



## MULTI-VITAMINS AND MINERALS WE MUST TAKE NUTRITIONAL SUPPLEMENTS IF WE WANT OPTIMAL HEALTH

Nutritional supplements are not an option; they are a necessity for people who are concerned about living a healthy life. This issue of *The Herbal Pharm* will discuss diet and nutrition at a level that teaches people how to enhance their own immune systems and control their own aging processes. It will discuss the shortcomings of the standard American diet, outline the fundamentals of healthy eating and explain how to integrate the intelligent use of nutritional supplements with a healthy diet for optimal health and wellness.

Over a period of hundreds of thousands of years of evolutionary history, mankind has evolved while eating a primarily plant-based diet. Some meat was also eaten, but it was lean meat from animals that grew naturally in the wild. Throughout approximately 99% of mankind's existence, **100% of the calories in our diets came from the nutrient-rich tissues of plants and animals that had grown in nature -- without the addition of antibiotics, growth hormones, pesticides, insecticides or herbicides.** These days, approximately two-thirds of the calories in the diets of most Americans come from the following four food groups that are basically devoid of nutrition: processed sugar, fats and oils, processed grains and alcohol.

In 400 BC, Hippocrates was credited with saying, "Let your food be your medicine, and your medicine be your food." Unfortunately, in the late 20<sup>th</sup> century our lifestyles and values have changed so that the current slogan is, "Let your food be refined, and let your medicine be manufactured drugs."

Numerous problems associated with our food supply and the foods that people choose are contributing to the ill health of Americans. Most people are not aware of the fact that over the past fifty years, there has been a substantial decline in the nutritional content of the commercially available food supply. As a result, many Americans suffer from a condition referred to as over-consumption/under-nutrition.

Numerous studies have documented how food processing robs foods of tremendous quantities of nutrients. Although the phrase "Garbage In-Garbage Out" (GIGO) originated in the computer industry, it also applies to health and the foods that people choose to eat. The **nutrients most often lost or destroyed during food processing include all of the B-vitamins, vitamins A, C, D, E and many minerals.** For example, the milling of whole grain to make white flour removes approximately **86% of the manganese, 89% of the cobalt, 68% of the copper, 78% of the zinc, 48% of the**

**molybdenum and 40% of the chromium. The refining of flour also removes much of the phosphorus, iron, thiamin, niacin and riboflavin.**<sup>1</sup>

**Factory Farming:** Beyond poor food choices, there are some very serious problems with the American food supply. Since the 1940s, the agricultural food supply in the United States has been moving away from traditional farming techniques. These days, agriculture is run by large business conglomerates, and the terms “factory farming” and “industrialized food supply” describe today’s agriculture. Modern industrial farming practices are contributing to a decline in the nutritional content of our commercially available food supply. Significant problems include: a) **accelerated loss of topsoil, b) extensive use of pesticides, insecticides and herbicides that kill soil bacteria and decrease nutrient absorption, c) poor fertilization practices which primarily rely on nitrogen, phosphorus and potassium salts (ignoring important trace minerals) and d) increasing dependence on hybridized seeds.**

Some health professionals claim that today’s industrialized farming practices are creating an epidemic of trace mineral deficiencies. Most farmers do not replace lost compost or organic manure back onto their fields. In an attempt to document the declining nutritional content of the commercially available food supply, one investigator analyzed the nutritional content of organically grown foods compared to the same type of food grown commercially. In this study, the **nutritional content of organically grown foods was found to be about twice that of commercial foods.**<sup>2</sup>

Although critical nutritional deficiency diseases such as scurvy and beriberi are relatively rare in the United States, evidence from studies suggests that marginal nutritional deficiencies are quite common. Several studies will be presented to support this contention. It is important for health care providers to realize that most Americans suffer from a deficiency of one or more essential nutrients.

Numerous nutritional surveys have shown that the standard American diet does not meet the nutritional needs of most Americans. The following study, which was funded by the United States Department of Agriculture, revealed that the diet of many Americans is not providing the Recommended Daily Allowance (RDA) of the following nutrients.<sup>3</sup>

**U.S. Department of Agriculture Nutritional Survey**

<b><u>Nutrient</u></b>	<b><u>% Americans Below the RDA</u></b>
Vitamin B6	80%
Magnesium	75%
Calcium	68%
Vitamin A	50%
Vitamin B-1	45%

<sup>1</sup> Sitt, PA. Fighting the Food Giants. Natural Press, Manitowoc, WE, 1980, p. 144.

<sup>2</sup> Smith, Bob. Organic foods vs. supermarket foods: elemental levels. J App Nutr 1993;45(1):35-39.

<sup>3</sup> Pao EM, Mickle SJ. Problem nutrients in the United States. Food Technology 1981; 35:58-62.

Vitamin C	41%
Vitamin B-2	34%
Vitamin B-12	34%
Vitamin B-3	34%

Results from the second National Health and Nutrition Examination Survey (NHANES-II) revealed that **91% of Americans do not** eat the suggested two servings of fruits and three servings of vegetables daily. It also showed that the diets of **nearly 50% of Americans supply less than the RDA for vitamin A, vitamin C, calcium and iron.**<sup>4</sup>

A classic nutritional study done by Dr. Firman Bear at Rutgers University a number of years ago measured the variations in mineral content in vegetables (snap beans, cabbage, lettuce, tomatoes and spinach) collected from ten different states within the United States. When the same foods, grown in different locations, were analyzed, they were found to have wildly varying nutritional content, sometimes differing by a factor of 100 or 1000 to 1. For example, the best lettuce **had 169 ppm of manganese while the worst lettuce had only 1-ppm manganese; the best tomatoes had 1938 ppm of iron, while the worst contained only 1 ppm.**

In 1988, poor nutrition had become such a serious national health problem that the Surgeon General of the United States made the following statement, **“Approximately two-thirds of all deaths are associated with imbalances in diet and nutrition.”**<sup>5</sup>

Modern agriculture’s increasing reliance on hybridized seeds has increased crop yields, but it has also created some problems. In their soon-to-be released book, Russell Jaffee, M.D. and Patrick Donovan, N.D., report that the protein content of today’s restructured, hybridized corn is about **50% less than the protein content of corn in the early 1900s.**<sup>6</sup> These authors state that, “Hybrid grains, cereals, fruits and vegetables are bred for certain qualities, such as sweetness, being seedless, or pest-resistance. Commercial sweet corn in 1911 contained 10.3% crude total protein, whereas hybrid commercial sweet corn in 1956 contained 5.2% comparable protein. Recent data show comparable or lower protein content. In contrast, hybrid organically grown sweet corn in 1978 contained 10.8% comparable protein.” These authors also wonder if the nutrient depletions in our agriculturally grown foods over decades might explain the nutrient deficits that contribute to the high incidence of chronic degenerative diseases in this country.

The previous discussion is meant to provide health care providers with evidence to support the following two suppositions. The first point is that modern agriculture’s factory-farming growing techniques have contributed to a decrease in the nutritional content of the commercially available food supply. The second point is that numerous studies show that most Americans have one or more nutritional deficiencies. Health care providers can utilize this information to help educate people in their communities

<sup>4</sup> Patterson BH, et al. Fruit and vegetables in the American diet: Data from the NHANES-II survey. Am J Public Health 1990; 80(2): 1443-1449.

<sup>5</sup> Public Health Service, DHHS. Surgeon General’s Report on Nutrition and Health. Publ. No. 88-50211, 1988.

<sup>6</sup> Jaffee, R, Donovan, P. Health Assurance: Your Livable Health Plan.

about the importance of taking nutritional supplements to support their diets and their health.

**45 Essential Nutrients:** In the fields of diet and nutrition, when we talk about essential nutrients, the word “essential” has two meanings, both of which are important. First, essential nutrients are nutrients that the body must receive virtually every day. Second, essential nutrients are nutrients that the body cannot make on its own. Thus, the only way we can get essential nutrients is from outside sources, either in the food we eat, or as nutritional supplements. There are 45 essential nutrients for humans, 20 minerals, 15 vitamins, 8 essential amino acids and 2 essential fatty acids.

I regularly ask customers what nutritional supplements they take. Often people respond by telling me they take several nutrients such as vitamin C, vitamin E, calcium and iron. I use this type of response as an opportunity to tell people that we have 45 essential nutrients and I recommend that they begin taking a multi-vitamin/mineral product that contains a wider range of the essential nutrients their bodies need.

The **Recommended Dietary Allowances**, or **RDAs**, are values that have been set by the Food and Nutrition Board of the National Research Council, which is part of the National Academy of Sciences. These values were first published in the early 1940s and they are reevaluated and updated approximately every five years. The original intent of these values was to decrease the incidence of severe nutritional deficiency diseases such as scurvy (vitamin C deficiency), beriberi (vitamin B-1 deficiency) and pellagra (niacin deficiency). While the RDAs are adequate to prevent these serious nutritional deficiency diseases, they seem to be quite inadequate to prevent the development of the many chronic degenerative diseases that plague our culture. In fact, we have the highest incidence of chronic degenerative diseases and the largest health care budget in the entire world.

I like to refer to the RDAs as the “minimum wage of nutrition,” and I suggest that RDA should stand for **R**eally **D**umb **A**llowance. It is important to realize that the RDAs have nothing to do with optimal health and wellness. The actual definition of the RDAs is that they are “levels of intake of essential nutrients considered to be adequate to meet the known nutritional needs of practically all healthy persons.”

Unfortunately, most Americans do not fit this “healthy persons” category. Groups of people who have greater nutritional needs include the millions with diagnosed illnesses, people taking prescription drugs, hospital patients, dieters, smokers, alcoholics, the elderly, heavy exercisers and individuals under high levels of stress. If it occurred to you that most Americans fall into one or more of those categories, you are right. **RDAs do not apply to most individuals.**

**Stress:** It is important for health care providers to have a clear understanding of the following two categories of “nutritionally challenged” individuals. The first area I want to emphasize is stress. Stress depletes nutrients in the body and also hinders digestion and absorption. Physical stress and emotional or psychological stress challenge the

body in similar ways. Thus, conditions such as depression, surgery, accidents, as well as the stress of poor diets, smoking and alcoholism are all situations where nutritional counseling is necessary.

**Drug-Induced Nutritional Depletions:** Many people who regularly take prescription drugs are also “nutritionally challenged.” Numerous categories of drugs deplete nutrients, including **estrogen-containing medications, diuretics, cholesterol-lowering drugs, NSAIDs, anti-convulsants, antibiotics, ulcer medications, antidepressants, tranquilizers,** etc. Long-term use of these types of medications will require a pharmacist’s counseling about drug-induced nutritional depletions.

Another point that will help explain why the RDAs are inappropriate nutritional guidelines for most people comes from the pioneering work of Dr. Roger Williams. In 1966 Dr. Williams’ book titled **Biochemical Individuality** was published. In this book, Dr. Williams stated that an individual’s unique need for any nutrient could vary by a factor of 100 or even 1000 times greater than what is generally accepted to be normal.<sup>7</sup>

**Paradigm Shift...Beyond the RDA:** We need to make a paradigm shift in our thinking, moving away from RDAs and moving in the direction of what is necessary for optimal health and wellness. Scientific research, which has been moving at an incredible rate of speed, is increasing our understanding of the immune system and the aging process. Science has shown us that the RDAs are not appropriate standards for a healthy lifestyle. Even if I could be assured that my **diet supplied me with 100% of the RDA for all of the essential nutrients, I would not be satisfied.** In the last ten years, literally thousands of studies have been published, showing that levels of nutrient intake substantially higher than the RDA values provide increased health benefits. Several studies will be reviewed here as examples of research that goes beyond the RDA paradigm.

**Vitamin C:** Dr. Linus Pauling conducted a meta-analysis of vitamin C’s effect on the common cold. In five studies where participants utilized relatively low doses of vitamin C (70 mg to 200 mg/day), there was a **31% decrease in the symptoms and severity of colds.** In eleven studies where participants utilized 1,000 mg/day or more of vitamin C, there was a 40% decrease in the symptoms and severity of colds.<sup>8</sup> The RDA for vitamin C is 65 mg/day.

**Vitamin E:** Participants in the Cambridge Heart and Antioxidant Study (CHAOS) who took 400 IU or 800 IU of **vitamin E had a 47% reduction in heart attacks** compared to individuals taking a placebo.<sup>9</sup> The RDA for vitamin E is 30 IU/day.

**Selenium:** Volunteers were given 200 mcg/day of selenium in a four-year, double-blind, placebo-controlled study. Results showed that selenium produced an overall **50% decrease in the incidence of cancer, with a 45% reduction in lung cancer, 58%**

<sup>7</sup> Williams RJ. *Biochemical Individuality*. New York, John Wiley & Sons, 1963.

<sup>8</sup> Pauling L. *How to Live Longer and Feel Better*. New York, NY: Freeman and Company, p. 120.

<sup>9</sup> Stephens NG, et al. Randomized controlled trial of vitamin E in patients with coronary disease: Cambridge Heart Antioxidant Study (CHAOS). *Lancet* 1996; 347:781-786.

**reduction in colorectal cancer, and a 63% reduction in prostate cancer.**<sup>10</sup> The RDA for selenium is 55 mcg/day for women and 70 mcg/day for men.

**Immunity:** Dr. S.N. Meydani is a highly respected scientist at the USDA’s Human Nutrition Research Center on Aging at Tufts University. Dr. Meydani states that “supplementing the elderly with single nutrients or mixtures of vitamins and minerals at **levels that exceed the Recommended Dietary Allowances (RDAs) significantly improves certain indices of the immune response.**” In one of his studies, he reported the following: “Improved immune response was associated with decreased frequency of infectious diseases, indicating that nutrient-induced immunological improvement clinically enhances the health of the elderly.”<sup>11</sup>

**Nutritional Supplements:** Let us examine and compare two different types of nutritional supplements: those formulated according to RDA-type dosages vs products with ingredients that go beyond the RDAs, which are sometimes referred to as high-potency multi-vitamin/mineral supplements.

Currently, two of the top-selling nutritional supplements are Lederle’s Centrum Silver and Nature Made’s Essential Balance brand. These are both one-tablet per day nutritional supplements. Let us take some time to compare these two popular products with Professional Series’ Ultra Preventive III formulation, which we will use as an example of a product that goes beyond the RDAs.

<b><u>Nutrient</u></b>	<b><u>Lederle’s Centrum</u></b>	<b><u>Nature Made’s Essential Balance</u></b>	<b><u>Professional Series’ Ultra Preventive III</u></b>	<b><u>RDA</u></b>
Vitamin A	5,000 IU	7,500 IU	10,000 IU	5,000 IU
Beta-carotene	5,000 IU	2,500 IU	15,000 IU	none
Vitamin C	60 mg	120 mg	1,200 mg	60 mg
Vitamin D	400 IU	400 IU	100 IU	400 IU
Vitamin E	45 IU (syn)	40 IU (syn)	400 IU (natural)	30 IU
Vitamin B1	1.5 mg	1.5 mg	100 mg	1.5 mg
Vitamin B2	1.7 mg	1.7 mg	50 mg	1.7 mg
Vitamin B3 (niacin)	none	20 mg	40 mg	20 mg
Niacinamide	20 mg	none	150 mg	none
Vitamin B6	3 mg	2 mg	100 mg	2 mg
Folic Acid	400 mcg	400 mcg	800 mcg	400 mcg
Vitamin B12	25 mcg	6 mcg	100 mcg	6 mcg
Biotin	30 mcg	30 mcg	300 mcg	300 mcg
Pantothenic Acid	10 mg	10 mg	500 mg	10 mg
Calcium	200 mg	100 mg	500 mg	1,000 mg

<sup>10</sup> Clark LC, et al. Effects of selenium supplementation for cancer prevention in patients with carcinoma of the skin. A randomized controlled trial. JAMA 1997 May 21; 277(19): 1520.

<sup>11</sup> Meydani SN. Vitamin/mineral supplementation, the aging immune response, and risk of infection. Nutr Rev 1993 Apr; 51(4): 106-109.

Iron	4 mg	18 mg	none	18 mg
Phosphorus	48 mg	77 mg	none	1,000 mg
Iodine	150 mcg	150 mcg	200 mcg	150 mcg
Magnesium	100 mg	100 mg	500 mg	400 mg
Zinc	15 mg	15 mg	25 mg	15 mg
Copper	2 mg	2 mg	none	2 mg
Potassium	80 mg	40 mg	99 mg	4,000 mg
Chromium	130 mcg	25 mcg	200 mcg	none
Molybdenum	160 mcg	25 mcg	100 mcg	none
Chloride	72 mg	36 mg	none	none
Vitamin K	10 mcg	none	none	none
Selenium	20 mcg	25 mcg	200 mcg	70 mcg
Manganese	3.5 mg	2.5 mg	20 mg	2 mg
Nickel	5 mcg	none	none	none
Silicon	2 mg	none	none	none
Vanadium	10 mcg	none	50 mcg	none
Boron	150 mcg	none	1,500 mcg	none
Choline	none	none	150 mg	none
Inositol	none	none	100 mg	none
Citrus Bioflavonoids	none	none	100 mg	none
PABA	none	none	50 mg	none
L-Cysteine/NAC	none	none	200 mg	none
L-Methionine	none	none	12.5 mg	none
Glutamic Acid	none	none	25 mg	none
Betaine HCL	none	none	150 mg	none

**Price:** Of course, one of the biggest differences is price. Nature Made’s Essential Balance costs \$10.29 for 100 tablets; Centrum Silver costs \$8.19 for 60 tablets; Ultra Preventive III costs \$26.50 for 180 tablets. The daily dosage for Centrum and Essential Balance is one tablet daily, whereas the daily dosage for Ultra Preventive III is six tablets daily. In order to arrive at an accurate comparison, let us convert each product to its actual cost per day: **Essential Balance costs 10.3 cents per day; Centrum Silver costs 13.6 cents per day and Ultra Preventive III costs 88.3 cents per day.** Thus, Ultra Preventive III is about 6.5 times more expensive than Centrum Silver and about 8.5 times more expensive than Nature Made’s Essential. In a moment we will evaluate how much “bang for the buck” each product delivers.

**Daily Dosage:** It is important to consider the difference between taking one tablet daily with Centrum or Essential Balance vs. taking six tablets of Ultra Preventive III (two tablets three times daily). Remember that the **water-soluble vitamins (vitamin C and all of the B vitamins) only remain in our bodies about four to six hours.** Therefore, when you take a one-a-day vitamin at breakfast, any excess will be excreted by noon or early afternoon. This means you may be depleted of the water-soluble nutrients throughout the rest of the day. Hence, one of the benefits of higher potency

formulations is the divided dosing, two or three times daily. This gives a much **more constant blood level of nutrients throughout the day.**

**Quantity of Ingredients:** Although the high-potency supplement is approximately six to eight times more expensive to take on a daily basis, let us evaluate what an individual gets for the money. Ultra Preventive III has 10 to 20 times more vitamin C than the lower potency products; 10 times more vitamin E; 67 times more vitamin B1; 30 times more vitamin B2; 33 to 50 times more vitamin B6; 4 to 16 times more vitamin B12; 10 times more biotin; 50 times more pantothenic acid; 2 ½ to 5 times more calcium; 5 times more magnesium; 8 to 10 times more selenium, etc.

**Quality of Ingredients:** It is also important to note the differences in the quality of ingredients among the different products. In almost every case, the cheaper products use the cheapest ingredients possible. On the other hand, Ultra Preventive III utilizes the following superior ingredients: **natural vitamin E (33% more bioavailable than synthetic vitamin E), vitamin C (corn free=non-allergenic).** Some of the minerals used are highly absorbable aspartate or ascorbate salts, some are amino acid chelates (better absorption), while others utilize Krebs cycle salts; GTF chromium is used rather than chromium chloride; organically bound selenium is used rather than the less-desirable sodium selenite salt.

**Accessory nutrients:** Ultra Preventive III contains some important accessory nutrients including citrus bioflavonoids that strengthen capillaries and provide antioxidant activity, choline which is a precursor to acetylcholine in memory processes and several important amino acids.

**Overall Analysis & Benefits:** This analysis shows that a well-formulated high-potency nutritional supplement provides the following benefits: better quality ingredients, enhanced absorption, larger amount or quantity of nutrients, divided dosing and sustained blood levels, plus providing some important extra accessory nutrients.

**Cutting corners on your nutritional supplementation means cutting corners on your health and your life.** We could compare our bodies to a fine automobile. If you purchased a new Cadillac, but decided to buy cheap gasoline and only use one-half the required amount of oil, before too long the car would begin to run poorly. The human body/mind is the most phenomenal “machine” that has ever been created. It should receive exquisite, high-tech maintenance and repair, rather than neglect and abuse.

Unfortunately, it often takes about a quarter of a century for scientific research to become mainstream. For example, Denham Harmon, M.D. first told us about free radicals and proposed the importance of antioxidant nutrients in 1956. It took a couple of decades before his ideas became accepted by mainstream medicine. Doctor Linus Pauling endured decades of ridicule for advocating high doses of vitamin C. In 1969, Kilmer McCully, M.D., told the world that homocysteine was causing heart attacks. At the time a great deal of money and many scientific reputations had placed their bets on cholesterol. Now doctor McCully is being honored for his work and elevated

homocysteine is being recognized as a critical risk factor for cardiovascular disease. Many researchers are now suggesting that cardiovascular protection requires levels of folic acid, vitamin B-6 and vitamin B-12 at higher than RDA levels to metabolize and detoxify homocysteine.

I have used the theories of Drs. Harmon, Pauling and McCully to reemphasize the following point: An ever-increasing volume of scientific research is showing us that intelligent use of nutritional supplements at substantially higher levels than those advocated by RDA can **enhance our immune systems and slow down our aging process.**

**Who should take nutritional supplements?** Everyone who is interested in optimal health and the prevention of disease should be on a regular daily nutritional supplement program. This includes **children and infants, although their dosages need to be adjusted for their age and weight.**

Different people will have different levels of interest in health and nutrition. Some individuals with limited financial resources may only be able to afford a one-a-day type of nutritional supplement. This is certainly better than no supplement at all. However, people who are more concerned about their health truly have the opportunity to join what is being called the life extension movement. A healthy lifestyle requires regular exercise, a healthy diet and a good program of nutritional supplementation. The list below is offered as a guideline for a daily high-potency vitamin/mineral supplementation.

Vitamin A	5,000 to 10,000 IU	Vitamin D	200 to 400 IU
Beta-carotene	10,000 to 25,000 IU	Vitamin B-1	15 to 50 mg
Vitamin C	250 to 1,000 mg	Vitamin B-2	15 to 50 mg
Vitamin B-3	30 to 60 mg	Vitamin B-12	100 to 500 mcg
Pantothenic Acid	100 to 500 mg	Folic Acid	400 to 800 mcg
Vitamin E (Natural)	100 to 400 IU	Biotin	200 to 400 mcg
Calcium	800 to 1,200 mg	Magnesium	800 to 1,200 mg
Potassium	50 to 99 mg	Iron	0 to 15 mg
Zinc	5 to 30 mg	Manganese	3 to 6 mg
Choline	50 to 500 mg	Iodine	50 to 150 mg
Chromium	100 to 200 mcg	Selenium	100 to 200 mcg

\*\* Note: These only represent suggested dosage ranges. The main purpose of this list is to provide dosages that serve as a guideline for high potency nutritional supplements.

**Categories of Nutritional Supplements:** There are three main categories of nutritional supplements to consider. The first and most important category is a good quality, high-potency multi-vitamin/mineral supplement. This should be the foundation of everyone's nutritional supplement program. The other two categories are a) extra antioxidants and b) essential fatty acid supplementation.

**Antioxidant supplements:** Antioxidants can be approached in two ways. One approach is to purchase a product that contains the major antioxidants all in one tablet or capsule. On the other hand, many people who take higher amounts of antioxidants prefer to buy them separately. This enables you to individually adjust your intake of each antioxidant nutrient. Combination antioxidant products usually contain at least vitamin C, vitamin E and selenium. Other important antioxidants to consider include vitamin A, beta-carotene, coenzyme Q10, proanthocyanidins and various bioflavonoids.

**Essential fatty acid supplementation:** Essential fatty acids are a very important part of a nutritional program. Most people in our culture are deficient in omega-3 and consume far too much omega-6. Flaxseed oil is the best way to supplement with omega-3. One tablespoonful daily is appropriate for most adults. Flaxseed oil needs to be refrigerated at all times. Some people dislike taking this oily product by mouth. These people can take either flaxseed oil capsules or fish oil (marine lipids) capsules.

**Safety:** Taking nutritional supplements at levels above the Recommended Dietary Allowance is extremely safe. Side effects and toxicities can only develop if a person takes doses that go way beyond the guidelines that have been presented here. In such a case, the problem would be the result of gross negligence on the part of the individual.

The following data from the American Association of Poison Control Centers affirms the safety of nutritional supplements. **Over an eight-year period, from 1983 through 1990, there were a total of 2,506 deaths from prescription and non-prescription drugs. During the same eight-year period there was only one reported death from nutritional supplements.**

**Summary:** It is time to think in terms of super nutrition. There are tremendous problems associated with the standard American diet and, as a result, many Americans have nutritional deficiencies. Adhering to the RDA guidelines actually increases the likelihood that a person will not live a long, healthy life. There is now substantial evidence showing that nutritional supplements above RDA levels can enhance immunity, improve general health and well-being and slow down the aging process. Health care providers can play an important role in educating Americans about the benefits of nutritional supplements and a healthy lifestyle.

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