.

But things are looking up and the tide is turning. Some high-quality studies have been completed, and many more are on their way. Much of the research presented at this three-day conference was on the exciting field of Intravenous Vitamin C (IVC) and I want to share some of it with you here. But first, let’s take a quick look at the history of IVC.

**Tens of thousands have already been helped with IV vitamin C**

The most famous proponent of vitamin C was Linus Pauling (1901-1994), a molecular biologist and the only person to ever win two unshared Nobel Prizes. Most agree he was one of the two most influential scientists of the 20th century.

Pauling published over 1000 books and articles, most on scientific subjects. He coined the term “orthomolecular” which means the “right molecules in the right concentration.” Orthomolecular medicine focuses on using natural substances such as nutrients like vitamin C to restore the optimum environment of the body by correcting imbalances or deficiencies. In orthomolecular medicine we often use doses much higher than what’s currently recommended by the conventional establishment.

Pauling, along with Dr. Ewan Cameron, former Chief of Surgery at Vale of Leven Hospital in Scotland, published research in the 1970’s demonstrating that IVC at a dose of usually 10 grams daily for 10 days, followed by daily doses of 10 grams orally in terminal cancer patients, led to an astounding 4-fold increase in life expectancy. Of course 10 grams of IVC is a fraction of the 50 to 100 grams that’s typically used for people with cancer today.

In 1979 Cameron and Pauling published their book, *Cancer and Vitamin C*, which described their clinical experience with vitamin C and cancer. What happened next was devastating. Researchers at Mayo Clinic conducted two studies using 10 grams daily of oral vitamin C in late-stage cancer patients. They never received Intravenous Vitamin C as the research by Cameron and Pauling indicated was needed. Their conclusion was that vitamin C had no statistical benefit. Linus Pauling diligently wrote rebuttal letters pointing out that the Mayo studies did not replicate his and Cameron’s research. Unfortunately, the medical community took the Mayo studies as conclusive evidence against the benefits of IVC and it has been shunned by conventional medicine until this day.

I mentioned Dr. Hugh Riordan earlier. He’s no longer alive, but his work continues on through the Riordan Clinic in Wichita, Kansas, which has used IVC to help tens of thousands of cancer patients. The research arm of the clinic has been conducting and publishing research on vitamin C for the past 15 years.

Dr. Riordan’s RECNAC (cancer spelled backwards) research team has published 20 papers on vitamin C and cancer. According to the clinic, “RECNAC data has shown that vitamin C is toxic to tumor cells without sacrificing the performance of chemotherapy.” In fact, the team has found that not only is IVC effective, it’s safe as well. Similar to my experiences with IVC, they state, “There have been no serious complications. The most common adverse events reported were nausea, edema, and dry mouth or skin; and these were generally minor.” You can read about their research at www.riordanclinic.org.

**Kick your immune response into high gear with IVC**

When you administer vitamin C intravenously blood levels of the vitamin can reach levels 70 to 100 times higher than oral vitamin C. This is important because oral vitamin C generally can’t reach high enough blood levels to effectively kill cancer cells. Research by the Riordan Clinic has found that tumor cells become susceptible to high dose IVC at plasma levels of 350 to 400 mg/dL.

Your immune system naturally produces some hydrogen peroxide in response to infections and cancer. High doses of IVC kick this natural process into high gear. Hydrogen peroxide acts as an oxidant, helping to destroy cancer and other foreign invaders. IVC augments what your immune system is already doing, making the process much more effective.
Normal healthy cells are able to neutralize the effects of hydrogen peroxide with an enzyme known as catalase. Since cancer cells lack this enzyme it leads to cell death. A study in the Proceedings of the National Academy of Science of the United States of America showed that IVC selectively kills cancer cells by delivering hydrogen peroxide to tissues.\(^7\)

High dose IVC also acts as an antioxidant, but this action appears to be a bit less powerful than its oxidant effect. As an antioxidant, however, vitamin C helps to control the inflammation that stokes the fires of cancer cell replication. While many conventional doctors are concerned about the antioxidant effect of vitamin C for patients undergoing chemotherapy and radiation (which produce a lot of oxidants), this concern seems largely unfounded in light of recent research. In addition, Naturopathic Doctor Paul Anderson has done extensive research on published interactions between vitamin C and common chemotherapy medications and other common cancer drugs. His research finds little in the way of negative interactions.\(^8\)

As Dr. Hunninghake from the Riordan Clinic has pointed out, conventional therapies such as certain chemotherapies and radiation work by increasing oxidation and inducing cancer cell death (apoptosis). However, they also damage the control mechanisms for cell death including the p53 gene which suppresses tumor formation. This allows therapy-resistant cells to thrive, while leaving your other cells with less control over cancer formation at the same time. He notes that IVC acts as an oxidative treatment helping to destroy cancer cells, while the gentle antioxidant effects of the vitamin protect and repair the cells so they have control over cell replication such as the p53 gene.\(^9\)

**Douse inflammation and lower your CRP levels**

Inflammation plays an important role in cancer formation and promotes the replication of cancer cells, their survival, and their migration throughout the body. One of the traditional blood tests for monitoring inflammation in the body is C reactive protein (CRP). In one study of over 274,000 people, about one third of deaths in a community were due to cancer. Those with an increased CRP had a higher risk of dying from cancer than from any other cause including cardiovascular disease.\(^10\)

Research also shows that your level of CRP is a good predictor of cancer survival.\(^11\) Research at the Riordan Clinic has found that a series of IVC sessions can lower CRP by approximately 75%. They concluded that this reduction in CRP correlated with a drop in tumor markers including the PSA in prostate cancer.\(^12\)

High dose IVC also aids in detoxification and improving cell energy function. More specifically it improves oxygenation of the cells. Cancer cells don’t do well in an oxygenated environment and IVC shifts cells to an aerobic (utilizing oxygen) environment instead of the anaerobic (without oxygen) state that leads to the creation of more cells.

1. According to Hunninghake, his research team has documented seven ways that IVC fights cancer. Hunninghake’s Seven Hallmarks of Cancer that IVC deals with are.\(^13\)
2. Self-sufficiency of growth signals
3. Insensitivity to antigrowth signals
4. Evasion of apoptosis (cell death)
5. Unlimited proliferation potential
6. Enhanced angiogenesis (blood-vessel supply to the tumor)
7. Tissue invasion and metastasis
8. Inflammatory microenvironment

**IVC therapy is extending lives… yours could be next**

One of the leading research institutions for studying the effects of IVC in people with cancer is the Bastyr University Integrative Oncology Research Center (BIORC), in Seattle. The Center opened in 2009, after receiving a grant from a man whose wife had died from breast cancer who wanted research to be done to find out if there was a better way to treat the disease. Since then, 521 cancer patients have been enrolled in a study series involving all stages of the disease. Originally patients were only from the Seattle area, but as word spread cancer patients from all over the country have come to the clinic to participate in the research.
The most common types of cancers seen at BIORC are breast, lung, colon, pancreatic, and brain cancers, as well as Merkel cell carcinoma (a type of skin cancer). Approximately 30% of the patients seen at the clinic have been in stage IV or the end stage of the disease where the cancer has spread. They are treated with nutritional therapies and Intravenous Vitamin C and other holistic intravenous therapies.

Leanna Standish, PhD, ND, Lac, from the School of Public Health at the University of Washington and BIORC has been the lead investigator in analyzing the data coming from the center. She's been comparing the data to The Seattle Cancer Care Alliance, a world renowned conventional cancer treatment center in the same area. While the research is ongoing, the data the clinic has gathered so far has been spectacular.\(^\text{14, 15}\)

For example:

- **Eight patients with stage IV colon cancer**—Three years after their care at the clinic began, 80% were still alive; only 15% of Seattle Cancer Care patients in a similar group were alive at three years.
- **Twelve consecutive patients with stage IV lung cancer**—After being treated at BIORC, 64% were still alive at three years. The Seattle Cancer Care reports a 15% survival rate at three years and SEER (National Statistics) show just a 3% survival rate.
- **Eleven consecutive stage III ovarian cancer patients**—At three years, 83% of them are still alive. The SEER national data reports a 49% survival rate at three years.
- **Forty six stage IV breast cancer patients**—The eighteen of the 46 that received IVC therapy had a 31.1% survival rate at five years compared to just 22.2% for those who had not received IV therapy.

IVC can also be used at lower doses to enhance the quality of life for people with cancer (and other diseases). Two published studies have demonstrated this benefit. One found that IV vitamin C significantly reduced side effects caused by the cancer, chemotherapy, or radiation including nausea, loss of appetite, fatigue, depression, sleep disorders, dizziness and bleeding. No side effects were documented.\(^\text{16}\)

Another very recent study involved a clinical trial of 25 women with ovarian cancer. Thirteen of the women received chemotherapy and vitamin C by IV. Researchers found that those volunteers who received IVC were less likely to report side effects from the chemotherapy than those who received chemotherapy alone. The same researchers also found that IVC promoted cell death in ovarian cells grown in culture.\(^\text{17}\) Another study found patients reported significantly less fatigue, nausea/vomiting, pain, and appetite loss after receiving IVC.\(^\text{18}\)

**Getting down to details on IVC therapy**

A dosage of IVC usually ranges between 25 to 75 grams. This is because the desired oxidative effect typically takes place at around 25 grams or higher. But, depending on the person, the optimal oxidative dosage may vary. A patient will normally be given a lower amount, such as 20 grams, to start and with subsequent IV’s the level is increased.

Because the vitamin C itself, IVC formulas normally only contains minerals to balance blood electrolytes such as magnesium, calcium and potassium. Sodium bicarbonate is also added to neutralize the acidity of the solution to prevent any possible vein irritation.

Research by Dr. Anderson has found that it takes a minimum of 12 to 15 treatments to assess whether or not the therapy will work for someone. Patients usually get one to three treatments per week, and each treatment takes about an hour and a half to two hours.
I've found that side effects are uncommon. However, it's important for the patient to eat a well-balanced meal before the treatment and to drink plenty water before, during, and after the treatment. IVC can lower blood sugar levels and be mildly dehydrating. There's the possibility that blood calcium and potassium levels can be lowered with the treatment. This is prevented by including them in the IVC solution. Vein irritation and pain can occasionally occur, but this is normally prevented or resolved by increasing the amount of sodium bicarbonate in the IVC solution and slowing the drip rate. If you have a port (a medical appliance that's surgically placed under the skin to give access to a vein) then vein irritation is rare.

Your doctor should analyze your lab work, including blood and urine testing, before starting IVC and should run tests again periodically during your treatments. If you have decreased kidney filtration or liver disease you will need to be monitored more closely, although problems from IVC for those with these conditions are still rare. You should also have a marker known as G6PD tested before starting high dose IVC. This is an inherited condition known as Glucose 6 Phosphate Dehydrogenase. If you have the marker your cells can't tolerate high dose vitamin C. It is more common in people of African, Asian, Middle Eastern, and Mediterranean descent.

If you know of someone who has cancer then be sure to let them know about the benefit of IVC. We administer a lot of high dose IVC at my clinic to people with a variety of cancers and have seen a lot of success.

Article Citations:

5. Ibid, www.riordanclinic.org/research/research-studies/vitaminC/tumor/
9. Hunninghake, Ron. Ibid.
11. Mahmoud FA, Rivera NI. The role of C-reactive protein as a prognostic indicator in advanced cancer. *Current Oncology Report* 2002;4:250–5
12. Riordan Clinic. Org website, ibid.
13. Hunninghake, Ron. Ibid.