

# The Fallacy of "High Potency" in Vitamin Dosage

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The use of nutritional factors involves the question of correct dosage. The biggest mistake made in the art of therapeutics or nutrition is in assuming that "if a little is good, more is better."

We use vitamins as food. We all know that if we get good results from ingesting the normal daily requirement of carbohydrates, fats and proteins, we would be morons to assume we would get twice as good effects from twice the normal schedules of bread, butter, meat, milk and potatoes.

But the sales managers of vitamin products who know how to hoodwink the public, in prescribing the kind of label that will sell the product, make the mistake of loading up the formula with ten times the daily requirement of the cheap synthetic kind of vitamins for the purpose of making the prospective buyer think he is getting a "high potency" product that will stimulate his tired muscles in a hurry. In the same formula, you will find LESS than the daily requirement of the more costly components, and none of such new factors (as B<sub>4</sub> or B<sub>12</sub>) that have not as yet been "accepted" as necessary to human nutrition. The gullible buyer is supposed to overlook this.

The physician who knows his beans (and vitamins) realizes that all foods contribute their definite proportions to the metabolic reactions that we call life, and any unbalance is unwise. The only possible argument for higher intakes of any food factor would be to replenish reserve stores (other than to get a drug effect—like using table salt as an emetic). But again, few vitamins are subject to storage, the water soluble factors especially passing out the kidneys at a rate proportional to their levels in the blood stream. There is ample proof that *unbalances* in vitamin intake are worse than *deficiency*. (1) (2)

But there is another principle that is little known, and highly important to this question of dosage. It is the fact that many vitamins may cause, in excess quantities, the SAME SYMPTOMS as are caused by their deficiency.

Vitamin B<sub>1</sub> in small doses can cure herpes zoster, large doses can CAUSE herpes zoster. (3a) (4)

A deficiency of vitamin B<sub>1</sub> causes symptoms similar to hyperthyroidism. An excess of the same vitamin causes similar symptoms. (3B) (5)

Dr. Mills said, "The symptoms (of B<sub>1</sub> toxicity) resemble closely those of hyperthyroidism and at times become quite acute. Since thiamin has been held to be entirely non-toxic, and since it has attained such wide usage in both lay and medical hands, it seems that this overdosage toxicity should receive careful and immediate attention."

(Any attention given Dr. Mills' discovery has apparently been aimed at suppressing it. The literature is very silent on the subject.) There is an increase in the pyruvic acid content of B deficient rats according to Laszt, a German investigator. (14)

There is an increase in pyruvic acid in the blood of human patients after prolonged treatment with thiamin, according to the Swedish investigators. (15)

Pyruvic acid being a fatigue poison, it is evident that if one tries to ward off fatigue by taking more and more thiamin, he is likely to be badly deceived. Other than

reversing in its effect, when given in more than the normal requirement, thiamin has other disturbing toxic effects. It can cause gall stones, according to one report. (9)

It can cause fatty degeneration of the liver, and choline or lipocain ordinarily effective in preventing such changes, is ineffective in this case. (16) (17) Deaths in human patients from liver disease aggravated by thiamin treatment have been confidently reported to us by various physicians, who discovered the effect too late. The fatal dose of thiamin in the human patient is about one-tenth the milligrams-per-kilo lethal dose for test animals. (18)

In some test animals, Dr. Barnett Sure reports that only TWICE the daily requirement of thiamin for lactating mothers results in STERILITY if continued over two generations. Dr. N. Philip Norman should have had this fact before him when he wrote his article "UNFITTING THE UNBORN." (10) If you want to castrate your children or grandchildren, here is a very clever way of accomplishing it. (11)

Because of its cheapness, vitamin D is always a favored one with which to load a proprietary food formula to gull the buyer into thinking it is highly "potent." Our most authoritative work on the subject, "The Vitamins in Medicine" (3D) advises that "Vitamin D is an extremely powerful drug." Poisoning has been widely reported, even being fatal, so that the use of large doses of vitamin D are only justified if the patient is under constant supervision." The authors, Bicknell and Prescott go on to say that the synthetic forms of vitamin D are more poisonous than natural forms, and that fish liver sources only should be used in case of high "potency" doses. The danger of the synthetic vitamin D is exemplified by the report in the Journal of the A.M.A. by Bauer & Freyburg (12) who tell how children have been fatally poisoned by the synthetic form when given in no greater amounts than recommended by the maker for the prevention of rickets.

Again, the natural vitamin pattern as found in fish liver oils (vitamins A, D, and F) have been found the only effective proportion in the use of cod liver oil as an ointment to hasten the healing of surgical or traumatic wounds. Any meddling with these proportions with the objective of improving the "potency" has resulted in the loss of effectiveness, according to the surgeons who depend on this product and observe its performance. (13) The surgeon who is watching the healing of an arm stump left after the hand has been shredded in a cotton gin is a little better able to report results with accuracy than the pediatrician who wonders why little Ann has hemorrhages from the kidneys after a few months on viosterol.

Vitamin D in overdosage also reverses the effect of mild dosage. In deficiency there is a negative calcium balance, in excess there is also a negative calcium balance. Only the nutritional dosage promotes assimilation of calcium.

Vitamin E is involved too, in calcium assimilation and retention. In a deficiency of E there is a loss of bone calcium. In an excess of vitamin E there is ALSO a loss of bone calcium, (3C) according to tests on rats, who develop soft skulls on an E deficient diet, and again suffer bone decalcification on an excess of pure tocopherols.

Vitamin K is another nutritional factor having a reverse action in overdosage. A reversal of prothrombin time was observed both in test animals and human patients. (6)

The writer reported this principle of reversal of vitamin action by overdosage first in *Vitamin News*, page 131, March 1940, and the explanation suggested that it was due to the exhaustion of an essential synergist. If you open the damper of a stove that has a limited amount of fuel, and thereby afford a greater supply of oxygen, the first effect is an increase of heat. Too great an oxygen supply serves only to waste the fuel, and hasten the time when the stove is again cold, but now from a lack of the solid component of the combustion reaction instead of a lack of air. Suppose there were an arrangement by which a small but continuous supply of fuel were being fed into the fire pot. Too little air would mean too cold a stove. Too much air—ditto. The right amount of air—the correct performance. It is just that simple. The sudden death of Dr. Morgan's dogs on enriched diets is just as simple. (2) Too much air for the fuel available can soon put out the flame. We believe that the major influence that has kept these simple principles from universal acceptance is the propaganda of makers of "enriched" foods and the synthetic vitamin promoters, whose business success depends upon making imitations at a cut price that drives the good products off the market. The buyer of a cheap imitation that pays the maker a 20% profit besides a 30% advertising budget cannot see the real value of a natural complex containing only the daily requirement that needs no advertising campaign to sell it, and that only affords the maker a 5 to 10 percent profit. At least, he cannot see the difference until he makes the test. THAT is the ace in the hole that protects the maker of the scientifically designed product, made to do a job instead of being made to fit a label designed as bait for the unwary.

Did you ever see an advertising campaign addressed to selling wheat germ or butter? Why not? It sells WITHOUT advertising. The makers of synthetic substitutes are the ones who spend millions advertising—Glucose, corn syrup, oleo, hydrogenated fats, soft drinks, white flour—HAVE to advertise and still there is no shortage like there

is of honest foodstuffs. Butter and beefsteak still command high prices, and deserve to. In a recent issue of a miller's journal there appeared an article entitled, "Deaf Smith County Debunked." (7) It shows to what lengths the millers will go to misrepresent the facts. The fact is when the State of Texas took heed of the rumors that no tooth decay existed in Deaf Smith County except what was imported, and sent a committee of dentists to find out, the dentists looked at SEVENTY-THREE native born sons and daughters of Deaf Smith County before they found their FIRST CAVITY IN A TOOTH.

The article quotes the words of Dr. Leonard A. Maynard of Cornell to the effect that analyses show the level of minerals in the milk is in no way affected by the nature of the feed of the cow. Therefore, the beef and milk from Deaf Smith County is no better than if from any other place. What is wrong with that argument? Simply, that the alterations in milk or meat that result from deficiency are often so insidious and gradual that there is no way but a FEEDING TEST to ascertain the deficiency. It is the most incredible fact that self-appointed "experts" have constantly been available to swear away the national health by such statements. As a good example you might look into the shortcomings of pasteurized milk and bleached flour, in both of which the loss of the enzyme "phosphatase" (phytase), has rendered them incompetent to accomplish their normal function of facilitating the assimilation of calcium and phosphorus. (8) (19) Up to now all official nutritional experts and biochemists have sworn that they were not adversely affected by this processing wholly on a theoretical basis and ignoring feeding tests on animals or clinical experience in human subjects. The first oleo made seventy years ago was pronounced by "experts" to be the equivalent of butter, before vitamins were ever heard of.

We have prepared more detailed information on this partnership between food racketeers and our government and most universities. Write for booklets—"How Our Government Subsidizes Malnutrition and Disease" and "How and Why Synthetic Poisons are being sold as Imitations of Natural Foods and Drugs."

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Reprint 25B  
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