

Vitamin C is unquestionably the single-most important nutrient in the improvement of an enormously wide range of health problems. *It is a miracle worker!*

Scientists have demonstrated that it is *bactericidal, virucidal, a detoxifying agent, activates the white blood cells, stabilizes allergic responses, calms inflammation, reverses glaucoma and cataracts, heals ulcers, helps prevent colds and flu, normalizes kidney and bladder function, improves diabetes and hypoglycemia, neutralizes poisons, heals wounds, prevents bone fractures, calms arthritis and rheumatism, eases pregnancy, helps the mentally ill, improves cancer recovery, lowers cholesterol, improves gall bladder, and extends life.* The brevity of this report makes it impossible to do justice in revealing the massive research demonstrating the wide-ranging effectiveness of Vitamin C.

Dr. Linus Pauling, famed scientist and two-time winner of the Nobel Prize, has said, *"It is, of course, astonishing that anyone would contend that a substance might be helpful to you no matter what disease you are suffering from. Nevertheless, the evidence is strong that vitamin C is such a substance. Vitamin C is not a wonder drug, a drug that cures a particular disease. It is instead a substance that participates in almost all of the chemical reactions that take place in your body, and is required for many of them."*¹

THE ORIGIN OF VITAMIN C

Humans are among a very small and unique group of animals (*the guinea, the fruit-eating bat, the chimpanzees, and the duck-billed platypus*) that cannot manufacture vitamin C in our liver, while all other animals can. On a pound for pound basis, how much vitamin C would we make each day if we could make the amount that a cow, dog, or pig makes? **According to Dr. Ir-**

win Stone, noted researcher on vitamin C, we would make 3,750 mg. per day, unless we were under stress, then we would make a lot more!²

How much do we actually get in our diet? According to a survey in 1971-72 by the Health Resource Administration of the U.S. Dept. of Health, Education, and Welfare, 83% of the U.S. population receives less than 150 mg. of vitamin C per day.³ We are obviously not getting anywhere near enough vitamin C. This is creating a lot of health problems.

WHAT IS VITAMIN C?

With so much talk about vitamin C being "natural" and "organic" versus "synthetic," there is a lot of confusion about what vitamin C really is. Scientists say that ascorbic acid is vitamin C. *But is it?* Many people feel that since the ascorbic acid that is found in plant foods is associated with things like Rutin, Hesperidin, and the bioflavonoids, that the combination of these factors is vitamin C.

Actually, this is what is known as the "Vitamin C Complex." Each member of this complex makes its own contribution to our good health. However, when we look at the vitamin C that is produced by the liver of various animals, we find that it is always ascorbic acid.

Their liver manufactures it from blood sugar (glucose). Then utilizing four different enzymes, it removes four hydrogen ions from the glucose and thus creates ascorbic acid. Humans lack the last enzyme (*L-gulonolactone oxidase*), and therefore cannot manufacture ascorbic acid. We must get it from our diet.⁴

The Ascorbic Acid used in supplements is made in the same way as the liver manufactures it—by enzymatic reduction of glucose to the ascorbic acid molecule.⁵

ASCORBATES (Vitamin C Plus Minerals)

The ability of ascorbic acid to be a wonder worker is often dependent upon it being used at levels of intake that are those of a food, rather than that of a vitamin. Many physicians, such as Dr. Fred



#3017, #3018 Ascorba Min
8 oz. & 16 oz
#3021, #3022 Ascorba Gram
90 & 180 capsules

Klenner, and Dr. Robert Cathcart are getting exceptional results by going to food level doses of 25, 50, and 100 grams per day.

At those levels the acid would become to intense to be compatible with our own body chemistry. This is because ascorbic acid has a pH of 2.5, which is quite acid. **However, when an acid, such as ascorbic acid, is placed with a metal, it gives up a hydrogen ion and binds with the metal, forming a "salt."** In the case of ascorbic acid, these salts are called ascorbates. They have a pH of 7.8, which is about as neutral as water.⁶ Ascorbates are just as active biochemically as ascorbic acid, less irritating to our tissues, more likely to be absorbed, and less likely to be wasted by the kidneys.

Since the body always has to convert ascorbic acid to an ascorbate before it can use it, taking the ascorbate form (ascorbic acid mixed with minerals) of vitamin C as a supplement saves our body a lot of work. Ascorbates also give us a good source of minerals delivered right to our cells. This is why the mineral ascorbate form is preferred by physicians who use large amounts of vitamin C.

NONTOXIC

Even in massive doses, vitamin C is described in medical literature as "virtually nontoxic."⁷ For example, Dr.

V. Demole fed guinea pigs massive doses of ascorbate, the equivalent of three quarters of a pound per day for humans, and was unable to demonstrate any symptoms of toxicity.⁸

According to Linus Pauling, there has never been a single case of death or serious illness reported due to excessive intake of vitamin C.⁷ Yet many false and misleading statements about vitamin C have appeared in the popular media, which has caused unnecessary concern about the use of large amounts of vitamin C. The chief concern has been that large amounts of vitamin C will cause kidney stones. This concern is totally unfounded. As Dr. Pauling has pointed out, there is not one single case of kidney stones in all of the medical literature as a result of vitamin C intake.

There are only two kinds of kidney stones, acid or alkaline, and oddly enough, vitamin C helps prevent and dissolve both kinds.

Alkaline kidney stones, such as calcium phosphate, magnesium ammonium phosphate, calcium carbonate, and their mixtures can be prevented and dissolved by taking high amounts of ascorbic acid.

The acid stones formed by calcium oxalate, uric acid, or cystine can be prevented and dissolved by taking large amounts of vitamin C in the form of mineral ascorbates.⁹ A technical error by Drs. Herbert and Jacobs in a 1974 research project led to the false conclusion that vitamin C might destroy vitamin B-12 in the stomach. This caused some needless worry until 1976 when Dr. Newmark and associates repeated the study with more reliable methods. They found that vitamin C does not in any way interfere with the availability of vitamin B-12 in the stomach.¹⁰ Thus vitamin C can be taken in large amounts without concern.

THE LAXATIVE EFFECT

In large doses, vitamin C has a laxative effect. This occurs when the dosage is greater than the body's ability to assimilate it from the intestinal tract. For many people, ascorbic acid has this effect with only 3 or 4 grams (3,000-4,000 mg.) taken in a single dose. However, when taken as a mineral ascorbate, **most**

people can take 3-4 grams many times a day without any noticeable effect on the bowel.

When there is stress or illness, the amount of ascorbate that can be tolerated without an effect on the bowel is often massive—frequently over 50 grams per day. This is because the body is absorbing and using most of it.

Physicians such as Dr. Robert Cathcart, a world-recognized authority on vitamin C, suggest taking a mineral ascorbate form on a daily basis just below the point that causes a loose stool.

He calls this "bowel tolerance." This effect is often used to good advantage by those with chronic constipation. It has a two-fold benefit. It speeds up the bowel transit time, thus reducing the cancer-causing toxins from being absorbed from the fecal matter into the blood stream. **Also, the high amount of vitamin C acts as a detoxifying agent to neutralize bacterial toxins and other poisons while in the large bowel, thus reducing the tendency toward bowel cancer.** For example, the nitrites used as preservatives in such food items as bacon and luncheon meats are carcinogenic in the intestines unless they are reduced by vitamin C to a harmless form.

Dr. F.L. Warren has demonstrated that many carcinogenic substances are quickly converted to a harmless oxidized form of that substance when sufficient vitamin C is present.¹²

CANCER

As we have just pointed out, one of the many benefits of vitamin C is its ability to neutralize cancer-causing substances. Since most cancer is caused by toxic substances which alter the cell chemistry, this benefit of vitamin C is not to be taken lightly.

Dr. E. Boyland and associates demonstrated that animals which have been exposed to carcinogens produce more vitamin C than normal and prevent the development of cancer.¹³ **Animals such as man, which are unable to produce vitamin C, simply exhaust their supply and become susceptible to cancer.**

Dr. E.L. Kennoway wrote in the British Journal of Cancer, "*carcinogens excite an increased demand for ascorbic acid, to which the animals capable of synthesizing it respond by over production, whereas in those lacking this power, the store is depleted.*"¹⁴

Drs. Got and Littman in 1948 discovered that cancers almost never grow in any tissue with ascorbic acid concentrations above 4.5 mg.¹⁵ In 1969, Dr. Dean Burke and associates at the National Cancer Institute demonstrated that ascorbate is highly toxic to cancer cells.

He wrote in the medical journal *Oncology*, "*The greatest advantage that ascorbates possess as potential anticancer agents is that they are, like penicillin, remarkably nontoxic to normal body tissues, and they may be administered to animals in extremely large doses (up to 5 or more grams per kilogram) without notable harmful pharmacological effects.*"¹⁶ (Note: This would be 350 grams in a 150-pound man).

TERMINAL CANCER

In 1971, Dr. Ewn Cameran at Vale of Leven Hospital in Scotland in conjunction with Dr. Linus Pauling began administering what, at the time, seemed like a large dose of 10 grams (10,000 mg.) of sodium ascorbate per day to terminally ill cancer patients for whom nothing more could be done. This was the only treatment given in their dying days. One hundred such patients were carefully matched to 1,000 others who did not receive the vitamin C.

Those without the vitamin C suffered terribly as most terminal cancer patients do, and all were dead within 400 days. However, **those who received the ascorbate improved, their pain disappeared, they got off morphine and heroin without any withdrawal symptoms, they lived an average of 10 months longer than those without the vitamin C, and a remarkable 5% totally recovered, while all 1,000 of those without the vitamin C died.**

Since that time, larger amounts of ascorbate are now being given, and at an earlier stage in the treatment program. The results have been even more impressive.¹⁷

HEPATITIS

In 1954 Drs. Baur and Staub treated viral hepatitis with 10 grams of ascorbic acid per day. They succeeded in reducing the length of illness and its symptoms.¹⁸ Dr. H. Kirchmair in 1957 treated 63 school children with hepatitis using 10 grams of ascorbic acid per day. The liver swelling was reduced in nine days instead of the usual 30, and there was a rapid removal of jaundice and return of appetite and weight gain.¹⁹

In 1958 Dr. D. Baetgen treated 245 children using 10 grams of ascorbic acid per day. Their epidemic hepatitis improved rapidly and repair of the liver tissue was excellent.²⁰ Dr. Fred Klenner of Reidsville has produced even better results by using larger doses.²¹

HERPES AND OTHER VIRUSES

The herpes family of viruses can cause extreme discomfort due to blister-like lesions on the mouth, lips, intestines, skin, and genitals. Unfortunately, almost everyone has these viruses lodged in their body.

Fortunately, vitamin C was shown by Dr. Holdon and Molloy to inactivate this virus.²² In 1943 Dr. I. Dainow reported excellent success in treating herpes zoster (shingles) with vitamin C, as did Klenner in 1949 and Mr. M. Zureick in 1954.²³

In 1951 Dr. Klenner reported his success with one case after another of poliomyelitis by using massive doses of vitamin C, ranging from 50 to 80 grams per day in two to four hour doses around the clock.²⁴ In 1955 Dr. E. Greer reported the same triumphant success over polio using Dr. Klenner's dosage.²⁵

Success has also been reported using vitamin C with viral pneumonia, measles, chicken pox, viral encephalitis, mumps, influenza, rabies, and smallpox.²⁶ Of great interest today would be the discovery by Dr. W.L. Dolton in 1962 that massive doses of vitamin C would conquer infectious mononucleosis in short order.²⁷ Especially since "mono" and its cousin Epstein Barr are on the rampage in the 80's with no effective medical treatment available.

HEART ATTACK AND STROKES

America's number 1 killer is heart attacks and strokes, accounting for nearly 1 million deaths per year, almost 3,000 per day.



One of the most important elements in a healthy vascular system is the collagen protein that provides the basic structure or framework for the arteries, veins, and the heart and its valves. Vitamin C is more critical to the formation of healthy collagen than any other substance. As far back as 1941, it was learned that 81% of all cardiac patients admitted to the Ottawa Civic Hospital were seriously deficient in blood levels of vitamin C.²⁸

From 1953 through 1955 Dr. G.C. Willis and associates closely examined the development of atherosclerotic plaque, and found that it occurred in man and other animals which could not produce ascorbic acid whenever their dietary intake of vitamin C became too low.²⁹

When autopsies of sudden death heart attack victims were performed in 1955, it was learned that atherosclerotic arterial tissues were extremely low in ascorbic acid.³⁰ Perhaps the most important finding of Dr. Willis was in 1957 **when he found that massive doses of ascorbate would reverse atherosclerotic plaques and cause them to be re-absorbed^d**

Cholesterol has been known to be part of the atherosclerotic plaque for over 100 years. However, it was not until **almost 1970 that it was found by three separate research groups that the cholesterol level goes up and down with the intake of vitamin C.**³² Dr. C.R. Spittle wrote, "*Atherosclerosis is a long-term deficiency of vitamin C which permits cholesterol levels to build up in the arterial system and results in changes to other fractions of fats.*"³³ These

changes in the other fractions of fats Dr. Spittle was talking about is the increase in the low density and a decrease in the high density lipoprotein which leads to heart attacks.

Dr. Pauling reports that vitamin C will reverse this situation, "*...a high level of vitamin C increases the amount of high density and decreases the amount of the low density lipoprotein cholesterol. Both of these changes help to protect against cardiovascular disease.*"³⁴

Several researchers have discovered that vitamin C is a natural diuretic which helps keep blood pressure normal.³⁵ Almost one-quarter of a million Americans die each year from strokes, and another three-quarters of a million become incapacitated by them. When autopsies were performed on those people who had died from strokes, it was discovered that their tissue ascorbic acid level was almost nonexistent.³⁶ Healthy collagen, the connective tissue that makes strong arteries and prevents strokes, cannot be made without high levels of vitamin C.

ARTHRITIS AND RHEUMATISM

Just as collagen protein is important for healthy arteries, so it is also important to the joints of the body which are primarily nothing but this form of tissue. Without adequate levels of vitamin C, collagen cannot be properly formed in the joints and rheumatoid arthritis may quickly result.

Healthy guinea pigs produce tissues with 14 to 16 percent collagen, but when deprived of vitamin C, they produce only 2 to 3 percent collagen.³⁷ Based upon this data Dr. B.F. Massel in 1950 administered 1 gram (1,000 mg.) of ascorbic acid four times per day to seven young (5-18 yrs. old) patients with rheumatic fever and obtained dramatic recovery in 8 to 26 days.³⁸ In 1952 Dr. Baufeld gave 6 grams of vitamin C per day and noticed "astonishing" improvements in both chronic and acute rheumatic conditions.³⁹

HAY FEVER AND ASTHMA

Those who are afflicted with hay fever have been given various amounts of vitamin C. Some results are obtained at 500 mg. per day. However, total relief

was not reported by Drs. Brown and Ruskin until the dosage reached 2,500 mg. per day. At that point 75 percent of those treated reported success.⁴⁰

Dr. W. Dawson and associates did considerable research (1965-67) on the relationship of vitamin C to asthma. They discovered that when large gram level doses were administered, the ascorbate had a calming effect on the spasms of the bronchial smooth muscles.⁴¹

GLAUCOMA AND CATARACTS

A great number of research papers have been published around the world showing the great benefit of vitamin C on glaucoma. In 1969 Dr. E. Linner demonstrated that 3 to 5 grams (3,000-5,000 mg.) of ascorbate daily will rapidly drop the interocular pressure of the eye, and thus bring total control of glaucoma and prevent blindness.⁴²

According to the U.S. Public Health Service, cataracts are the leading cause of blindness in the U.S. However, once again, several research papers such as those by Dr. V. Muhlmann and Dr. S.M. Burton in 1939 demonstrated that this condition is quickly brought under control with vitamin C at levels of 1 gram or more per day.⁴³

STOMACH ULCERS

Although we joke about ulcers, they aren't funny to the 4,000 people a day who develop one. As far back as 50 years ago, Drs. Smith and McConkey discovered that this condition is, oddly enough, due to a deficiency of ascorbic acid.⁴⁴ **Over 50 medical reports outlining the great benefit of large amounts of ascorbate in healing ulcers have been published.**

As strange as it may seem, in 1969 Dr. R.L. Russell found that those with bleeding ulcers have the lowest tissue levels of vitamin C and the greatest need for supplementation.⁴⁵ An effective dose appears to be 2 grams (2,000 mg.) of the ascorbate form (vitamin C mixed with minerals) in a liquid before meals and at bedtime. An additional 2 grams in liquid at anytime distress occurs.⁴⁶

CYSTITIS, KIDNEY, AND BLADDER

Reoccurring bladder and kidney infections is the leading cause of loss of work time among women. In 1969 it was shown at Tulane University by Dr. J.U. Schlegel that a daily intake of vitamin C sufficient to keep the ascorbic acid level of the urine routinely high, would not only prevent infection, but it would also prevent the formation of bladder and kidney tumors.⁴⁷

PREGNANCY

In a research paper published in 1957, Dr. M.P. Martin reported that when 2,000 women were examined, it was found that those with premature babies had the lowest level of vitamin C in their tissues.⁴⁸ Dr. Raiha reported on a study of 200,000 deliveries in Finland in which it was discovered that those with stillbirths had the lowest tissue levels of vitamin C.⁴⁹

DIABETES AND HYPOGLYCEMIA

Hypoglycemia results when there is not enough glucose in the blood. Dr. E. Wille demonstrated that **ascorbic acid deficiency led to low blood sugar and that supplements of vitamin C would correct and prevent the condition.**⁵⁰

It was noted by Drs. R. Pflieger and F. School in 1937 that ascorbate supplements would so **improve the effectiveness of insulin** that patients could drastically cut their insulin intake.⁵¹ This was verified by Dr. H. Bartelheimer in 1939 and Dr. J.M. Rogoff in 1944.⁵² This is a valuable discovery that should not be ignored.

WOUNDS, BACKS, AND GANGRENE

In 1947 Dr. J.A. Wolfer and associates demonstrated that all types of wounds heal twice as fast without infection and the healing tissue is four times stronger when vitamin C supplements are given.⁵⁵

In 1964 Dr. J. Greenwood, professor of neurosurgery at Baylor University School of Medicine stated that many back problems could be solved with vitamin C. **"It can be stated with reasonable assurance that a significant**

percentage of patients with early disc lesions were able to avoid surgery by the use of large doses of vitamin C."⁵⁶

Dr. Mavin Steinberg of the Jewish Memorial Hospital in New York has reported **successfully saving gangrene infected limbs** from amputation by administering large amounts of ascorbate daily to these patients.⁵⁷

AGING

Several studies have been done on a large number of people from age 1 to 83 concerning their tissue content of vitamin C. These studies have all revealed that as we age, the tissue content of ascorbic acid continuously drops. This is accompanied by a constant decline in the collagen protein that serves as the structural foundation for our bones, blood vessels, organs, joints, muscles, and skin.

As this collagen degenerates due to a decline in the body's content of vitamin C, we quite literally fall apart.⁵³ In 1948 Drs. Chope and Breslow interviewed 577 randomly selected people over the age of 55 in San Mateo County, California. They took a very careful survey of their dietary intake and calculated the nutrient content as well as other factors.

Seven years later they examined the records to determine who had died and compared their nutritional intake to those who had lived. They discovered that when all things were considered, **the daily vitamin C intake had more to do with their life expectancy than any other factor.**

Those with a low vitamin C intake had a chance of dying early by 2.5 times greater than those with high intakes of vitamin C. Even smokers with a two-times greater death rate had a better chance to live than those with a low vitamin C intake.⁵⁴ When all things are considered, it is obvious that good health and long life go hand in hand with a high intake of vitamin C.

BIOFLAVONOIDS

These substances, which are found in nature with vitamin C, are called "bio" because they are biologically active, and "flavonoids" because their structure plac-

es them in the flavone family of chemicals.

These were discovered by Dr. Szent-Gyorgyi, the discoverer of vitamin C. He originally called them vitamin P because they help control the permeability of the walls of the capillaries.

The capillaries are our smallest blood vessels, and it is through their walls that all nutrients must pass to reach the cells and tissues.

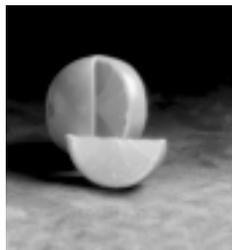
When they are not as strong as they should be, the walls become too permeable and valuable blood protein leaks into the tissues with other substances. When this happens, there is a drop in the osmotic pressure and fluids stagnate in the tissues.

Cells then become clogged with waste and debris, and essential nutrients are unable to enter. This sets the stage for cell starvation, tissue breakdown, and abnormal cell growth. Obviously, bioflavonoids are vitally important to our life and health.

Lemons have the highest quantity of bioflavonoids, and particularly the white of the rind and core. Hesperidin and rutin are the two most active of these bioflavonoids. They each consist of a water-soluble sugar and flavone portion.

The flavone portion is a powerful reducing agent, being able to “tie up” oxygen radicals and prevent them from causing damage to the body. Rutin is slightly more effective than hesperidin as an antioxidant.

These facts were demonstrated at Charles University by Dr. Z. Zolch in Czechoslovakia in 1969. His experiments demonstrated that when the **bioflavonoids were present, vitamin C was protected from destruction by oxygen. He also discovered that the uptake of vitamin C into the tissues, such as the adrenal glands, liver, and eyes, was twice as great with the presence of bioflavonoids.** He also found that they increased the ability of vitamin C to lower blood vessel levels of cholesterol.⁵⁸



Dr. G. Griffith and associates have found that rutin, along with other bioflavonoids, **reduces the incidence of hemorrhages of the retina of the eye, and strokes.**⁵⁹

Dr. A. Beardwood and associates also reported bioflavonoids offered **protection to the retina of the eye in diabetes**, as well as prevent bruising.⁶⁰

In 1978 Dr. T. Tengherdy reported that bioflavonoids and vitamin C gave **protection against the herpes virus** by stimulating greater collagen synthesis in the tissue structures which inhibited the virus.⁶¹

As we have seen previously, vitamin C is effective against ulcers. In 1958 Drs. Weiss and Weiss discovered that when bioflavonoids were given to a group of patients with bleeding duodenal ulcers, the **improvement was twice as fast and twice as effective on a long-term basis** as those in a control group with the same diet but no bioflavonoids.⁶²

Dr. Varma and associates have discovered that the bioflavonoids, as well as vitamin C, are **effective in blocking the action of aldose reductase, an enzyme that causes cataracts in diabetics.**⁶³

Of good news to women is the fact that gynecologist, Dr. A. Jacobs, found that bioflavonoids help prevent spontaneous abortions, and along with other nutrients **can alleviate the flushing, hot flashes, heart palpitations, and other unpleasant problems associated with menopause.**⁶⁴

Recent research, as reported by Dr. R.C. Robbins, has proven much of what has long been clinically known about the bioflavonoids is true. They do reduce capillary fragility and permeability, thus preserving vascular and cellular integrity. They do suppress the production of the inflammatory prostaglandin PGE₂, and thus calm irritations, and they do prevent the stickiness of blood platelets,

thus helping to prevent blood clots and atherosclerosis.⁶⁵

NEUTRALIZING TOXINS

The human body cannot survive when the blood and tissues are saturated with toxic substances. The liver has as its first responsibility the cleansing of the blood and the neutralization of toxins.

Unfortunately, toxins from a wide variety of sources such as viral or bacterial infections, alcohol or tobacco, insect or snake bites, cancer or hepatitis, and chemicals in our air, food, water, home or work place can so overwhelm the liver that it cannot neutralize them adequately. The liver and our entire body then become toxic. We then lose energy, become sick, and die.

Fortunately, there is a massive amount of research data which demonstrates that when vitamin C is given in large doses, it will completely neutralize these substances. This allows the liver to return to its important task of enzyme regulation and the creation of life and vitality within our body.

Mercuric poisoning as a result of tooth fillings is a major concern for some people. Yet, as far back as 1941 Dr. J.V. Mavin demonstrated that Vitamin C supplements **would totally neutralize the toxic effect of mercury.** This was further verified by the work of Dr. M. Vanthey in 1951 and Drs. Mokranjac and Petrovic in 1964.⁶⁶

Lead is another metallic poison that is of great concern to our health. It is often a hidden cause of multiple sclerosis. In 1939 Dr. Holmes discovered that **vitamin C would totally neutralize the toxic effect of lead.** This was later verified by Dr. Marchmont-Robinson in 1941 and Dr. H. Von-Wen in 1959.⁶⁷

The work of Dr. McChesney from 1942 through 1945, and that of Drs. Marco and Rigotti in 1962 clearly established that the harmful effects of **arsenic poisoning could be neutralized with vitamin C.**⁶⁸

Chromium is an essential element most of us don't get enough of. However, some industrial workers have received

toxic levels which Dr. Samitz in 1962 demonstrated could be neutralized with vitamin C.⁶⁹ Today many people have received injections of gold salts for arthritis. This is a toxic substance. Drs. Renzo and Peryassu have demonstrated that vitamin C can neutralize its toxic effect upon the liver.⁷⁰

Drugs are a frequent source of toxic conditions, both legal medicines as well as illegal drugs. A great deal of research has shown vitamin C to be extremely effective at neutralizing these toxic effects, while at the same time often enhancing the drug's beneficial effects. For example, in 1965 and 1967 Dr. P.K. Dey established that large doses of vitamin C would **render strychnine totally harmless.**⁷¹

Digitalis is a heart drug that can become poisonous, especially in the aged. Yet in 1959 Drs. Schulteirs and Torai demonstrated that vitamin C **would prevent digitalis poisoning.**⁷²

In 1968 Drs. Russell and Goldberg demonstrated that vitamin C would **offset the toxicity of excess aspirin** (the number one choice of suicides).⁷³ Drs. Vedder and Rosenberg had demonstrated in 1938 that vitamin C would **prevent toxicity from excessive vitamin A intake.**⁷⁴ Dr. I. Dainow established in 1941 that the **toxic effects of sulfa drugs could be prevented with vitamin C.**⁷⁵

Barbiturates are a cause of both serious addiction and damage to the nervous system, **both can be prevented** by the proper administration of vitamin C, established by Chinese researcher Dr. H. Hwi in 1965.⁷⁶

Morphine and heroin are both highly addictive and damaging. Yet research by R. Ghione in 1960 at the University of Rome revealed that **large doses of ascorbate would neutralize their addictive and harmful effects without withdrawal symptoms.**⁷⁷

This was further verified by the work of Drs. Cameron and Pauling with terminal cancer patients previously referred to in this report. With large amounts of vitamin C these patients were able to discontinue their morphine and heroin without withdrawal problems.⁷⁸

Drs. Libby and Stone, in a special project in 1977, also demonstrated that **large amounts of vitamin C would break narcotic addiction without painful withdrawal.**⁷⁹

In this report we have already examined the effectiveness of vitamin C in neutralizing the toxins produced by cancer, hepatitis, viruses, and gangrene.

Bacterial toxins, such as those from the Clostridium family which cause botulism (*food poisoning*) and tetanus (*lock jaw*) have also been shown by Drs. Buller-Souta and Lima and Drs. Dey and Klenner to be neutralized by vitamin C.⁸⁰

Poisonous snakebites ranging from the cobra to the water moccasin have been successfully neutralized by Drs. Nitzesco, Perdome and Klenner using large doses of vitamin C.⁸¹

Dr. Klenner also found large doses of vitamin C effective in the treatment of the **Black Widow spider bite** while Dr. W.J. McCormick found it equally effective in counteracting the poisonous **sting of the scorpion.**

In addition to all its anti-toxic abilities, vitamin C has also been shown to neutralize toxic chemicals.

Benzene is a hydro-carbon which has long been known to be very toxic and carcinogenic to humans. The benzene ring is a potentially toxic chemical structure **found in thousands of substances ranging from DDT to various plastics.** Much research from 1937 to work in 1965 by Dr. Lurie demonstrated that vitamin C will eliminate the toxicity of this substance which is prevalent in our modern environment.⁸³ As previously mentioned, Drs. Boyland and Kennoway have found that many carcinogenic substances are neutralized by vitamin C.¹³⁻¹⁴

One substance that should definitely be mentioned here is **carbon monoxide.** This gas is found in concentrations that often reach carcinogenic levels in the air of large cities, also where smoke hangs in the environment, around wood or coal-burning stoves, and in the lungs of cigarette smokers. Dr. Klenner has discovered the large doses of **vitamin C will offset the toxic and carcinogenic**

effect of this environmental toxin we all must increasingly deal with.⁸⁴

MICRO MINERAL ASCORBATES

There are two very important minerals which we need in smaller amounts and which are classified as *Micro Minerals.*

MANGANESE is one of these minerals and is used by all of the endocrine glands. The pituitary (the master endocrine gland) has a high demand for this mineral, as does the brain. *The production of insulin and regulation of blood sugar is dependent upon it. It is vital for strong pain-free tendons and ligaments, and is essential in activating the anti-aging enzyme—Super Oxide Dismutase.*⁸⁸

ZINC is the other micro mineral mentioned here. It is critical for normal pancreatic enzyme production, the **health of the skin and mucous membranes, and normal memory as we grow older.** It is vital to a strong immune system and essential to the male glandular system. The prostate gland in particular is dependent, being half zinc by dry weight. **Along with manganese and copper, it activates super oxide dismutase.**⁸⁹

TRACE MINERAL ASCORBATES

Some minerals are required only in trace amounts, yet even these tiny amounts can frequently be missing in our diets and your health suffers as a result of it.

COPPER is one of the most important of these. It is essential in working with vitamin C to **create strong collagen (connective tissue), and to activate the phagocytic (cell destroying) power of white blood cells to attack cancer cells, as well as bacteria and viruses.** It also joins with iron to produce oxygen-rich red blood cells, and without it we can become anemic.

MOLYBDENUM is a trace element we can scarcely pronounce, let alone get enough of in our diet. This is because it has been refined out of sugar cane and grains, where it is naturally found. It is absolutely essential to three human enzymes. It has been found to **help pre-**

vent dental and bone decay, stomach and esophageal cancer, and a deficiency may lead to impotence in older men.⁹¹

VANADIUM is essential in only very tiny amounts, and yet even this tiny amount is frequently missing as it is refined out of our natural foods. Recent studies have shown that this essentially nontoxic mineral is important in **helping to lower cholesterol, and that higher than normal amounts did aid the middle aged and older person in reducing their blood cholesterol levels.**⁹²

CHROMIUM is a mineral we generally think of in regard to gleaming car bumpers. However, in tiny amounts it is also **an essential component of a vital blood sugar-relating enzyme called Glucose Tolerance Factor (GTF).** Diabetic and atherosclerotic individuals are notoriously low in the chromium content of their tissues.⁹³

ACCESSORY FACTORS

Included in the **ASCORBA-MIN** formula is **niacinamide ascorbate**—which is vitamin B-3 and vitamin C. Niacin is a vitamin which is essential for the **integrity of the brain and nervous system.** Without it, a condition known as pellagra develops accompanied by several hallucinations. Niacin, when taken in conjunction with vitamin C helps **lower blood cholesterol.**

Researchers have found that niacinamide ascorbate binds to the same receptor sites in the brain as drug tranquilizers, thus providing an **all-natural tranquilizing effect.** It has also been shown to be beneficial in improving the health of arthritic joints.⁹⁴

The seed pod of the *Rosa rugosa* variety of the rose family is called a rose hip, and it is filled with natural vitamin C. The acerola shrub of South America produces a cherry-like fruit that is also filled with a natural vitamin C.

When the **rose hip and acerola cherry** are dried and powdered, they contain not only high amounts of vitamin C along with the bioflavonoids, but they also **contain**

many “X” factors which are part of the natural vitamin C complex.

Science has not yet discovered exactly what these “X” factors do. However, history has shown that when we do find out, we discover that God had a very good reason for putting them there. So just to be sure that no one misses out on the benefits of the “X” factor in the C complex, they too have been included in the Ascorba-Min formula.

CHOOSING THE RIGHT DOSAGE

The **ASCORBA-MIN** formula comes as a powder. A slightly rounded teaspoonful provides approximately 3,000 mg. of vitamin C, along with a full complement of the minerals and bioflavonoids reviewed herein.

The taste is essentially neutral, and the powder may be mixed with a juice or beverage without compromising its flavor. This allows it to be easily given to fussy children or elderly people, as well as healthy or sick people of all ages. The question of how much vitamin C to take per day is so widely and hotly debated that it is impossible to approach the question without upsetting someone.

To begin with, the Minimum Daily Recommended amount for vitamin C by the National Research Council is 45 mg. per day for a 150-pound man. However, on a pound for pound basis, Dr. Irwin Stone found that if a 150 pound man made as much vitamin C in his liver as a rat, dog, goat, or horse, he would make 3,750 mg. per day.²

Dr. Linus Pauling suggests that this amount would be a base minimum for a daily dose. Dr. Fred Klenner, who has been using vitamin C almost exclusively in his medical practice since 1940, says the dose should be 1 gram per year of life for 1-10 years. After 10 years of age, it should be ten grams (10,000 mg.) as a daily maintenance for stress or illness.⁹⁵

Dr. Robert Cathcart, who is also a medical doctor treating almost exclusively with vitamin C, published in 1981 these dosages as those he uses for various health problems.⁹⁶

THE REBOUND EFFECT

When large amounts of vitamin C are taken each day (5 or more grams), the body begins to accomplish certain biochemical functions. This is especially true with regards to the immune system. If this large intake is suddenly stopped, it can leave the body temporarily vulnerable until the body has a chance to adjust to the lower intake of vitamin C. This is known as the **rebound effect.** Thus, those **individuals who chose to have a high daily intake of vitamin C should taper off gradually should they desire to quit taking high amounts,** so the body can adjust to the lower dose without creating the temporary vulnerability of the rebound effect.

References are available for \$1.00 and a self-addressed stamped envelope. Please specify the title in your request. (See page 8 for more information)

Condition	No. of Doses	Grams n 24 hrs.
Healthy	4	1-4
Hay Fever, Asthma & Stress	4-8	15-25
Cold	6-10	30-60
Flu	8-15	60-100
Rheumatoid Arthritis ..	4-15	15-100
Injury, Burns & Surgery ...	6-15	25-150
“Mono” & viruses	12-18	150-200
Bacterial infections	10-18	200-300

INGREDIENTS

Ascorba Min Powder

One well-rounded teaspoon of Ascorba-Min contains the following nutrient values:

Vitamin C	3,100 mg.	Potassium	265 mg.
Lemon Bioflavonoids	250 mg.	Magnesium	80 mg.
Rose Hips	169 mg.	Zinc	5 mg.
Acerola Cherry	94 mg.	Manganese	2.5 mg.
Rutin	50 mg.	Copper	100 mcg.
Hesperidin	25 mg.	Molybdenum	50 mcg.
Niacinamide	53 mg.	Vanadium	10 mcg.
Calcium	151 mg.	Chromium	5 mcg.

SUGGESTED USE

The Institute offers the following suggestion for using this product. Stir one-half to one teaspoon of Ascorba-Min in 6 ounces of juice or beverage, let sit for 3 minutes, stir and drink. Repeat one or more times per day as needed. When dealing with major health problems, most authorities on vitamin C recommend taking as many doses per day as possible just short of developing diarrhea. This product is especially suited to those whose assimilation is poor, or those who need to take very large amounts of vitamin C, or who need it to reach the blood stream and tissues very quickly, or take as directed by your physician.

Vitality Prod. Code 3017 (8 oz.) Vitality Prod. Code 3018 (16 oz.)

Ascorba Gram Capsules

This is essentially the same formula as the preceding product except that it has been made into capsules providing approximately one gram of vitamin C per 2 capsules. This provides a convenient means of taking the required amount of vitamin C per day. The Institute suggests this product for those who have good assimilation, or those who need moderate amounts of vitamin C per day, or those who do not have emergency needs for vitamin C into the blood stream and tissues rapidly.

Vitality Prod. Code 3021 (90 caps) Vitality Prod. Code 3022 (180 caps)

Dr. Robert Preston...



A NATUROPATHIC PHYSICIAN

The modern doctor of Naturopathic medicine is trained in the same basic sciences of medicine as any other medical doctor.

They study from the same text books, the same courses, the same number of hours and must pass the same basic examinations. However where the ordinary medical doctor studies drugs to treat disease, the naturopathic doctor studies natural methods to overcome health problems by building good health.

The naturopath specializes in using botanical and homeopathic remedies, as well as diet, vitamins, minerals, amino acids, enzymes and manipulation as means of normalizing body chemistry.

Dr. Robert Preston attended Arizona State University at Tempe, Los Angeles College of Chiropractic, American College of Natural Healing Sciences, and the Arizona College of Naturopathic Medicine. He is a diplomat of the National Board of Naturopathic Examiners and certified by the Idaho State Board of Naturopathic Examiners.

President and Founder of the International Institute of Nutritional Research in 1985, Dr. Preston has dedicated his entire life to the research and scientific study of the ever changing role that nutrition plays in achieving optimum health. Publishing his research, he has helped literally thousands of people all around the world to improve the quality and health of their life!

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