

VITAMIN NEWS

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VITAMIN E COMPLEX

The vitamin E complex is now known to embrace the tocopherol group, the xanthine group, the phospholipid group, the lipositols, and the sex hormone precursors.

The tocopherols were the first to be recognized and, as usual, have stolen the show, just as thiamine did in the case of the B complex. The tocopherols appear to act purely as anti-oxidants, and to be the protective agent for the more complex parts of the vitamin E assemblage. As such, it conserves and extends the effect of any one of the other members of the vitamin complex, and therefore its wide scope of action is explainable.

Two books on the subject of vitamin E deserve a place in the library of every physician interested in the effects of malnutrition. One is the Annals of the New York Academy of Sciences, Vol. 52, Art. 2, Pages 63-428. It contains contributions from over one hundred authorities, and discusses the role of vitamin E deficiency in causing the following diseases:

<i>Acute & Subacute Vascular Obstructions</i>	<i>Myocardial Degeneration</i>
<i>Angina Pectoris</i>	<i>Peyronie's Disease</i>
<i>Diabetes Mellitus</i>	<i>Rheumatic Diseases</i>
<i>Dupuytren's Contracture</i>	<i>Stasis Dermatitis</i>
<i>Fibrositis</i>	<i>Stasis Ulcer</i>
<i>Leg Ulcers</i>	<i>Sydenham's Chorea</i>
<i>Multiple Sclerosis</i>	<i>Urethral Stricture</i>

It also contains the report of Dr. Gullickson of the the Minnesota Agricultural College on his feeding test on 28 cattle where 13 dropped dead from the effects of a one year's deprivation of vitamin E complex.

The other book is 'Alpha Tocopherol in Cardiovascular Disease' by W. E. and E. V. Shute and six other contributors. (Shute Foundation for Medical Research, London, Ont., Canada, 1952.) It lists among others, the following diseases as amenable to tocopherol therapy:

<i>Acute Glomerulonephritis</i>	<i>Leukoplakia</i>
<i>Arteriosclerosis</i>	<i>Peripheral Thrombosis</i>
<i>Coronary Occlusion</i>	<i>Phlebitis</i>
<i>Coronary Thrombosis</i>	<i>Pruritus</i>
<i>Diabetic Ulcers</i>	<i>Purpura</i>
<i>Exfoliative Dermatitis</i>	<i>Thromboangiitis Obliterans</i>
<i>Indolent Ulcer</i>	<i>Thrombocytopaenia</i>
	<i>Thrombophlebitis</i>

In this book Dr. E. V. Shute says (page 188): 'Many people have advanced the proposition that a natural vitamin is superior to a synthetic. The evidence adduced for this is very tenuous and unsatisfactory and we are not convinced of it.'

Dr. Shute makes a very common mistake in assuming that one fraction of a natural complex is the vitamin itself. If that fraction only is under consideration, it is

possible for the synthetic to be equivalent to the natural if the natural could be completely purified, and provided that the molecular structure of the synthetic were identical to the natural, isomerically speaking, and were not contaminated with identical but isomerically unlike and biologically inactive (and often not only inactive but biologically toxic) molecules. (See Lee Foundation Report No. 6 for elucidation on this.) (It is known that only laevo-pantothenic acid is useful biologically, the dextro form is toxic, for example. Synthetic pantothenic is normally half of each form.)

We admit the evidence is 'tenuous' but Nature made it that way. It is up to us to be 'tenuous' enough to follow the facts.

The other reason for natural to be superior to synthetic is the presence of essential synergists in natural crude extracts. Dr. Shute needs unnaturally high dosages of alpha-tocopherol because he lacks these partners, he depends on the antioxidant effect of the tocopherol to preserve the real vitamin factors present in the patient's tissues rather than to depend on administering more of the sadly deficient complex in toto.

Dr. Shute's method is again to use pharmacologically high doses of one fraction of a complex, rather than to use a complete complex. He is not to be blamed -- he is reporting clinical results.

He is treating angina pectoris, for instance, with tocopherol and getting results that actually are due to the protective action of the tocopherol on the tissue reserves of the vitamin E₂. We prefer to supply the E₂ itself (of natural source) where indicated, for it is as specific in its effect for this purpose as nitroglycerine.

Dr. W. E. Shute reports frequent reversal of effect, the patient is made worse if overdosed, and the right effective dose may vary for each patient (page 103). It is obvious that if the alpha tocopherol is the protective agent for a real factor that is available to each patient in varying amounts, depending on his own dietary vagaries, the protective agent must be given in an adjusted dose to match the real factor. We have discussed this reversal of action where missing synergists were involved before in these pages. It is common effect with synthetic 'vitamins' and almost never seen in natural complexes.

In coronary thrombosis, the G complex is far more important than the tocopherol, the effect is immediate, almost as spectacular as the E₂ in the angina syndrome. Since the G complex, the E₂ and the tocopherols are all found in wheat germ, the part of the wheat discarded in white flour making, it is reasonable that all may be required by the cardiac patient who owes his predicament to his attempt to live on white flour.

The effect of the G complex is to promote better coronary circulation; in fact, vasodilation in general, cooperating with the vitamin fraction E₂ in this effect, and opposing the action of thiamin which tends to aggravate the coronary patient by its vasoconstrictive effect.

And where the general effect of the E complex is desired, we refer to the reports of clinical use in 'The Vitamins in Medicine' by Bicknell and Prescott (Grune & Stratton, 1953). They are emphatic in expressing their preference for natural forms of vitamin E as a complete complex, even saying that the entire wheat germ is preferable, so as to include the whole missing link of the B and G, as well as the E and A complexes removed from our cereal foods. (These authors fail, however, to recognize the fact that commercial wheat germ has lost its E potency by oxidation, its oils go rancid in a few days after milling and the only vitamin values are the B complex remaining.

Bicknell and Prescott condemn high dosages of tocopherols because of their tendency to cause bone and tooth decalcification. We also can report a case where a patient lost all his otherwise sound teeth within a month after an intramuscular shot of alpha-tocopherol, given as a remedy for arthritis. His dentist reported that his teeth were so decalcified that they had lost 90% of their strength, the tooth crowns could be broken off by thumb pressure.

There is only ONE natural way to get Natural vitamin E. Fresh butter contains 1/10 as much vitamin E as wheat germ oil, costing ten times as much, and whole wheat bread made from flour ground from the wheat at the time the bread is baked. Commercial 'whole wheat' flour is devoid of vitamin E, the oil content is rancid, and will destroy tocopherols on contact. 'Wholeness' here can only be true for fresh made flour. The same is true for any other processed cereal food. White flour is less toxic than stale whole wheat flour, as it has lost its oil.

Dr. Shute makes the interesting point that the human body stores up vitamin E to the extent of a three years' supply in the fatty tissues, and that if we reduce by fasting we release a lot of this vitamin for use in the other tissues. (We are told, too, by toxicologists that we can accumulate DDT in fat reserves to the extent that we can be poisoned by a fast, or in case of illness where weight loss can be rapid. The DDT is one of those insidious poisons that waits to 'kick us when we are down'.)

A rat has a life span of less than three years, and it is known that a rat can receive enough vitamin E from his mother to last him all his life. That does not mean that WE can live all our life without it.

The chromosomes disintegrate and liquefy when the protective vitamin E has disappeared. ('The Vitamins' by the A.M.A., 1935, Page 585).

That is why ulcers fail to heal, and any overworked organ cannot repair itself in case of E deficiency. The chromosomes must be intact for tissue growth or repair. They supply the blueprints for the job. This function of vitamin E complex was described in Vitamin News back in 1936 with reference to 'petroleum dermatitis' where the hands of screw-machine operators and others who are excessively exposed to oils contract a skin condition that refuses to heal. The cause as then stated was loss of vitamin E (and A) from the skin cells, blocking

repair. The internal ingestion of our E complex tablets often healed up these victims inside of a few days. Surgeons, dentists and housewives who wash their hands frequently or have them in contact with detergents too much have a similar trouble, and a similar cause. ('The Vitamins', A.M.A., 1935, P. 594).

Dr. Shute reports an opposing effect between tocopherol and estrogens. That is because the estrogens promote the release from the chromosome of the 'blueprint' factors, and the tocopherols protect the chromosome from agents that tend to break it down, or release its components. The tocopherols act favorably in peptic ulcer, and estrogens are also useful in treating such ulcers.

How does it happen that tocopherol and estrogen oppose each other in one case and in another act parallel? No doubt the reason for the tocopherol acting to assist estrogen in peptic ulcer is that the 'blueprint' factors, once released, are enabled to better resist enzymatic digestion in the stomach by the added protection of the tocopherol, and thereby speed up the healing rate. The adverse effects of estrogen that normally are observed, are the effects of the toxic residues of enzymatically split 'blueprint materials', the histamine, necrosin and pyrexin known to follow local tissue damage, and which are systemically released in case of too much estrogen and too little tocopherol. (The placental production of estrogen is for the purpose of making available to the growing embryo ample supplies of 'blueprint' material, and without protective vitamin E the toxic residues can create eclamptic seizures by chain reaction effects, once the blood levels rise to critical degrees.) The normal effect of estrogen, otherwise, is to make available 'blueprint material' for the fabrication of the chromosomes of the germ cells in the gonad.

Dr. Shute's success in treating indolent ulcers with tocopherol ointment is understandable in view of this theory. The long-known value of poultices of bruised plant tissues to such wounds is also understandable, for green leaves are one of our best sources of the vitamin E complex. The healing effect of chlorophyll may be due to tocopherol or other synergist factors, for it is usually impossible to purify such natural materials completely.

The presence in the natural vitamin E complex of the estrogen precursor (as reported by Levin et al) appears to be unknown to the Shute group, for Dr. E. V. Shute on page 187 discusses wheat germ oil as if its only value were in its tocopherol content. The other known synergists of the E complex are no less important, the xanthine (which can spare up to 50% of the tocopherol requirement) (Jol. Nutrition, 34:571-79, 1947), the lipositol, which appear to be important in the cholesterol-metabolizing effect of vitamin E (as stressed by the Shutes on pages 131-157), the sex hormone precursors, and the phospholipid group (vitamin E₂, the nitroglycerine-like factor, and vitamin F₂, the 'blueprint' protector that restores appetite to children and adults who fail to assimilate their blood reserves of fats and proteins), and vitamin F₁, the active form of unsaturated fatty acid factor described in the Annual Review of Biochemistry, 1949, where it was hypothesized as a cancer preventive, and which restores calcium to the tissue fluids so fast that a phonocardiogram shows improved heart action within five minutes where the second sound has been suppressed by reason of such deficiency (see Vitamin News, page 170). (This vitamin was first discovered in wheat germ oil by Burr in 1932.)

This makes six separate complexes within the E complex, each of which is of a multiple nature, the members being still un-numbered and new relatives popping up periodically.

The Shute group have accomplished a wonderful job in demonstrating the extent of our refined cereal induced diseases, and we must not be too critical of their failure to accept the facts that have been so successfully ignored by the medical profession in general.

According to Thorpe's Dictionary of Chemistry, xanthine is converted into alloxan by the action of flour bleach chemicals, or chlorine (as in drinking water). Alloxan is a specific poison for the islets of Langerhans (causing diabetes) and Dr. Ugo Butturini has contributed a chapter on diabetes in the Shute book where he goes into much detail on the damage that can be done by alloxan, and he speculates on how it may be produced in the human body, but apparently he was not aware of this source. Since diabetes is known to be one of our most rapidly increasing diseases, and tends to become hereditary, we need to know the real cause as soon as possible.

Dr. E. V. Shute (page XV) notes that coronary disease was first recognized at autopsy in 1896 and now kills half the men dying over 50 years of age. Since the tocopherols are destroyed by flour bleaches (or any other oxidizing agent including chlorine in drinking water), it may be more than a coincidence that it appeared just as flour bleach was introduced, and its increase parallels the extent of the use of such poison. It is interesting to recall the efforts of Dr. Harvey W. Wiley, the first head of the Federal Food and Drug Administration to stop the use of bleach poison, and that the U. S. Supreme Court concurred in a decision in 1918 that the use of any such poison in whatever small amount WAS illegal. (But never enforced.) (Free booklet available on request of Wiley's comment on this situation.)

Here is a horrible price we are paying for a lack of integrity on the part of our law enforcement personnel. No wonder there are political pressures to block the acceptance of the hypothesis that vitamin E is needed in the metabolism of the human machine. No wonder that the Shutes were 'unable to get their work published in any medical journal'.

How long will it take for people in general -- and the Medical Profession to realize that:

1. The human body CANNOT make SOMETHING out of NOTHING.
2. The use of REFINED and demineralized foods cause our body to DISINTEGRATE. First, we lose our TEETH, then may follow the common forms of Gastric Ulcer, Arthritis and Heart Disease. (Plus those listed previously.)
3. ANY poison added to food or drink is too much -- we are being submitted to illegal mass experimentation when this rule is violated.

Edited by Royal Lee
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SLANTED SCIENCE

It is quite interesting to watch the planted propaganda in our journals of 'science' that diverts public attention from the facts of life.

Recently (in 'Agricultural and Food Chemistry', Sept. 15, 1954, page 978) there appeared a report that purported to show that pasteurization had no effects on the nutritive properties of milk. If this report is right, Dr. F. M. Pottenger, Jr., was wrong when he observed that cats lost their teeth, became decalcified in bone structures, incurred liver disease, heart disease, constipation and stomach ulcers when fed pasteurized milk.

How did Bixby, Bosch, Elvehjem and Swanson succeed in getting opposite results?

Simply by rushing through short term experiments on short-lived animals like rats. It takes time for vitamin deficiency to do its dirty work. A rat can live all its life on the vitamin E it received from its mother. If the intake is cut to half, it no doubt could run several generations before it showed definite reactions. Chinchillas had to accumulate fluorine for several generations before they began to die spontaneously from the lethal accumulations. (1)

Are such gimmicked experiments common? Yes, quite. Aluminum was declared quite safe as a contaminant in food by careful tests in which the antidote was added to the ration along with the aluminum (2).

In another case, vitamin E was declared ineffective where iron chloride was added to the ration to destroy the E.

And oleo has often been tested to show that it was a perfect food, but milk solids were used to afford the phospholipids otherwise essential and only available from honest natural fats, milk solids or butter. (Even purified casein carries enough of natural lipoprotein to avoid the deficiency reactions due to use of refined or synthetic hydrogenated counterfeit imitation fat.)

Elvehjem is known as a scientific Judas, the goat leading the sheep to slaughter. Once he declared no trace element needed to be in an organic form to be useful in nutrition. (3) Only a few months later it was found that Cobalt could not be assimilated by the human unless in the organic form of vitamin B₁₂, and that we cannot live without it. Why believe him now?

There are ample clinical proofs of the evils of pasteurization. Rat tests are pure propaganda.

- (1) 'Chinchillas, Test Animals -- or You and Your Grandchildren?' W. R. Cox - Lee Foundation - \$3.50
- (2) Lee Foundation Report No. 5 - 5¢ each
- (3) 'A Critical Discussion of Trace Elements and Biodynamic Agriculture' (reprint free from Vitamin Products Company.)
- (4) 'A Practical Way to Avoid Malnutrition' (reprint free from Vitamin Products Company)

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