

**Grown By Nature presents:
Re-Natured® (Food State) Nutrients
“The Future- Here Today”
*Dr. Peter Mansfield***

**Summary Report from the First International Dead Sea Conference,
1992 “Reintegrating Nutrition”**

Dr. Peter Mansfield (M.A., M.B, B Chir., Cert G.A.M., M.I, Psi.Med)

Re-Natured Nutrients:

21st Century Nutritional Supplements.....

**...Supplements that are proven by extensive scientific research
to be more effective than anything else available.**

**.....Supplements proven in a \$3,000,000 Lawsuit and using
NASA technology to be unique and superior to “today’s”
normal, isolated chemical nutrients.**

**...Supplements that are- quite literally- the next
best thing to food.**

**“Re-Natured® nutrients are the Biggest Breakthrough in
Nutrition in Decades”**

**“Clinical studies in humans confirm that Re-Natured®
nutrients have quite different biodynamics,
potency and tissue availability.”**



The Author

Dr. Peter Mansfield was educated at Cambridge University and University College Hospital Medical School, where he was Research Fellow in Community Medicine before becoming a full-time General Practitioner in London, and later in Lincolnshire. He used his practice to make health real for people, reintroducing home births in Lincolnshire and drastically reducing reliance on drugs.

He is an author of several books and scientific papers, many leaflets and magazine articles, and a network television series on health, he founded Templegarth trust in 1980 and Good HealthKeeping in 1987. He retired early from the NHS in 1996, after 28 years, to concentrate on Good HealthKeeping. Dr. Peter Mansfield is currently working with Re-Natured® nutrients in Europe.

Contents:

Introduction	3
What are Isolated Chemical Vitamins and Minerals?	3
Our bodies react differently	4
Re-Natured®- A Return to Nature	5
Bonding and Isolated USP/BP nutrients	6
Chelated Minerals are no Exception	7
Proof Upon Proof	9
Study Shows the Drastic Reduction of Colon Polyps*	10
Extended 1 Year Study Reduction of Colon Polyps*	11
Antioxidant Efficacy Study	12
The Ultimate Proof	13
The Importance of Trials on Actual Supplements	13
Not Guilty...but it cost \$3,000,000	14
The Verdict	14
Summary of University Studies	15

Introduction:

Dr. Peter Mansfield writes:

With an ever increasing demand for supplements it is essential to understand what is available to you, the consumer, to be able to choose what best suits your requirements.

It may surprise you to learn that typical shop vitamins and minerals which form the basis of most people's supplementation for health are chemicals, known in the industry as "USP" or "BP" isolated form nutrients.

With recent statistics revealing that 1 in 3 adults, and 1 in every 4 young adults (age range 15 to 25), taking some type of nutrient supplement on a regular basis, it behooves us to purchase supplements that are most effective for our needs.

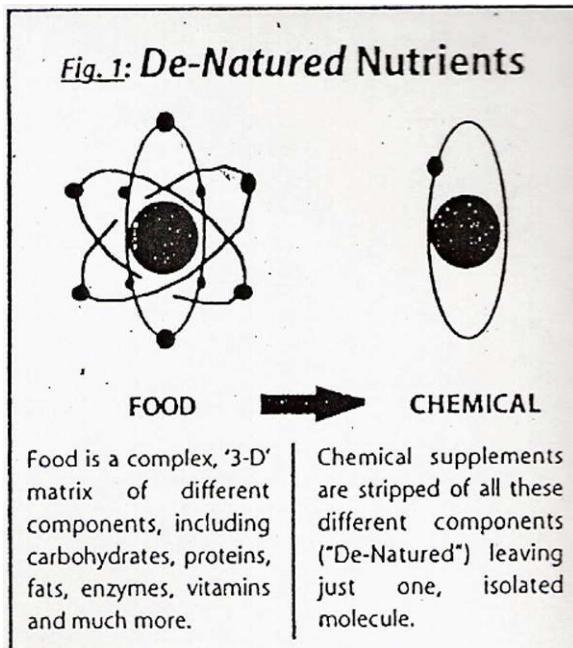
We all recognize that we should get all these essential vitamins and minerals from good organic (wholesome) food. However, with mineral depletion of the soil, environmental issues, processed foods, demands on growers, etc, most of us admit that we take supplements because we want that additional preventative or protective security factor.

If we admit that the best source of proper vitamins and minerals are contained in food then ideally our supplements should also be in a food form.

What are Isolated Chemical Vitamins and Minerals?

Vitamins and minerals present in food are contained within a complex component matrix of proteins, lipids (fats) carbohydrates, enzymes, nucleic acid and much more.

These components dwarf the amount of actual vitamin and mineral present within the matrix. Scientists copy the tiny vitamin or mineral molecule to make a chemical replica. For example Ascorbic Acid in the case of Vitamin C. In effect Ascorbic Acid is a "De-Natured" nutrient. (Fig. 1)



Whilst the Vitamin C molecule itself is identical to that within the food matrix, it is isolated, and our body reacts differently when presented with this rather than when it is in the matrix (food) form. These isolated vitamins and minerals are referred to as USP (United States Pharmacopoeia) nutrients or BP (British Pharmacopoeia) nutrients.

It appeared that in some way the "purification" of the vitamins from their natural food

source downgraded their activity and thus benefits to the body. A simple example is that of sugar- whereas sugar cane can be chewed harmlessly-refined sugar triggers responses which lead to diabetes, stomach ulcers and so forth.

Our bodies react differently

To understand more fully how our bodies react to supplementation with isolated chemicals and food, let's take a quick look at cell biology. For practical purposes the body comprises three fluid compartments.

-Extracellular fluid (ECF)
– contained by the outer skin and in direct contact with the circulating blood and lymph.

-Intracellular fluid (ICF) –

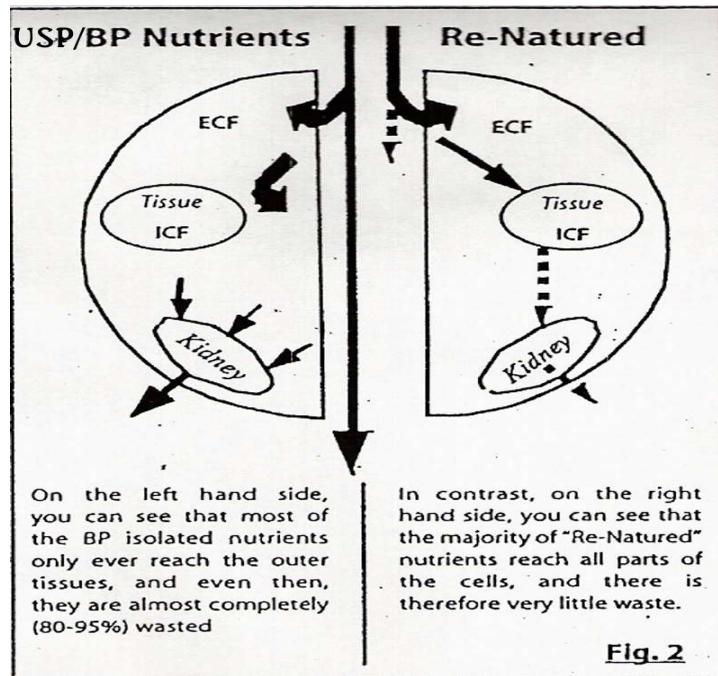


Fig. 2

contained within the membrane of the cells

-Secreted fluid (SF) – produced by cellular activity (can be bracketed for most purposes with ICF).

Nutrients presented as part of food (i.e. Re-Natured®) are absorbed and distributed fully and freely throughout these spaces. (Fig. 2)

Materials not in this form can be treated by our bodies as alien to the body, leading to a defensive reaction.

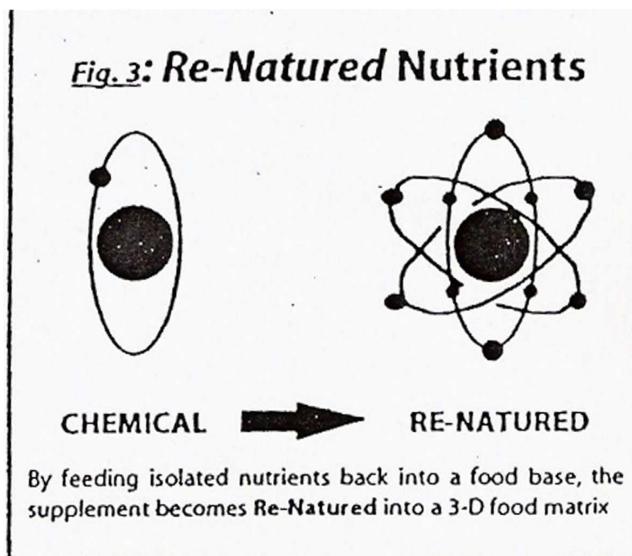
(Fig. 2)

*In less healthy individuals these defenses are less rigorous so a larger proportion of the chemical vitamin can enter the body's cells. Debilitated people with nutritional deficiencies can obtain some benefit from USP chemical nutrients, though this will diminish as they recover. Perhaps of more concern, as they recover the intestine is likely to become intolerant of this chemical nutrient with allergic reactions as a possibility.

Re-Natured®- A Return to Nature

It is now possible to find supplements that are almost foods, and are recognized by the body as such. These 21st century supplements are termed Re-Natured® (or Food State) supplements, and are the first supplements that can truly be called supplements. Re-Natured® supplements have the nutritional structure of food.

The unique and outstanding feature of Re-Natured® nutrients is the complete bonding of the micronutrients into a food matrix. This does not mean physically mixing the vitamins with proteins, carbohydrates etc, but involves a 'growing' process like a plant from seed. The process by which the bonding process occurs



(at molecular level) is a complex patented process, and maybe a little difficult to grasp. (Fig. 3)

This process leads to a highly active form of nutrient, for which overwhelming scientific evidence shows the nutrient is not just mixed in the food, but is bonded naturally as it would be in the food.

Indeed, scientific examination proves that Re-Natured® nutrients are up to 97% bonded to the food co-factors they are ‘fed’ into.

It is this complete matrix of food co-factors that the body naturally recognizes as food, and is therefore what makes Re-Natured® nutrients so much more effectively absorbed and utilized than normal USP/BP supplements (Fig. 4).

Re-Natured® supplements are stored in ICF and solid tissues, forming an accumulative reserve. Experience suggests that 4 months of supplementation with these supplements can remain effective up to 18 months later.

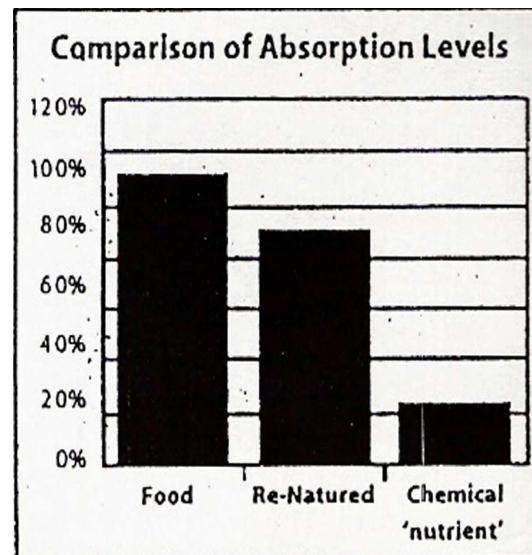


Fig. 4

Bonding and Isolated USP/BP nutrients

Manufacturers often mix ingredients to improve absorbability and utilization. There are three main problems with this:

- Firstly, the individual components are still in isolated forms, and being mixed have a mechanical bond which is far weaker than the natural bond in the whole food
- Secondly, the mix will not have the necessary food matrix components in the mix, i.e. proteins, carbohydrates, lipids and many other important components
- Thirdly, any food components in the mechanical mix will only be one or two compared to the hundreds found in food and Re-Natured® nutrients.

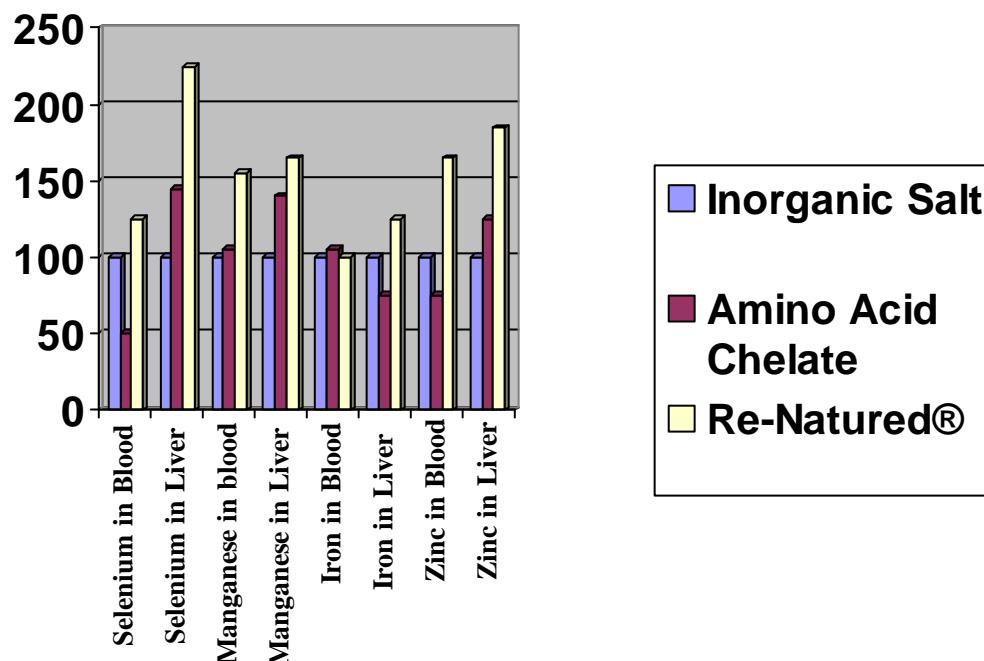
Chelated Minerals are no Exception

Whilst so called chelated supplements have become more popular and are a step in the right direction, they are still only a part of the story. Chelated supplements simply have amino acids (proteins) attached to the inorganic mineral – again no carbohydrates, lipids and so forth. Interestingly, Dr. Carl Pfeiffer tested hundreds of proprietary chelated health food supplements from store shelves, and found the highest chelation level was just 12%!

The Royal Society of Chemistry studied the relative bioavailability of various nutrients, including inorganic salts, chelated minerals, and Re-Natured® minerals. It can be seen that Re-Natured® nutrients are consistently more bioavailable than all the other supplement forms, in all parts of the body. (Fig 5, 6)

*It should be noted that all synthetic values are at 100%. This is simply used as the baseline, which is why they all show 100%. It is the bioavailability of the other nutrients relative to this baseline that is demonstrated by these graphs.

Relative bioavailability of Re-Natured® Minerals Fig. 5



Relative bioavailability of Re-Natured® Minerals (Fig. 5 continued)

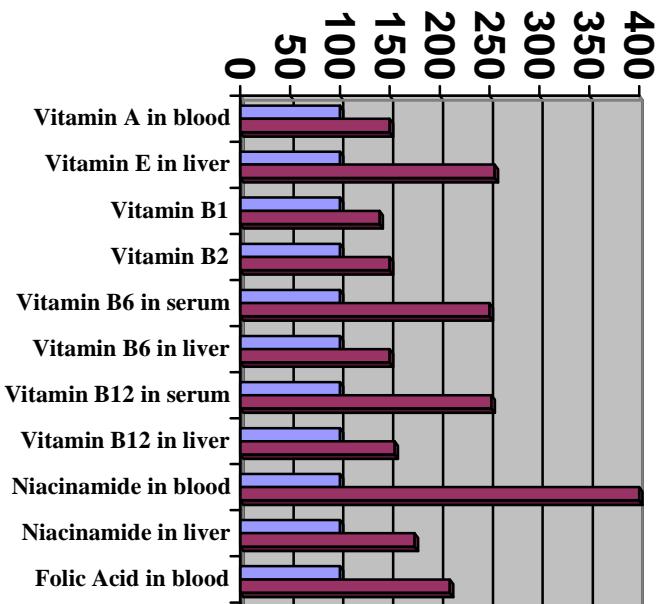
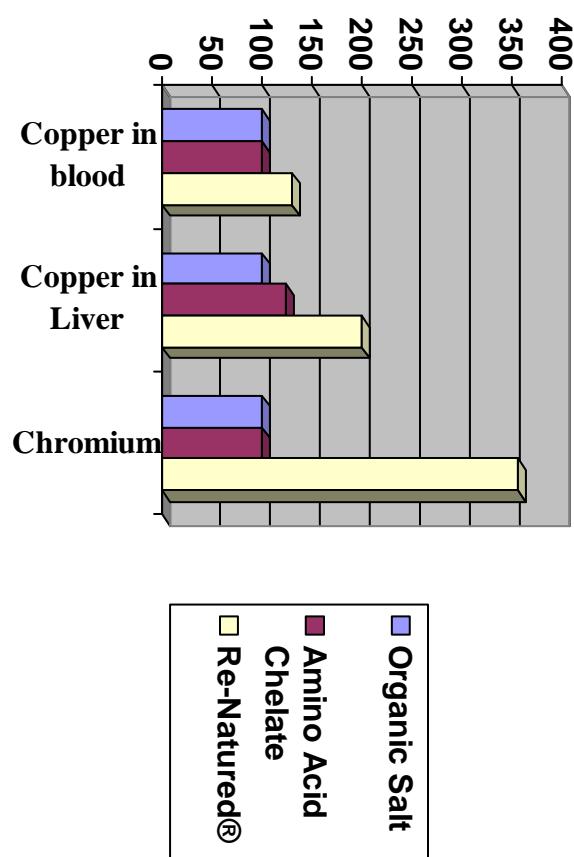
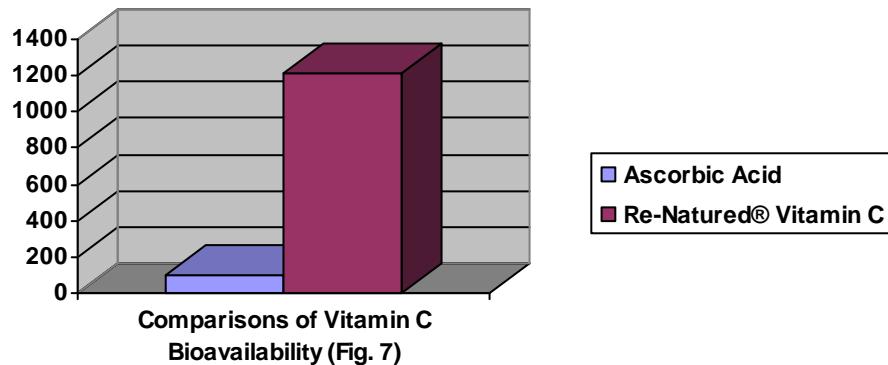


Fig. 6



*Both of these studies (Fig. 5, 6) were published by the Royal Society of Chemistry. As is evident, Re-Natured® vitamins and minerals are far more bioavailable than all the other alternatives available.

At the University of Scranton, PA., Joe A. Vinson, department of Chemistry found Re-Natured® Vitamin C to be 1210% more bioavailable than it's synthetic counterpart, ascorbic acid. (Fig 7)



It should perhaps be explained that bio-availability is a major consideration in assessing a supplement's effectiveness. For instance, the liver does not store isolated USP/BP nutrients, it prefers to dump them as waste! Because the liver recognizes Re-Natured® nutrients as having a 'value', it stores them for release when demand from the body requires them.

Proof upon Proof

Re-Natured® nutrients have an incredible amount of scientific backing. More than 50 scientific studies, some published in highly reputable journals have been conducted, proving again and again the efficacy and superiority of Re-Natured® supplements compared to USP/BP. Not only that, but all the tests have been conducted on the actual products available to the consumer. Very few, if any, supplements are actually tested for their efficacy or bioavailability. Research is almost always conducted on the individual ingredients they contain.

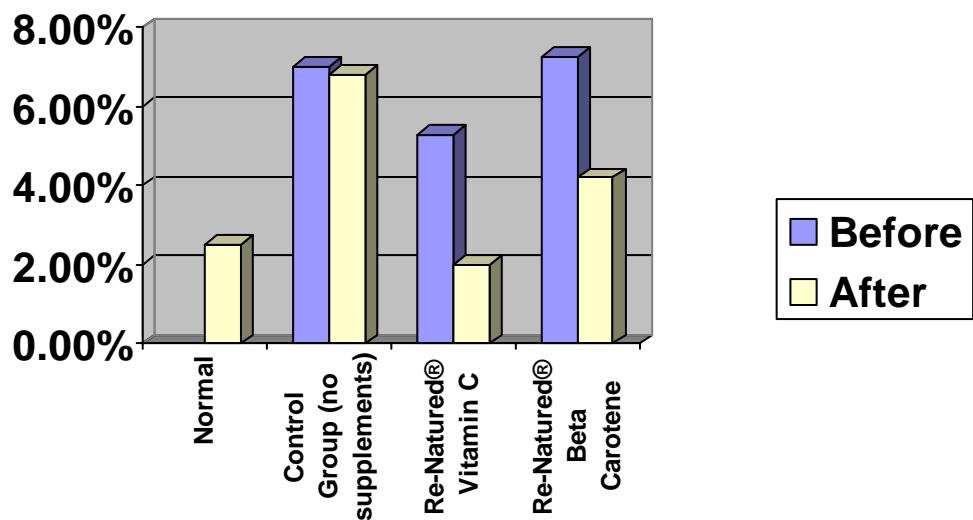
For example, if a company sells an antioxidant supplement and advertises that scientific studies prove that antioxidants help stop free radical damage in the body. The inference is that their particular antioxidant product is proven to work too! Re-Natured® nutrients on the other hand have more than 50 studies that have been conducted on the actual finished supplements, the ones that end up in the consumer's possession.

Study Shows the Drastic Reduction of Colon Polyps*

(*Accurately, it is the number of abnormal cells in the polyps, not the number of polyps.) In a 30 day study at Trinity College in Dublin, researchers found that certain Re-Natured® nutrients dramatically reduced the number of abnormal cells in the polyps in the subjects' colons. (The greater the number of abnormal cells in the polyps, the greater the risk of colon cancer in that individual)

Patients were given Re-Natured® supplements for one month, and colonic biopsy specimens were taken before and after supplementation. Results showed that just 9mg of Re-Natured® Beta-Carotene taken each day dramatically reduced the number of abnormal cells in the polyps in the colon, while 750mg of Re-Natured® Vitamin C per day had an even greater effect on the polyps, reducing them to below 'normal' levels. It is believed that the powerful antioxidant properties of these unique nutrients are responsible for such startling results. The one month study was published in

The Effect of Re-Natured Nutrients on Abnormal Colon Polyps (1 Month)



two internationally recognized medical journals, Gut, 1993, 34:963-967 and the Irish Journal of Medical Science, 1993, 162:102-103. No.7, p.285

Extended 1 Year Study

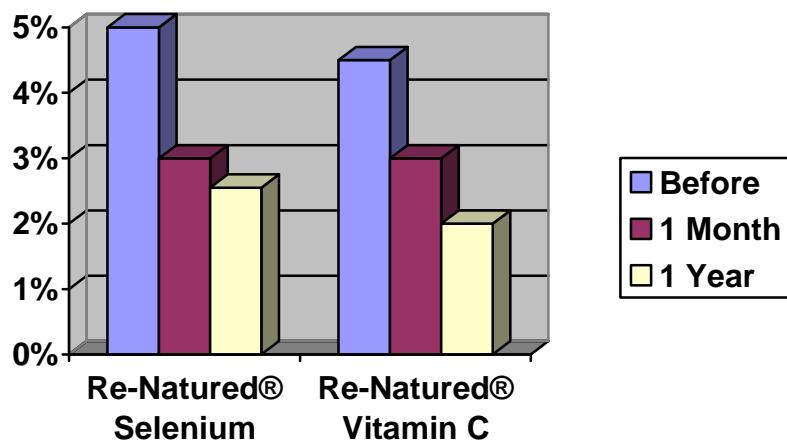
Because the one month results were so amazing, a follow up study was conducted, again at the Trinity College, to verify the long-term effects of Re-Natured® nutrients on abnormal cells in colon polyps.

Patients were divided into two groups. Group 1 took 200mcg of Re-Natured® Selenium every day for a month. Thereafter they took 100mcg each day for 11 months.

Group 2 took 750mg of Re-Natured® Vitamin C for 12 Months.

***In both groups, the number of abnormal cells in the colon polyps were greatly reduced, thereby significantly reducing the risk of colon cancer.**

The Effects of Re-Natured Nutrients on Abnormal Colon Polyps During Long Term Trials



Whilst there is a tremendous drop in the abnormal cells in the colon polyps after just one month of supplementation, there is a continuing drop over the full year. This second study was runner up in the student research prize, and was presented to the American Gastroenterology Association in May 1992.

It then went on to be published in the European Journal of Cancer Prevention, 1993, Vol.2. Supp.II, p.28 and the Irish Journal of Medical Science, 1993, Vol. 162.

Antioxidant Efficacy Study

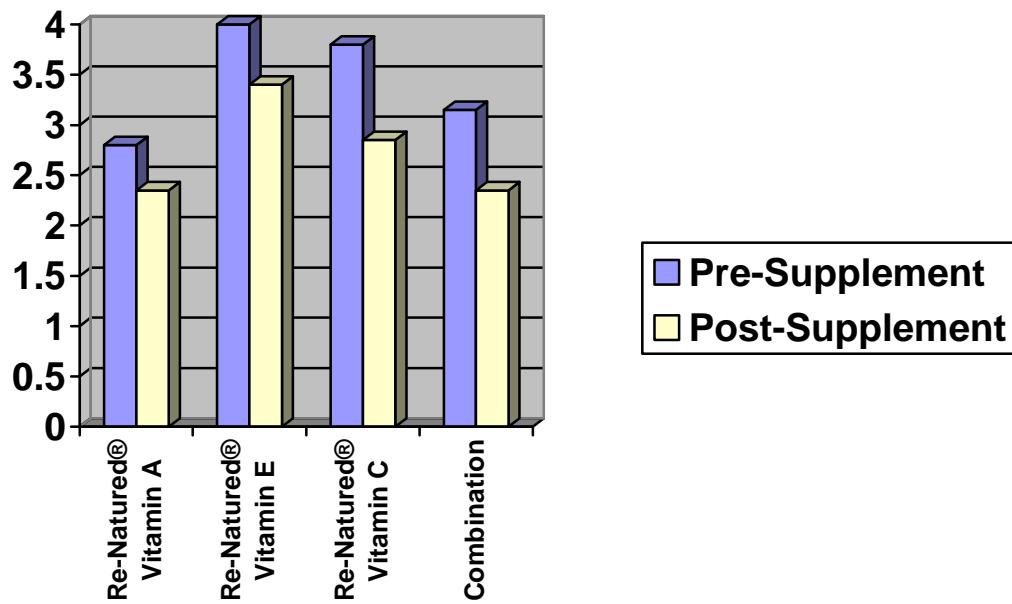
A study at the Department of Chemistry, University of Scranton, USA, was conducted on the antioxidant activity of Re-Natured® Vitamins A, C, and E.

It is widely accepted free-radical damage is one of the primary causes of premature ageing and degenerative disease. Antioxidant nutrients are the only defense we have against such unavoidable damage.

Volunteers were asked to give a blood sample and a urine sample. Once the samples had been taken the subject were given either Re-Natured® Vitamin A, Re-Natured® Vitamin C, or Re-Natured® Vitamin E every day for 2 weeks, after which blood and urine samples were taken again.

Results show that just 2 weeks supplementation with all the vitamins – both individually and combined- profoundly decreased the level of peroxidation caused by free radical damage in the blood.

Overall, however, it was the combination that showed the greatest percentage efficacy, with an average decrease in free radical damage of 30.1% in blood plasma, and 34.1% in urine. This study was published in the Journal of Medical Science Research 1992, 20, 145-146.



The study concluded: “Re-Natured® vitamin and mineral products are differently treated by the body than USP materials – in absorption through the intestinal wall, retention, plasma transportation, liver storage and utilization in the cell, because they are in food form.”

The Ultimate Proof

Dr. Mansfield has produced a series of photographs from Chromatograms of various foods, isolated synthetic nutrients, and the equivalent Re-Natured® supplements, which clearly show the closeness of Re-Natured® supplements to food, and the distance of isolated nutrients to food. The Chromatograms are reproduced in his book entitled, ‘The State of Our Food’.

Take a Kirlian Photograph of Ascorbic Acid and guess what, there is no energy field! Incidentally, the energy field of organically grown produce is always stronger than non-organic, as you would have perhaps suspected.

The Importance of Trials on Actual Supplements

Most research is carried out on individual ingredients usually within food, not on the supplement or its content. For example, when we read that Beta Carotene (Vitamin A) has anti tumor effects in humans, the study has invariably been conducted on people eating diets high in Beta Carotene rich FOODS- not on people taking Beta Carotene supplements. That is why Re-Natured® is truly unique- because the studies shown in the earlier pages are on the actual supplements themselves.

Linda Lazarides, Editor of the magazine ‘Society for the Promotion of Natural Therapy’ (SPNT) says, of the practice of vitamin and mineral testing “The truth is that while these nutrients are important in cancer prevention, virtually all the research looks at food, not at supplements...Study after study concludes that individuals eating the most nutrient- rich foods have the lowest rates of these diseases. Those of us who take dietary supplements reason that by increasing our intake of nutrients...we are providing ourselves with an added insurance policy against contracting diseases. However, scientifically speaking, we are in relatively uncharted territory; it is quite rare to find a study using supplements rather than food.” To reiterate then, all the research conducted on Re-Natured® supplements have been done on the actual products that are available to the public.

Not Guilty...but it cost \$3,000,000

In the early 1990's, there was a court case with more bearing and significance on the nutritional industry than almost any other. The case involved a person who was selling a predominantly USP/BP product as Re-Natured®. It became necessary for the Re-Natured® company to defend their name, lest people associated them with these poor quality, ineffective counterfeits.

During the court case that ensued, the judge required the Re-Natured® manufacturing company to prove their supplements were fully naturally bonded at the molecular level, and therefore different to and better than USP/BP nutrients.

Five Independent and internationally recognized FDA scientists were assigned to examine the molecular structure of the Re-Natured® supplements. These scientists were required to analyze the results and submit their findings to the judge. To determine the differences, leading edge technologies from NASA were used including nuclear magnetic resonance.

The Verdict

On February 8th, 1993, this \$3 million lawsuit came to an end when the California district judge made his ruling based on all evidence presented him during the case. He stated that:

- 1) "The Re-Natured® nutrients have undergone a physico-chemical change and are not simply a mixture."
- 2) "Re-Natured® material is manufactured under a proprietary process." He also ruled that:
- 3) "Re-Natured® nutrients are better absorbed, retained, and utilized than the USP/BP comparable nutrient."
- 4) "Re-Natured® vitamins are different than both USP/BP vitamins, and a mixture of USP/BP vitamins and food matrix." ...meaning that Re-Natured® nutrients are completely different from other supplements that simply mix vitamins with food co-factors.

Summary of University Studies

Studies have been proven that Re-Natured® nutrients are better absorbed, retained and utilized than any USP or chelated nutrient. There have been over 50 studies performed on Re-Natured® nutrients, many of which have been peer reviewed and published in reputable journals. Here is a summary of the findings:

USP	Vs.	Re-Natured® nutrients
Vitamin A		1.54 times more absorbed into blood
Vitamin B-1, Thiamin		1.38 times more absorbed into blood
Vitamin B-2, Riboflavin		1.92 times more retained in the liver
Vitamin B-3, Niacinamide		3.94 times more absorbed into blood
Vitamin B-6		2.54 times more absorbed into blood
Vitamin B-9, Folate		2.13 times more retained in the liver
Vitamin B-12		2.56 times more absorbed into blood
Vitamin C		*1.74 times more absorbed into red blood cells *3.2 to 15.6 times the antioxidant effect
Vitamin E		2.60 times more absorbed into blood Up to 7.02 times more retained by the body
Calcium		8.79 times more absorbed into blood
Chromium		*3.56 times more effective reducing fasting glucose * Up to 25 times more bioavailable.
Copper		1.85 times more retained in the liver
Iron		1.77 times more absorbed into blood
Magnesium		2.20 times more absorbed into the blood
Manganese		1.63 times more retained in the liver
Molybdenum		16.49 times more absorbed into blood
Selenium		17.60 times greater antioxidant effect
Zinc		6.46 times more absorbed into blood
Vitamin 'H' Biotin		Over 100 times the biotin activity