Whole Food Vitamins:
Ascorbic Acid Is Not Vitamin C

- by Timothy O'Shea, medical researcher

Without further ado, here's the kernel: ascorbic acid is not vitamin C. Alpha tocopherol is not vitamin E. Retinoic acid is not vitamin A. And so on through the other vitamins. Vast sums of money have been expended to make these myths part of Conventional Wisdom. If you have several college degrees and all this is news to you, don't feel bad. Unless you think your education ended at Commencement. Which is generally true.

Wheels Within Wheels

Vitamins are not individual molecular compounds. Vitamins are biological complexes. They are multi-step biochemical interactions whose action is dependent upon a number of variables within the biological terrain. Vitamin activity only takes place when all conditions are met within that environment, and when all co-factors and components of the entire vitamin complex are present and working together. Vitamin activity is even more than the sum of all those parts; it also involves timing.

Vitamins cannot be isolated from their complexes and still perform their specific life functions within the cells. When isolated into artificial commercial forms, like ascorbic acid, these purified synthetics act as drugs in the body. They are no longer vitamins, and to call them such is inaccurate.

A vitamin is "a working process consisting of the nutrient, enzymes, coenzymes, antioxidants, and trace minerals activators." - Royal Lee "What Is a Vitamin?" *Applied Trophology,* Aug 1956

Forgotten Trailblazer

Dr. Royal Lee was the pioneer researcher in the field of whole food vitamins. For decades he documented the basic facts summarized in this chapter. His work has never been scientifically refuted. Anyone who seriously undertakes the study of vitamins today corroborates Lee's work. His story is a fascinating study in itself, a study of indomitable perseverance in the pursuit of true principles. Jensen tells us that Royal Lee's work will not be appreciated until the next century.

Hasn't happened yet.

Lee felt the full weight of organized drugs/medicine bearing down on him. Reading like something out of *Schindler's List*, we learn that the FDA not only persecuted Lee for challenging the economics of synthetic vitamins, produced by giant drug companies, but that he was actually ordered by a court to burn all his research of the past 20 years! Burn his research! When has that ever happened in this country? They didn't even do that to Larry Flynt.

Going off on a tangent, ever wondered how the FDA attained its present position as attack dog for the drug companies and food manufacturers? It's another whole story in itself. The precursor of the FDA was the Bureau of Chemistry. Up until 1912 the Bureau of Chemistry was headed up by a man named Dr. Harvey W. Wiley. Here's a quote from Dr. Wiley that illustrates where his interests lay:

"No food product in our country would have any trace of benzoic acid, sulfurous acid or sulfites or any alum or saccharin, save for medical purposes. No soft drink would contain caffeine or theobromine. No bleached flour would enter interstate commerce. Our foods and drugs would be wholly without any form of adulteration and misbranding. The health of our people would be vastly improved and the life greatly extended. The manufacturers of our food supply, and especially the millers, would devote their energies to improving the public health and promoting happiness in every home by the production of whole ground, unbolted cereal flours and meals."

- *The History of a Crime Against the Pure Food Law,*1912

Now obviously we can't have a dangerous lunatic like this in charge of the public nutrition, can we? Dr. Wiley actually filed suit against the Coca-Cola company in an attempt to keep their artificial product out of interstate commerce, and off the market. Fortunately, Wiley was eventually replaced by a saner individual, more attuned to the real nutritional needs of the American people, as determined by the experts who knew what was best for us: the food manufacturers. This was Dr. Elmer Nelson, and in his words we get an idea of the change in philosophy that marked the transformation of the Bureau of Chemistry into the FDA:

"It is wholly unscientific to state that a well-fed body is more able to resist disease than a poorly-fed body. My overall opinion is that there hasn't been enough experimentation to prove that dietary deficiencies make one susceptible to disease." - Elmer Nelson MD, *Washington Post* 26 Oct 49

Bernard Jensen illustrates how the tobacco industry and the food giants like Coke were indirectly behind the legal persecution of Royal Lee. Cigarette ads in the 40s and 50s showed medical doctors promoting the digestive benefits of smoking Camels. Or the advertising of Coke and other refined sugar foods stating that "science has shown how sugar can help keep your appetite and weight under control." (*Empty Harvest)*

During this same period, Royal Lee was kept in courts for years, fighting to keep the right to advertise his vitamin products, because he was a threat to the food manufacturers. Lee knew they were poisoning the American public. He proved that refined sugars and devitalized, bleached flours were destroying the arteries and the digestive system, causing heart disease and cancer.

Whole Vs. Fractionated

OK, natural vs. synthetic. Let's start with vitamin C. Most sources equate vitamin C with ascorbic acid, as though they were the same thing. They're not. Ascorbic acid is an isolate, a fraction, a distillate of naturally occurring vitamin C. In addition to ascorbic acid, vitamin C must include rutin, bioflavonoids, Factor K, Factor J, Factor P, tyrosinase, ascorbinogen, and other components.

In addition, **mineral co-factors** must be available in proper amounts.

If any of these parts are missing, there is no vitamin C, no vitamin activity. When some of them are present, the body will draw on its own stores to make up the differences, so that the whole vitamin may be present. Only then will vitamin activity take place, provided that all other conditions and co-factors are present. Ascorbic acid is described merely as the "antioxidant wrapper" portion of vitamin C; ascorbic acid protects the functional parts of the vitamin from rapid oxidation or breakdown. (Somer, p 58 "Vitamin C: A Lesson in Keeping An Open Mind" *The Nutrition Report)*

Over 90% of ascorbic acid in this country is manufactured at a facility in Nutley, New Jersey, owned by Hoffman-LaRoche, one of the world's biggest drug manufacturers (1 800 526 0189). Here ascorbic acid is made from a process involving cornstarch and volatile acids. Most U.S. vitamin companies then buy the bulk ascorbic acid from this single facility. After that, marketing takes over. Each company makes its own labels, its own claims, and its own formulations, each one claiming to have the superior form of vitamin C, even though it all came from the same place, and it's really not vitamin C at all.

Fractionated = Synthetic = Crystalline = Fake

The word “synthetic” means two things:

- manmade
- occurs nowhere in nature

From the outset, it is crucial to understand the difference between vitamins and vitamin activity. The vitamin is the biochemical complex. Vitamin activity means the actual biological and cellular changes that take place when the stage is set for the vitamin complex to act.

Think of it like gas and a car. Pumping the gas into the tank doesn't necessarily mean the car is going anywhere. Other conditions and factors must be also present, in order for Activity to occur. The gas line to the carburetor must be clear, the carburetor jets must be set, there must be an exact mixture of air flow, the ignition must be turned on, the spark plugs must be clean, the exact amount of gas must reach each spark plug right before it fires, no gas must be left over in the cylinder after the plug fires Getting the idea? If any of this stuff is missing, there's no Activity: the car doesn't run, or at least not very well.

Amazing as it may sound if you're hearing this for the first time, vitamins are more than the synthetic fractions we are commonly taught they are. The ascorbic acid you buy at the grocery store every few weeks, thinking you are buying Vitamin C, is just a chemical copy of naturally occurring ascorbic acid, which itself is still only a fraction of the actual Vitamin C. Real vitamin C is part of something living, and as such, can impart life.

Your synthetic, fractionated chemical ascorbic acid never grew in the ground, never saw the light of day, never was alive or part of anything alive. It's a chemical, a cornstarch derivative, a sulfuric acid by-product. In your body it's just

another drug. Synthetic vitamins have toxic effects from mega-doses and actually can increase the white blood cell count. Vitamins are only necessary in minute quantities on a daily basis. Whole food vitamins, by contrast, are not toxic since the vitamin is complexed in its integral working form, and requires nothing from the body, and triggers no immune response.

Deficiency

Scurvy is a disease caused by vitamin C deficiency. Scurvy is characterized by bleeding gums, slow wound healing, softening bones, loose teeth, ulcerations of the mouth and digestive tract, general weight loss and fatigue. From 1650 to 1850 half of all seamen on transoceanic voyages died of scurvy. It was discovered by ship surgeon Thomas Lind in the early 1800s that British sailors were spared the disease altogether simply by a diet rich in citrus fruits. Since limes traveled well, they were the common choice during the early years, and thus the expression "limeys" was coined to describe British sailors. It was later found both at sea and in prison fare that potatoes were equally successful in preventing scurvy, and much cheaper to obtain. (*Lancet*. 1842) We find that there is less than 20 mg of ascorbic acid in a potato. Yet this small amount, since it is complexed in a food source, is all the body needs not only to prevent scurvy, but also to cure it, even in its advanced state. Such a remedy is described in detail in Richard Dana's amazing journal, *Two Years Before the Mast*, written in 1840.

Whole food vitamin C as found in potatoes, onions, and citrus fruits is able to quickly cure any case of scurvy. By contrast, the fractionated chemical ascorbic acid has been shown to be insufficient in resolving a scurvy condition, simply because it does not act as a nutrient. (*Lancet* 1842)

Ascorbic acid simply cannot confer vitamin activity, as taught by the discoverer of vitamin C himself, another Nobel Prize laureate, Dr. Albert Szent-Georgi.

Szent-Georgi discovered vitamin C in 1937. In all his research however, Szent-Georgi found that he could never cure scurvy with the isolated ascorbic acid itself. Realizing that he could always cure scurvy with the "impure" vitamin C found in simple foods, Szent-Georgi discovered that other factors had to be at work in order for vitamin activity to take place. So he returned to the laboratory and eventually made the discovery of another member of the vitamin C complex, as shown in the diagram above: rutin. All the factors in the complex, as Royal Lee and Dr. Szent-Georgi both came to understand, ascorbic acid, rutin, and the other factors, were synergists: co-factors which together sparked the "functional interdependence of biologically related nutrient factors." (*Empty Harvest*, p120) The term "wheels within wheels" was used to describe the interplay of co-factors.

Each of the other synergists in the C complex has a separate function:

- P factors for blood vessel strength,
- J factors for oxygen-carrying capacity of red cells,
- tyrosinase as an essential enzyme for enhancing white blood cell effectiveness.

Ascorbic acid is just the antioxidant outer shell – the protector of all these other synergists so that they will be able to perform their individual functions.

Linus Pauling and Ascrobic Acid

Now I can hear you asking, what about Linus Pauling, double Nobel Prize laureate, and his lifetime espousal of megadosing on ascorbic acid – up to 10 grams per day? He lived to be 93. Are we saying that he took a synthetic vitamin all that time? Yes, that's exactly right. Bernard Jensen suggests that ascorbic acid has an acidifying effect in the body, making an unfriendly environment for viruses, *Candida*, and pathogenic bacteria. "Most infectious pathogenic bacteria thrive in an alkaline pH." Pauling's good health was not the result of synthetic vitamin activity. Good genetics and the acidifying effect are likely what brought longevity to Linus Pauling. He eventually died of cancer.

Dr. Royal Lee's phrase "biological wheels within wheels" always comes up in any discussion of whole food vitamins. Essentially it means that individual synergists cannot function as a vitamin in a chemically isolated form, like ascorbic acid. Vitamins are living complexes which contribute to other higher living complexes – like cell repair, collagen manufacture, and maintenance of blood circulation. Ascorbic acid is not a living complex. It is a copy of a part of a living complex known as vitamin C. Ascorbic acid is a fractionated, crystalline isolate of vitamin C.

Why are you a high school graduate or a college graduate or a doctor, and you don't know this? Because drug manufacturers like things clean and simple and cheap to produce. To this simple fact add the politics which always

comes into play when anyone mentions the word "billions," and you are beginning to get the idea about where to begin your investigation. Burned his research???

Dietary Sources

Most vitamins cannot be made by the body. They must be taken in as food. The best sources then are obviously whole foods, rich in vitamins. Because of soil depletion, mineral depletion, pesticides, air pollution, and erosion, it is common knowledge that foods grown in American soil today have only a fraction of the nutrient value of 50 years ago. That means a fraction of the vitamins and minerals necessary for normal human cell function. Royal Lee described the American diet as the cultivation and production of "devitalized foods." Dr. Weston Price describes these empty products as the "foods of commerce." Think it's gotten better or worse since their time? Thus the necessity for supplementation.

Vitamins and minerals are not functionally separable. They make each other work. Example: vitamin D is necessary for the body to absorb calcium. Copper is necessary for vitamin C activity. And so on. Mineral deficiencies can cause vitamin deficiencies, and vice versa. Epidemic mineral deficiency in America is a well-documented result of systematic soil depletion. (See Minerals chapter: thedoctorwithin.com)

So that is the other prime difference between whole food vitamins and synthetics: whole food vitamins contain within them many essential trace minerals necessary for their synergistic operation. Synthetic vitamins contain no trace minerals, relying on, and depleting, the body's own mineral reserves.

Funny Farms

Following the German agricultural methods of Von Leibig in the mid-1800s, American farmers found that NPK (nitrogen, phosphorus, and potassium) was all that was necessary for crops to look good. (Frost p7) As long as NPK is added to the soil, crops can be produced and sold year after year from the same soil. They look OK. But the other necessary trace minerals vital for human nutrition are virtually absent from most American soil after all these years. Many of these minerals, such as zinc, copper, and magnesium, are necessary co-factors of vitamin activity. Depleted topsoil is one simple, widespread mechanism of both vitamin and mineral deficiency in American produce today. This doesn't even take into account the tons of poisonous herbicides and pesticides dumped on crops. According to the UN, two million tons of pesticides are used worldwide annually. (Jensen, p69)

American agri-business has one motive: **profit**. Such a focus has resulted in an output of empty produce and a nation of unhealthy people. The earth's immune system is its soil. To be vital and capable of growing vital foods, soil must be rich in both minerals and soil-based organisms - life forms. Healthy produce naturally resists insects. Insects are like bad bacteria in the body: they are attracted to diseased tissue, though they do not cause it.

The Foods of Commerce

And we're still only talking about people who actually eat raw fruits and vegetables, which is a minority. Processed food composes the majority of what most Americans eat. The only nutrients in most processed foods are "enriched" and "fortified" as described below.

When a doctor says that food supplements are all unnecessary because we can get everything we need from our food, that doctor is lacking basic information published and agreed upon by his own peers. Whether or not we need supplementation is no longer an issue, except for one who is totally out of touch. The issue is what kind and how much. Vitamin and mineral deficiency can be tagged to practically ANY disease syndrome known to man. DW Cavanaugh, MD of Cornell University actually concluded that:

"There is only one major disease, and that is malnutrition." (Jensen, p8) Malnutrition of the affluent is the natural result of the foods of commerce.

Websurfing

The best vitamins are called **whole food vitamins**. It will be difficult finding this out on the Internet, however, because the Web is dominated by mainstream nutritional theory. In the area of vitamins, the Internet is 99% marketing; 1% actual information.

But then again, this isn't Mission Difficult. This is Mission Impossible, Mr Hunt.

There are about 110 companies who sell vitamins in the US. Less than 5 of them use whole food vitamins. The reason is simple: whole food vitamins are expensive to make. A few of the largest pharmaceutical firms in the world mass produce synthetic vitamins for the vast majority of these 110 "vitamin" companies, who then put their own label on them, and every company claims theirs is the best! It's ridiculous! Americans spend over $9 billion per year for synthetic vitamins. (Frost, p2)

Whole food vitamins are obtained by taking a vitamin-rich plant, removing the water and the fiber in a cold vacuum process, free of chemicals, and then packaging for stability. The entire vitamin complex in this way can be captured intact, retaining its "functional and nutritional integrity." (DeCava p.23.) Upon ingestion, the body is not required to draw on its own reserves in order to complete any missing elements from the vitamin complex.

Mainstream marketing of vitamins and minerals has successfully created the myth that vitamins and minerals may be isolated from each other, that correct amounts may be measured out, and then we can derive total benefit from taking these fractionated chemical creations. Nothing could be farther from the truth. Vitamins and minerals, and also enzymes, work closely together as co-factors for each other's efficacy. If one part is missing, or in the wrong form or the wrong amount, entire chains of metabolic processes will not proceed normally. Result: downward spiralling of health, probably imperceptible for long periods of time.

Marketing and Promotion

What is the marketing philosophy behind the prevalence of the type of synthetic vitamins available in the supermarket and mall vitamin stores? Simple: profit above all else. Once the public is shown that vitamin supplementation is necessary, the rest is marketing. Marketing is the art of persuading by suspending logic and twisting data into junk science.

Example: what's the actual difference in composition between Wheaties and Total, two cereals put out by the same company? Total is advertised as being much more nutrient-rich than "ordinary" Wheaties. Look at the labels. What justifies the extra $1.30 for a box of Total? Answer: 1.5¢ worth of synthetic vitamins sprayed over the Wheaties. That's it! That's what **"vitamin enriched"** always means.

The other trick word is "fortified." Generally that means that the food itself is devoid of nutrients or enzymes, so they tried to pump it up a little with some "vitamins." Cheap synthetic vitamin sprays are all that is required for the manufacturer to use labels like "enriched" and "fortified." These words are red flags – if a food needs to be fortified or enriched, you can bet it was already dead.

The mega-vitamin theory doesn't really hold when it comes to synthetics: If A Little Is Good, More Is Better. Macro doses of vitamin E, and also vitamin D have been shown to decrease immune function significantly. (DeCava.) It stands to reason. Vitamins by definition are necessary in phenomenally small doses.

The discoverer of thiamine, a B vitamin, and the man who came up with the word vitamin, Dr. Casimir Funk, has this to say about synthetics:

"Synthetic vitamins: these are highly inferior to vitamins from natural sources, also the synthetic product is well known to be far more toxic."

Nutrition authority DeCava describes it: "Natural food-source vitamins are enzymatically alive. Man-made synthetic vitamins are dead chemicals. " -- *The Real Truth About Vitamins p*209

Oxymorons: military intelligence, rap music, synthetic vitamins.

High Potency

The marketing of fractionated crystalline synthetic vitamins has been so successful that most nutritionists and doctors are unaware that there is something missing from these "vitamins." Vitamin manufacturers compete for customers with identical products – they all bought their synthetic vitamins from the same couple of drug companies. To differentiate their product, each makes claims of "high potency." Our vitamins are higher potency than theirs, etc. The point is, the higher the potency, the more the druglike effects are present.

Natural whole food vitamins are very low potency. Remember the 20mg of vitamin C in a potato that was able to cure a patient of scurvy? That was low potency. Low potency is all we need. Low potency is enough to bring about vitamin activity. High potency overshoots the mark – the chemical is very pure and refined, like the difference between white sugar and the type of sugar that's in an apple.

The Milligram Game

Generally speaking, if milligrams are being discussed at length, the author has no clue about vitamins. Synthetic vitamins are refined, high potency chemicals, and therefore may be accurately measured in milligrams, just like drugs. This has nothing to do with vitamin activity or nutrition, except in a negative way.

Half The Story

The same type of incomplete action can be seen with any synthetic vitamin. Let's take beta carotene for a minute, which the body can turn into vitamin A. Now you'll remember that vitamin A is necessary for good eyesight, DNA synthesis, and protects cells from free radicals. A study reported in Apr 94 in the NEJM of some 30,000 Finnish subjects showed conclusively that synthetic vitamin A had no antioxidant effect whatsoever. A true antioxidant helps to protect heart muscle, lungs, and artery surfaces from breaking down prematurely.

In this study, the subjects who received the synthetic beta carotene actually had an 8% higher incidence of fatal heart attacks, strokes, and lung cancer than those who got the placebo (sugar pill). Stands to reason: the synthetic brought no vitamin activity to the tissues that needed it. As a dead, purified chemical introduced into the body, the synthetic further stressed the immune system, the liver, and the kidneys which all had to try to break down this odd chemical and remove it from the body. It would be bad enough if they were harmless, but synthetic vitamins actually have a net negative effect.

Vitamin A

was first discovered in 1919. By 1924, it had been broken down and separated from its natural whole food complex: "purified." By 1931, LaRoche – one of the largest pharmaceutical companies in the world, even today – had succeeded in "synthesizing" vitamin A. That means they had created a purely chemical copy of a fraction of naturally occurring vitamin A. Naturally occurring vitamin A is found associated with an entire group of other components:

- Retinols
- Retinoids
- Retinal
- Carotenoids
- Carotenes
- Fatty acids
- Vitamin C
- Vitamin E
- Vitamin B
- Vitamin D
- Enzymes
- Minerals (*Vitamins and Minerals*, Somer, 1992)

Isolated from these other factors, vitamin A is a fraction which cannot perform its biological functions. Taken as a synthetic, it must then draw on this list of resources already in the body in order to complete its make-up. Whole food vitamin A, by contrast, is already complete and ready to go.

Most synthetic vitamin A consists only of retinal, retinol, or retinoic acid. The well-publicized potential for toxicity with mega doses of vitamin A involves one of these three. Vitamin A toxicity, known as hypervitaminosis, always results from an excess of synthetic, "purified" vitamin A, and never from whole food vitamin A. (DeCava, p 86)

Effects of vitamin A toxicity include:

- tumor enhancement
- joint disorders
- osteoporosis
- extreme dryness of eyes, mouth and skin,
- enlargement of liver and spleen
- immune depression
- birth defects

Beta Carotene

-- is a precursor the body can convert to vitamin A. Unfortunately, as a supplement, synthetic beta carotene is usually "stabilized" in refined vegetable oils. In this trans fatty acid form, oxidation occurs and the chemically "pure" beta carotene can no longer act as a nutrient, because it was changed. Almost all synthetic beta carotene is produced by the Swiss drug giant Hoffman-LaRoche. This form can no longer be converted to vitamin A. The best it can be is worthless, and at the worst is toxic.

Natural vitamin A and beta carotene are well known as immune boosters and cancer fighters, in their role as antioxidants. Synthetic vitamin A by contrast has actually brought about significant increases in cancer. A study done in Finland provided smokers with large doses of synthetic beta carotene. Lung cancer incidence increased 18%! (*NEJM* Apr 94, "The Alpha Tocopherol Beta Carotene Cancer Prevention Study Group")

These findings were corroborated two years later in another study written up in *Lancet*. Pharmacologic doses of syntheric beta carotenes were found to block the antioxidant activity of the other 50 naturally occurring carotenoids in the diet. Anti-cancer activity was thus blocked by the synthetic. (*Lancet*, 1996)

With the vast outpouring of wrong information about vitamins A and C, the findings of a 1991 article in Health Counselor are no surprise: 50% of Americans are deficient in vitamin A and 41% are deficient in vitamin C. Synthetic vitamins cannot prevent deficiencies.

Fake Vitamin B

In one experiment, synthetic vitamin B (thiamine) was shown to render 100% of a group of pigs sterile! 100% would be considered a significant finding. (Dr. Barnett Sure, *Journ Natr*, 1939) Perhaps the fact that synthetic vitamin B comes from coal tar, maybe that has something to do with it, you think? Then there's vitamin B12, which comes from activated sewage sludge. (Frost p 60) Been shooting blanks since you started on those multi's?

For the licensed dieticians and clinical nutritionists reading this in disbelief because it is too "unscientific," consider the way Theron Randolph, M.D., delineated between natural and synthetic:

"A synthetically derived substance may cause a reaction in a chemically susceptible person when the same material of natural origin is tolerated, despite the two substances having identical chemical structures. The point is illustrated by the frequency of clinical reactions to synthetic vitamins – especially vitamin B1 and C- when the [same] naturally occurring vitamins are tolerated."

Irradiation

According to Los Angeles naturopath, Dr. Jack Singh, all commercial lecithins in supplements, as well as most vitamin D, comes from irradiated vegetable oils. That's rancid, oxidizing trans fatty acids! A birthday party of free radicals. This is the precise mechanism for arterial wall breakdown prior to plaque deposits, then arteriosclerosis, then heart disease. I thought we were supposed to be taking vitamins to stay healthy!

Lost Horizon

Why is this information so difficult to find? It's in none of the "alternative" health 'zines, or any of the mainstream media. Alternative-Lite guru Julian Whittaker, in his summer 1998 newsletter actually had the temerity to state outright "Synthetic vitamins and whole food vitamins are identical." I'm sure his synthetic vitamin company and all its retailers were reassured by this incredibly arrogant and flagrantly inaccurate pronouncement. But who is objecting? Only those clients of the 5 companies who know enough to take whole food vitamins, because they have become educated to realize the difference. These are the vast minority, having no control of the media.

Royal Lee and Harvey Wiley lost. Nobody knows who they are today, except we few. This is no accident. What everybody does know is Pepsi and Viagra and Wonder Bread and prednisone and Double Whoppers with Cheese and Zantac and Baskin-Robbins and Long's Drug Store. And grocery store vitamins: synthetic vitamins. That's America, today as the product of yesterday. Control of information in America today is one of the most sophisticated systems of influence ever devised. The simple ideas contained in this chapter are simply not available to the mass consciousness. The documentation is out there, but you really gotta dig.

100 years ago if a medical doctor saw a case of cancer he would call all his colleagues to come and have a look, telling them it was unlikely they would see another case, as cancer was so rare. People rarely died of heart attacks; in fact the term heart attack itself didn't even exist. There was no incidence at all of atherosclerosis. Diabetes was

practically unheard of. What did they eat? Fruits, vegetables, meat, butter, and lard. But none of it was processed with drugs and chemicals.

Today one in three dies of cancer. One in two dies of heart disease. Diabetes is the seventh leading cause of death in the U.S. (***Vital Statistics***) Is that progress? If you are a food manufacturer it is, and especially if you are a drug manufacturer. In the 1980s the WHO ranked the US as #22 in the world in infant mortality. Male sperm count is less than 20% of what it was in 1929. (1981 University of Florida report, *Natural vs. Synthetic*) Infant mortality is up; birth defects are up. We spend $1.5 trillion per year for health care, most of which goes for administration and executive salaries.

Who are the largest advertisers for TV and the printed media? Right: drug companies and food manufacturers. Do they want to keep the ball rolling? You bet. Will they kill you to do it? You bet. Do they want people to take charge of their own health by natural inexpensive foods and supplements? Negative. A cure for cancer has been "right around the corner" since Nixon. People are starting to ask questions; they're less inclined to believe the slick ads coming every 10 minutes on TV and in *Newsweek.*

Perhaps Hippocrates did not envision doctors as detail men or drug reps. He most likely thought like Henry Bieler, MD:

“Nature, if given the opportunity is always the greatest healer. It is the physician's role to assist in this healing, to play a supporting role.” - *Finding the Right Cure for You*

So what do you do? Well, you now have some insight that your vitamin needs are not being met by the Safeway generics. Wallach used to talk about expensive urine from these unmetabolized grocery store synthetic placebos.

The water soluble vitamins are best obtained through organic produce grown in mineral-rich soil. The fat soluble vitamins, A, E, and D are best obtained through fish, raw dairy, avocado, raw nuts, raw coconut, and clean meats.

Beyond this it's MLM marketing roulette, and if you can't spot the mark in the first 5 minutes, baby, it's you.

Note: Underlining added for emphasis

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