When we talk about vitamins, we need to specify the type of vitamins we are talking about. In our modern world, there are synthetic vitamins, which are generally presented to us as equivalent to vitamins in food, supposedly having an identical chemical structure and therefore an identical action in the body. And then there are the natural vitamins, present in our food.
From my research on vitamins in recent years, I am convinced that these synthetic vitamins are not the same as the natural ones, that they do not have the same actions in the body and that they are even harmful.

This is what I will demonstrate in this article.

Before entering into scientific studies on vitamins, I would like to first encourage you to use common sense, which unfortunately is being lost more and more in our society, where we have been conditioned since our childhood, to listen to authorities and dogmas and to accept them without a critical mind, rather than listening to our instincts and our common sense.
If you use common sense, pure and simple logic, does it make sense to consider a product made in a laboratory from refined and processed products, as equal to a food that comes from an animal or a plant that has grown in the earth, in the sun?
Does it make sense to consider that a vitamin extracted from a plant or

an animal and then isolated from its original matrix has the same properties, on its own, as a vitamin in its original, living matrix, binded to other vitamins, minerals, amino acids and enzymes?
In nature, would it ever be possible to come into contact with an isolated vitamin?
Considering that our body has evolved with nature for millions of years, does it make sense to put in artificial elements that never existed until 100 years ago?
And this question also applies to isolated minerals, isolated amino acids, isolated enzymes.

Do you think it is better for your health to get your vitamins from this:

Or from this?

If you've read Weston Price's book, you know that our ancestors were much healthier than us, without knowing about the existence of vitamins and minerals. A natural diet and a natural lifestyle guaranteed them an adequate intake of vitamins and minerals and excellent health.

Yes but nowadays the soils are devoid of nutrients, therefore our food is devoid of nutrients too, so our diet cannot have enough nutrients, right? Well, yes, it's true, but let's ask this question: why is this the case? How did we get there ? Well, because modern agricultural techniques have impoverished the soils: by fertilizing the soils with NPK, an artificial fertilizer, we have emptied the soils of their trace elements.
Spraying crops with herbicides and pesticides has killed life in the soil: we have killed the bacteria, fungi and insects that live in symbiosis with plants and allow them to absorb nutrients from the soil. We are now swallowing products devoid of nutrients, because man feels like he needs to change nature. This is the result of what is artificial. This is the result when man thinks he knows better than nature. And after this observation, do you still trust what is artificial, do you still feel like swalloing artificial vitamins, made in a laboratory is the answer? When are we going to realize that the answer is NOT to move further away from nature?

I believe that humanity will only get better when we will understand that nature is perfect and that we have to learn how to live with nature again instead of constantly wanting to change it.
By transforming nature, man makes himself sick. Just look at the current state of our planet and the state of our health.
Even though our modern foods are too low in nutrients, I will detail in this article why supplementing with synthetic vitamins and isolated

this article Why supplementing with synthetic vitamins and isolated minerals is not the solution.
In the conclusion I will give you advice to achieve good vitamin levels naturally, without synthetic supplements.

1. Synthetic vitamins are NOT identical to natural vitamins

Synthetic vitamins are made in a lab

Vitamins are manufactured in laboratories, from organic materials transformed, refined and extracted with toxic chemical solvents (hexane, benzene, ethyl acetate, acetone, etc.). They are made from petroleum derivatives, from coal tar, by the fermentation of laboratory yeasts on refined sugars from poor quality raw materials.
Let's see the differences between synthetic vitamins and natural vitamins.

Synthetic vitamin A: It is found under the names Retinyl palmitate or Retinyl acetate, it is made by combining fish oil or palm oil with beta-ionone (synthesized with acetone and other chemicals).
It is also found in the form of isolated beta-carotene, which the body must transform into the active form of vitamin A: retinol. It can only be converted in the presence of fat.

Natural vitamin A: it is found in 2 forms:
– Pro-vitamin A in orange, yellow, red, green plants, which the body must transform into the active form of retinol.
– Retinol: It is mainly found in the liver, egg yolks, butter and in fatty fish. High levels of vitamin A retinol are not toxic unlike synthetic vitamin A.

Synthetic Vitamin B1: Found under the names Thiamine mononitrate or Thiamine hydrochloride, it is made from coal tar, ammonia, acetone and hydrochloric acid. It is much less absorbable because it is not bound to phosphate. Its structure is crystalline, unlike vitamins of plant origin. Many synthetic vitamins are crystalline. Crystals in our bloodstream cause damage by accumulating in tissues.

Natural vitamin B1: Thiamine is a water-soluble vitamin made by plants

and bound to phosphate. Digestion releases thiamine with the help of specialized enzymes that target phosphate. It is found in large quantities in the bran of cereals and in nutritional yeast, but also in pork and fish.

Synthetic Vitamin B2: Synthetic riboflavin is made with acetic acid and nitrogen or by using GMO bacteria for fermentation. It has been shown to be less absorbable, then quickly cleared from the bloodstream and excreted in the urine like a toxin.

Natural Vitamin B2: Riboflavin is easily absorbed, remains in the bloodstream for long periods of time, and is readily used by the body in many important enzymes. It is found in large quantities in the bran of grains and in nutritional yeast.

Synthetic Vitamin B3: Nicotinic acid is made from coal tar, ammonia, acids, 3-cyanopyridine and formaldehyde (toxic and carcinogenic). It is less absorbable and has side effects.

Natural Vitamin B3: Niacinamide or nicotinamide is the vitamin B3 found in foods, commonly called niacin. It is found in large quantities in the bran of grains and in nutritional yeast. Tryptophan, an amino acid, is a precursor to niacin so all animal products provide niacin through tryptophan.

Synthetic Vitamin B5: The manufacture of synthetic B5 (D-Pantothenic or calcium pantothenate or dexpanthenol) involves isobutyraldehyde and formaldehyde to form a calcium or sodium salt. Panthenol, an alcohol derivative, is sometimes used as it is more stable and lasts longer on store shelves.

Natural Vitamin B5: Pantothenic acid is the natural version of this B vitamin. It is found in large quantities in the bran of grains, in nutritional yeast, in liver.

Synthetic Vitamin B6: Pyridoxine hydrochloridecomes from petroleum ester, hydrochloric acid and formaldehyde. It is not easily absorbed or converted and has been shown to inhibit the action of natural vitamin B6 in the body.

Natural Vitamin B6: Like B1, pyridoxine is bound with phosphate in plants to make pyridoxal-phosphate. This is the biologically active form. Any other form of B6 has to be converted into this phosphate

combination before our body can use it. It is found in large quantities in liver, fish, grains bran and nutritional yeast.

Synthetic Vitamin B7: Found as D-biotin. Synthetic vitamin B8 is produced from fumaric acid which is produced synthetically.

Natural Vitamin B7: Biotin is involved in cell growth, fat production, and metabolism. It is found in large quantities in animal products and particularly in liver and eggs.

Synthetic Vitamin B9: Folic acid doesn't exist in natural foods, it is crystalline and it is not easily absorbed. It must be converted to its active form in order to be absorbed. It comes from petroleum derivatives, acids and acetylene.

Natural Vitamin B9: This B vitamin exists in foods as folate and is very important in the creation and repair of DNA, hence the vital importance of this vitamin before and during pregnancy. It is found in green leafy vegetables and in liver.
Once inside the body, all forms of this vitamin – dietary folate and folic acid – are converted into the more metabolically active folate called 5-methyltetrahydrofolate or 5-MTHF. The intestines and the liver play a key role in activating this process.

Synthetic Vitamin B12: Made from the mineral cobalt and cyanide, which are fermented to make cyanocobalamin. 1 in 5 people have a genetic mutation that prevents them from properly converting this form to active B12. Absorption of large amounts of synthetic B12 can lead to cyanide poisoning.
Another synthetic form is hydroxocobalamin, which also needs to be processed by the body to be absorbable.

Natural Vitamin B12: Cobalamin B12 is only created by microorganisms like bacteria in our gut. Methylcobalamin is the type of B12 found in the body. It is produced by certain bacteria and can be made in a laboratory. It is found in animal products.

Synthetic Choline: Choline chloride or choline bitartrate is made using ethylene, ammonia, and hydrochloric acid or tartaric acid. It is not bound to phosphate.

Natural Choline: Choline is often grouped with B vitamins. It is

combined with phosphate in nature and is important in cell membranes and keeping fat in check. It is found in egg yolks, liver, fish and meats, seeds.

Synthetic Vitamin C: Ascorbic acid is a vitamin made from the fermentation of genetically modified corn sugar, or wheat sugar, hydrogenated and treated with acetone. It does not include the flavonoids and other co-factors that give it its properties.

Natural Vitamin C: This vitamin is readily available in fresh fruits and vegetables, but also in raw meat. In nature, it is combined with flavonoids, phytonutrients, and minerals that help in its absorption and use.

Synthetic Vitamin D: Several synthetic vitamin D compounds have been made, the most common being calcipotriol, doxercalciferol, and calcipotriene.
Cholecalciferol, the natural form of D3 can be made in laboratories: to mimic the natural production we find in our skin, scientists irradiate animal fat to stimulate the synthesis of vitamin D3. They typically use lanolin, the waxy secretions from sheep skin that keep wool dry. This form is the most natural, however it does not come with all of the D3 co-factors.

Natural Vitamin D: Technically, this is not always considered a vitamin since we make it ourselves. Fungi, yeast and lichen produce vitamin D when exposed to the sun. Humans too. Vitamin D3 (cholecalciferol) is the most effective, the same one that comes from our skin. Fungi and yeast give D2 (ergocalciferol).

Synthetic Vitamin E: It is made from a single compound of Vitamin E instead of 8. It is often found as dl-alpha tocopherol. It is created from refined oils, trimethylhydroquinone and isophytol. It is not as easily absorbed, it does not stay in tissue for as long, and it is quickly dispelled like a toxin or a foreign chemical. Synthetic vitamin E has adverse effects. It is incompletely metabolized and can even disrupt the metabolism of natural vitamin E in the liver.

Natural Vitamin E: Vitamin E is made from 8 different fat soluble compounds (Alpha, beta, gamma and delta tocopherol and alpha, beta, gamma and delta tocotrienol) and acts as an antioxidant which protects

fats from oxidation. The so-called “natural” vitamin E, d-alpha tocopherol (it can also be found under the names d-alpha tocopheryl acetate or d-alpha tocopheryl succinate), is present in many supplements. However, although this vitamin E is a natural form, it is not really natural: it comes in isolated form without the rest of the natural vitamin E complex. In nature, alpha tocopherol exists along with seven other vitamin E compounds.

The contributions in all 8 compounds must be balanced so that vitamin E fulfills all its functions:
• Vitamin E alleviates atherosclerosis, a major contributor to cardiovascular disease, by preventing LDL cholesterol from oxidizing.
• Delta tocopherol and tocotrienols induce the death of cancer cells (apoptosis).
• Tocotrienols can lower cholesterol levels and may have anti-tumor effects.
• Tocotrienols reduce angiogenesis (the growth of blood vessels that supply tumors)
The most beneficial natural vitamin E products come in the form of mixtures of the alpha, beta, gamma and delta fractions of tocopherol. The most biologically active form is found in the germ of grains and seeds and their oils. It is also found in animal fat and liver.

Synthetic Vitamin K (K3): Synthetic vitamin K, menadione, comes from coal tar derivatives and genetically modified and hydrogenated soybean oil, and uses hydrochloric acid and nickel. It is considered highly toxic and damages the immune system.

The vitamin K2 found in some supplements is the fermented K2-MK7 form. It is less effective than the K2-MK4 form found naturally in animal fat.

Natural Vitamin K: This vitamin is important for proper blood clotting and some metabolic pathways. K1 is found in green vegetables. Vitamin K2 is found in animal fat (MK4) and in fermented foods.

Synthetic vitamins are found in the form of crystals, which is not a natural form of vitamins. These crystals cause inflammation.

Isomers

An isomer is a geometric variable of a molecule: the molecular formula is

the same but the shape is different. For example, in geometry, all triangles are triangles, that is, they have 3 sides, 3 angles, but there are many different types of triangles: isosceles triangle, right triangle, equilateral triangle, etc.

Take vitamin E for example: there are 8 compounds (or chemical variations); however, there are over 100 known natural isomers. We can explain how the 8 compounds vary in their mechanisms of action, but we do not understand the differences in the way the hundreds of isomers interact with our bodies.

A synthetic vitamin can contain at most a dozen “natural” isomers … maybe only 1 to 10% of what nature provides. Worse, a synthetic vitamin will have many unnatural isomers and these isomers which are not found in nature have unknown effects on our body. Some take the place of natural isomers and block their absorption, others may be more or less effective, and others can be dangerous. And of course, many just pass through our bodies doing nothing at all.

And vitamin E is just one example. Vitamin D is much more complex, with hundreds if not thousands of isomers. When you consume synthetic vitamins, from pills, capsules, liquids, or “fortified” processed foods, you are putting chemicals into your body that are not yet fully understood.

2. Synthetic vitamins are made from chemicals

As we have seen, the problem with synthetic vitamins is not only because of their different forms which do not exist in nature, but also one of the many problems with these synthetic vitamins is because of the different toxic chemicals used to make them. Residues of these toxic chemicals are found in the synthetic vitamins sold in stores.

Typical solvents used for vitamin extraction and for the extraction of other phytochemicals include ethanol, ethyl acetate, acetone, methanol, hexane (much less used nowadays for the extraction of vitamins but widely used in the refining of vegetable oils, oils that can be found in vitamin supplements), isopropyl alcohol and 1, 2 dichloroethane, the

latter being a chlorinated hydrocarbon. Many of these solvents are carcinogens. All of them are toxic to the liver, the most harmful are the petroleum solvents. Ethyl alcohol is the least toxic and, if fully driven off, does not cause any untoward effects. Regardless, how can a supplement aid bodily function while it is intoxicating the cells with petrochemical residues, including liver cells?

We also often find in supplements titanium dioxide, GMO soy lecithin, BHT (banned in Europe but not in the USA), maltodextrin. Many vitamin supplements are made from GMOs (corn or soybeans) such as ascorbic acid, B12, B2, vitamin E.
Almost all vitamin C supplements in the US are made from GMO corn. Vitamin C found in Europe is not necessarily made from GMOs, but is made with the same fermentation process by lab yeasts on refined grains sugars.

Several B vitamins are made from coal tar.

An example is vitamin B1. Coal tar is a widely used foundational substance for this vitamin — typically a crystalline yellow coal tar (yes, this means it's from coal, a fossil fuel). Hydrochloric acid is often added to allow precipitation. Then fermentation, heating, cooling, and other steps are completed until a final synthetic vitamin is created. It's then dried and tested for purity before being shipped to distributors.

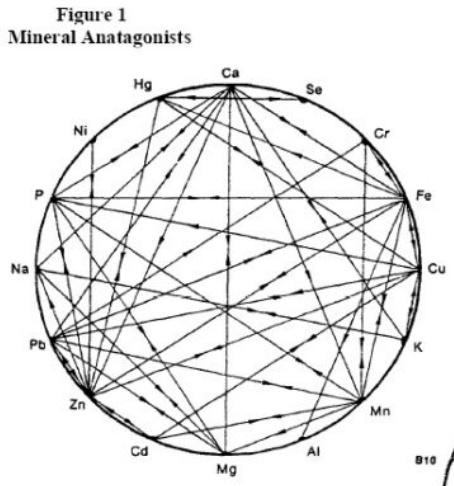
Now, to get a natural vitamin B1 supplement the process is quite different.
The food or botanical containing the desired vitamin is harvested and cleaned (let's say wheat germ). It's then placed in a vat to be mixed with water and filtered to create an extract and remove fibre. The post-filtration extract of the sourced food contains the nutrients found in the original whole food. It's then dried and ready for packaging.

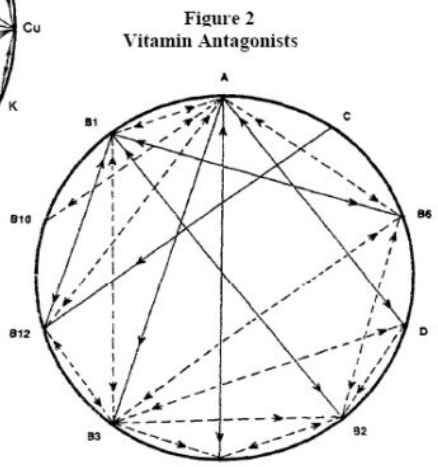
Other toxic chemicals are often added to these vitamins: artificial colors in capsules or on tablets, preservatives, lubricants, anti-caking agents or fillers.
Transparent capsules can be made from plants where chemical solvents are also used in their manufacture, or from animal gelatin, which can include tissues from sick animals (you should know that animals fed on conventional grains sprayed with glyphosate accumulate glyphosate in their tendons and skin… these tissues are used in the manufacture of capsules).

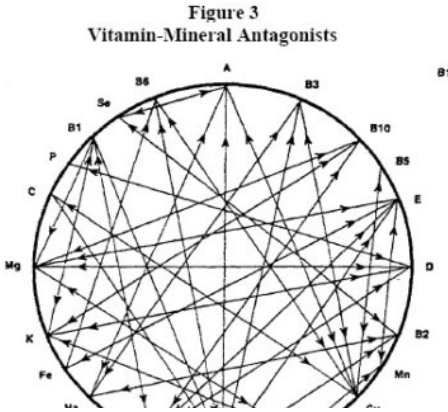
Added sugars like fructose, maltodextrin and sucrose are not only toxic refined sugars, but they are also often made from GMOs.

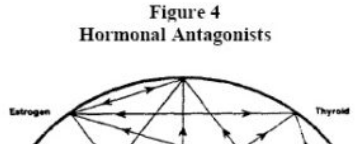
In March 2010, the Mateel Environmental Justice Foundation commissioned testing on several fish oil supplements. It was found that the supplements contained PCB, a cancer-causing chemical that was banned from use in 1979, but is still present in the environment. The group consequently sued the manufacturers of these supplements, including CVS Pharmacy, GNC, Now Health Group, Omega Protein, Pharmavite, Rite Aid, Solgar and Twin Lab. A May 2010 article in the "New York Times" reported that almost every herbal dietary supplement tested in a congressional investigation contained trace amounts of contaminants such as lead, mercury, cadmium and arsenic.

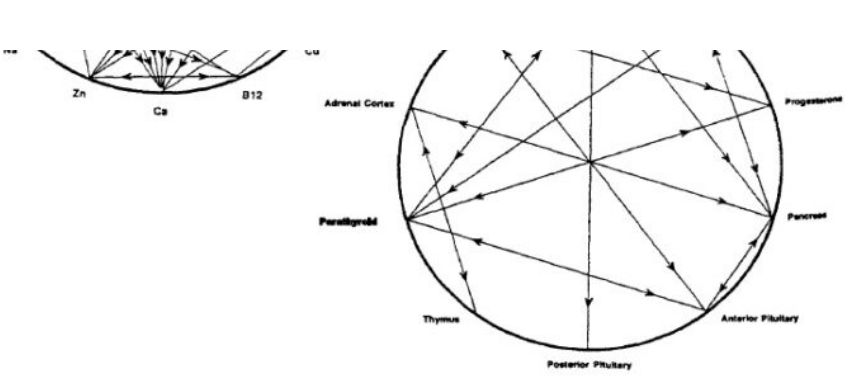
3. Vitamins work in synergy with their co-factors, they do not work in isolation!











Vitamins never work alone. Minerals neither, nor amino acids. It is not possible in nature to come across an isolated vitamin, an isolated mineral or an isolated amino acid. These nutrients work in synergy with each other. Supplementing with an isolated vitamin or an isolated mineral or an isolated amino acid will inevitably cause imbalances in their co-factors, on the long run.

Zinc and vitamin A are co-factors: they work together.
According to a study:

> **https://www.sciencedirect.com/science/article/pii/S0738081X10000520**
>
> Zinc deficiency can also impair absorption, transport, and metabolism of vitamin A because it is essential for the synthesis of the vitamin A transport proteins and as the cofactor in conversion of retinol to retinal.

We can also read in that study that the role of zinc is to metabolize vitamins, including A and C.

According to Dr. Price, neither protein, minerals nor water-soluble vitamins can be utilized by the body without vitamin A from animal sources.

All the B vitamins (+ choline) work together, in synergy:

Vitamins B1, B2, Niacin, Pantothenic Acid and B6 enable energy metabolism (the production of energy from fuels like fat and sugar). Without them, cells would not be able to produce the energy they need to operate.

Vitamin B9 (folate) plays a primary role in *methylation* (a biochemical process that keeps DNA healthy and functioning). Vitamins B2, B6, B12, and choline are necessary for this process to happen correctly. Poor

and choline are necessary for this process to happen correctly. Poor methylation has implications in many chronic diseases, including cardiovascular disease and Alzheimer's disease.

Excess B1 and B2, added to white flour, interferes with B6.

High unit dosages of vitamin B1, for instance, may cause a fatty infiltration of the liver in the absence of the natural synergist choline.

Vitamin C is a co-factor of not only zinc but also iron and calcium, as shown in the same study:
"Vitamin C : co-factor for collagen synthesis. Vitamin C also contributes to metabolism of trace metals, iron uptake and metabolism, calcium metabolism for epidermal gradients. Deficiencies in iron or vitamin C are involved in iron metabolism"

Vitamin C is not just ascorbic acid: Vitamin C includes rutin, bioflavonoids, vitamin K1, vitamin P, factor J, tyrosinase enzyme, ascorbinogen, copper. As we have seen, on top of that, it can only

function properly with its mineral co-factors.
Vitamin P is necessary for the strength of blood vessels.
Vitamin K1 is the vitamin for coagulation.
Factor J helps red blood celles transport oxygen.
Tyrosinase is an enzyme that improves the efficiency of white blood cells.
Ascorbic acid is just the outer shell of the vitamin C molecule that protects it from oxidation.
Megadoses of isolated ascorbic acid can lead to vitamin P imbalances and deficiencies.

Additionally, the same study suggests that vitamin C works synergistically with vitamin E, which also works with selenium:

"Vitamin E plays an antioxidant role by interacting with selenium-dependent glutathione oxidase to inhibit the breakdown of fatty acids in the cell membrane"

Vitamin E also works with Zinc.

Vitamin D and vitamin A are necessary for the absorption of calcium and phosphorus.

Sulfur is a co-factor of vitamin D. When the sun hits the skin, it interacts

Sulfur is a co-factor of vitamin D. When the sun hits the skin, it interacts with cholesterol sulfate. Vitamin D must be attached to this sulfate so that it can be carried in the blood. The body cannot use Vit D properly without sulfur.

Vitamin D3 is rounded out with vitamin K2, as well as the minerals zinc and magnesium, which are needed to make vitamin D perform many of its functions.

Mineral deficiencies can cause vitamin deficiencies and vice versa:

For example vitamin D is necessary for the absorption of calcium and phosphorus (the same goes for vitamin A). Copper is necessary for the activity of vitamin C, etc.

Activator X or Price Factor: discovered by Weston Price, this fat-soluble nutrient (today thought to be vitamin K2, not yet discovered in his time)

is a potent catalyst to mineral absorption.

Weston Price found that vitamins A and D dont work very well unless you get vitamin K. The one that works the best is vitamin K2-MK4.

“A real vitamin,” insisted Dr. Lee, a contemporary and friend of Dr. Price, “is a biological mechanism that can only be obtained from whole, unprocessed foods. “

Vitamins as they appear in food are never isolated chemicals. Instead, they are groups of biochemically interrelated substances that all work together – each cofactor performing a specific function – to provide a collective nutritional effect to the body.

Dr. Lee said, vitamin complexes are so biochemically complicated that only a living cell can create them. Just as a computer programmer will never recreate a human brain, chemists will never reproduce a true vitamin in a lab. Isolated vitamin parts, whether natural or synthetic, are the antithesis of the holistic principle of biology.

Vitamins in living cell are essentially part of the enzyme systems. Natural complexes are, if properly prepared, still enzymes and still linked to their enzyme activators, trace elements.
The trace elements are in organic form (vitamin B12, for example, is linked to organic cobalt). The elimination of these mineral activators

from the food or vitamin concentrate is unjustifiable. These activators are of course never present in the synthetic imitation.

American farmers found that NPK (nitrogen, phosphorus, and potassium) was all that was necessary for crops to look good. 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 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.

4. Synthetic vitamins don't work as well as natural vitamins

Isolated vitamins do not cure scurvy, pellagra, beriberi, and other illnesses caused by vitamin deficiencies. Only vitamin complexes do.

Vitamin A

Beta carotene is not vitamin A, but is a phytonutrient, some of which converts to vitamin A
compounds in the body. However, this conversion is not very efficient. Most supplements that list
vitamin A will also state, in parentheses, beta carotene. Those listing vitamin A without noting beta carotene are probably synthetic, unless some type of fish liver oil is listed somewhere on the label.

Vitamin B9

Recent studies show that the liver is limited in its ability to metabolize folic acid in oral doses greater than 260 to 280 mcg. Amounts beyond this can overwhelm the body's metabolism, according to researchers, resulting in unmetabolized folic acid.
The body is not able to convert large amounts of inactive B9 (folic acid) into active folate.

Some synthetic vitamins may convert to their active forms once in the body, but they
require additional nutrients. For example, in order for the body to utilize

synthetic folic acid
additional vitamin C, niacin and vitamin B12 are required.
The term “folic acid” specifically refers to the synthetic form of the vitamin. Chemically, it is fully oxidized, non-coenzyme, and inactive because it cannot be used in this form by the body.

For genetic reasons, some people can’t convert significant amounts of certain inactive vitamins, including inactive B9 into their active forms.

Vitamin C

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)

As we have seen, Szent-Georgi discovered that he could not cure scurvy with isolated ascorbic acid, but that he could cure it with the “impure” vitamin C found in simple foods.

The most common effect of vitamin C deficiency is “pink toothbrush.” Any good natural vitamin C will promptly stop this hemorrhagic gingivitis, but ascorbic acid (synthetic vitamin C) has failed to have the slightest effect in careful tests made by the British Army.

> **https://pubmed.ncbi.nlm.nih.gov/3414575/:**
> the citrus extract was 35% more absorbed than AA (p less than 0.001) and was more slowly absorbed than AA.Ascorbate in the citrus extract was found to be more bioavailable than AA alone in human subjects.

Vitamin D

Synthetic vitamin D is not as effective as the natural form and is much more dangerous, as we will see in the next chapter.

> **https://academic.oup.com/jcem/article/99/4/1132/2537181:**
> **Although both vitamin D2and D3undergo the same hydroxylation steps and are equipotent in treating r**ickets, vitamin D2has been found less toxic in animal studies and less efficacious in raising serum 25OHD concentration than vitamin D3.

Vitamin E

On a supplement label, natural vitamin E is listed as d-alpha tocopherol, d-alpha tocopheryl acetate, or d-alpha tocopheryl succinate. In contrast, synthetic forms of vitamin E are labeled with a dl- prefix.

Alpha-tocopherol is the most biologically active form of vitamin E, and its natural form consists of one isomer. In contrast, synthetic alpha-tocopherol contains eight different isomers, of which only one (about 12 percent of the synthetic molecule) is identical to natural vitamin E. The other seven isomers range in potency from 21 percent to 90 percent of natural d-alpha-tocopherol.

The body absorbs natural and synthetic supplements differently. Molecular structure determines how the body uses vitamin E. Researchers have found that natural vitamin E assimilates far better than synthetic versions. Specific binding and transport proteins produced in the liver select the natural d-alpha form of vitamin E and largely ignore all other forms.

In one experiment, Japanese researchers alternately gave natural and synthetic vitamin E to seven healthy young women. It took 300 mg synthetic vitamin E to equal the blood levels achieved by a 100-mg dose of natural vitamin E.
In blood levels, natural vitamin E increased twice as much as the synthetic form in healthy subjects and pregnant women. In umbilical cords, natural vitamin E levels were three times higher than synthetic vitamin levels.

Blood, however, is not vitamin E's final destination. So in the same study, researchers tracked short-term tissue assimilation of natural and synthetic vitamin E in study participants prior to elective surgery. Tissue takes longer than blood to absorb nutrients, but after seven to 23 days of supplementation, natural vitamin E levels rose higher than synthetic levels.

Researchers at Oregon State University, Corvallis, found the human body excretes synthetic vitamin E three times faster than the natural form.

> **https://pubmed.ncbi.nlm.nih.gov/9537614/:**

> The results indicated that natural vitamin E has roughly twice the availability of synthetic vitamin E.

Vitamin K

There are many forms of vitamin K2, there's only one animal form : vit K2- MK4. We don't use the form of the fermented foods very well, especially babies. Vit K2 supplements are the fermented form.

5. Synthetic vitamins are toxic

Dr. Royal Lee asked: "How can a single factor be isolated from a complex…and be justifiably sold with the claim that it is equal?" It can't. However, "do not infer from this that synthetic vitamins have no effect," he warns. "They *do* have *drug* effects—pharmacological actions that may or may not have much in common with the normal nutritional action."

Vitamin A

Three decades ago it was well established that people who consume more beta-carotene in their diets are less likely to develop many kinds of cancer, including lung cancer. Following this observation, a hypothesis was developed that a single nutrient, beta-carotene, was the key to cancer prevention. Two well-designed trials published in 1994 and 1996 compared the effects of taking beta-carotene supplements to a placebo for people at high risk for developing lung cancer (smokers and those exposed to asbestos).

Unexpectedly, in these two investigations more cancers were found in those people taking the beta-carotene pills. However, these findings did not invalidate the original observation: People who eat more fruits and vegetable have a lower risk of cancer. Beta-carotene is only found in plants, thus serves as a marker for the quantity of fruits and vegetables consumed. What is true is that a diet high in plant foods protects against cancer. The same effect does not carry over to consuming single nutrients, like beta-carotene. A pill is not a plant.

Beta-carotene is one of about 50 similar naturally occurring active substances in our diet classified as *carotenoids*. They are all especially

abundant in yellow and orange fruits and vegetables. After nutrients enter cells they float around in the cell's fluids (cytoplasm) until they attach themselves to the cellular machinery through a specific receptor, like a key fits into a lock. Beta-carotene and all of the other biologically active carotenoids must attach to these specific carotenoid receptors before they can function.

When a cell is flooded with one kind of carotenoid, in this case beta-

carotene after vitamin supplementation, then there is an overwhelming competition for the carotenoid receptor sites. The other 50 functional carotenoids are displaced by the beta-carotene from their cellular connections, creating deadly nutritional imbalances.

High amounts of synthetic vitamin A from supplements can be toxic, especially to those with impaired liver function and to those whose diets are otherwise poor.

Vitamin A in its natural form is actually a large group of natural compounds. Natural vitamin A
only comes from animal sources, and the truly natural dietary supplement forms usually are from
fish oils. Synthetic forms, which don't contain any natural vitamin A compounds, are typically in a dry form (tablet or capsule). The synthetic form of vitamin A is significantly more toxic than the natural form. The most commonly used synthetic form is vitamin A palmitate.

High levels of natural vitamin A have no toxic effects, in spite of the medical establishment's dire warnings to the contrary.

The warnings against vitamin A usually include mention of Arctic explorers who died from vitamin A overdose because they consumed polar bear livers. Actually, the early explorers did not die from eating polar bear liver. They did suffer from exfoliative dermatitis and hair loss. In 1988, a team of Swedish scientists discovered that polar bear and seal livers tend to accumulate the metal cadmium. The symptoms for cadmium poisoning are exfoliative dermatitis and hair loss, but don't expect to hear about this on the evening news. Rather, expect continuing stories about the alleged dangers of vitamins A and D. The media and the medical establishment work together to vilify the very substances that can prevent suffering and disease.

Vitamin B

Vitamin B

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.”

“Natural food-source vitamins are enzymatically alive. Man-made synthetic vitamins are dead chemicals.”

In one experiment, synthetic vitamin B (thiamine) was shown to render 100% of a group of pigs sterile!

High unit dosages of vitamin B1, for instance, may cause a fatty infiltration of the liver in the absence of the natural synergist choline.

Dr. Mills tells of observing acute toxic symptoms resembling hyperthyroidism occurring among people taking doses of thiamine (vitamin B1). He advises caution in its use, since overdosage can result in toxicity.

A study (https://pubmed.ncbi.nlm.nih.gov/20480523/) shows that consumption of synthetic vitamin B3 increases appetite, oxidative stress and is a major cause of obesity in children in the United States.

B6 deficiencies have been linked to diabetes, nervous disorders and coronary heart disease. They are prevalent in the United States because excess B1 and B2, added to white flour, interferes with B6 function.

The United Kingdom suspended its fortification program upon discovery of an increase in cancer rates attributable to the addition of folic acid. Ireland recently stopped its program as well.

Researchers also noticed that rates of colorectal cancer went up in North America around the same time that fortification began. They estimate that excess folic acid consumption may cause an additional 15,000 cases of colorectal cancer each year in the U.S. and Canada. By comparison, fortification prevents an estimated 2,000 to 3,000 cases of neural tube defects in both countries.

Another study showed the same problem in Chile after fortification began there in 2000, rates of colorectal cancer increased:

> **https://pubmed.ncbi.nlm.nih.gov/19190501/**:

> Our data provide new evidence that a folate fortification program could be associated with an additional risk of colon cancer.

Folic acid can speed up cancers for the same reason it can prevent

neural tube defects — the body uses more folate for rapid cell growth, something shared in the fetus and tumors.

> **https://pubmed.ncbi.nlm.nih.gov/17551129/:**
> Folic acid was associated with higher risks of having 3 or more adenomas and of noncolorectal cancers.

Over 50 years ago, research showed that synthetic folic acid supplements accelerated leukemia in children. Such studies helped lead to a class of antifolate drugs that are among today's most common cancer treatments.

There have always been safety issues surrounding the use of this synthetic vitamin. In addition to leukemia, one of the first concerns was related to the masking effect of folic acid on vitamin B12 deficiency, the cause of pernicious anemia:

> **https://pubmed.ncbi.nlm.nih.gov/9174474/**
> The strategy of universal fortification of staple foodstuffs with folic acid presents the possibility of life-long exposure to unmetabolized folic acid. Chief among the risks of exposure to folic acid in the circulation is that of masking the diagnosis of cobalamin deficiency in pernicious anemia and the progression of neurologic disease. Other effects are unknown. For instance, the effect of in vivo chronic exposure of adult and fetal cells to the synthetic form of the vitamin has never been investigated at the population level.

It's been theorized that the cause of so many folate-related genetic polymorphisms today is high levels of unmetabolized folic acid (UFA) from high intakes of synthetic folic acid. In animal studies, higher levels of UFA can adversely affect DNA, and these changes influence subsequent generations. There is concern that the same problem is occurring in humans. In Spain, for example, the prevalence of the polymorphism has reportedly doubled since the introduction in 1982 of folic acid supplements for women in early pregnancy.

Unmetabolized folic acid might cause harm (this form is due to the inability of the body to convert synthetic folic acid to a natural form)

inability of the body to convert synthetic folic acid to a natural form)

Synthetic folic acid may actually reduce the body's ability to metabolize food folates, and prevent the conversion of folic acid to its most active form, 5-MTHF.
Unfortunately, many people are unable to convert folic acid to the natural active form due to a genetic disorder.

If conversion to 5-MTHF does not occur effectively, UFA can accumulate in the blood. UFA is associated with a variety of potential health problems. These include:

- Impairment of the body's production of natural killer cells weakening the immune system. Natural killer cells are an important part of our body's immune response, capable of killing tumor cells and viruses, for example. (It's now known that natural folate can also act as a powerful antioxidant).

> **https://pubmed.ncbi.nlm.nih.gov/28724658/***:*
> healthy adults responded to a high-dose FA supplement with increased UMFA concentrations, changes in cytokine mRNA expression, and reduced number and cytotoxicity of NK cells

- High folic acid intake may increase the risk of cognitive decline with aging. A recent study by Martha Savaria Morris and colleagues at Tufts University (*Am J Clin Nutr*;2010, 91) showed a relationship between UFA and lower cognitive test scores in subjects 60 years and older.
- This study also showed that those consuming alcoholic beverages combined with circulating UFA can interact synergistically to precipitate anemia even in the absence of vitamin B12 deficiency. This translates to nearly two million elderly who might be at increased risk of cognitive impairment.
- In pregnant women, high folic acid in the blood may increase the risk of insulin resistance and obesity in their children.

In the USA, 43% percent of children 5 years and older are consuming in excess of 780 mcg of synthetic folic acid each day. This is double the proposed tolerable upper limit (300-400 mcg) for children of that age. Even more alarming is that 10 percent are consuming more than 1,320

mcg per day, which is well above the tolerable upper limit for adults. High levels were also found in children aged 6-11 years, and those over the age of 60. The potential harm is a particular problem in children who are at a rapid stage of development when susceptibility to genetic damage is high. In addition, a mother's folate status can influence the child's genes.

Inactive vitamins are biologically inert, meaning that they can only perform their advertised function once they have been converted to their active forms.

The body is not able to convert large amounts of inactive B9 (folic acid) into active folate.

One study concludes that people with epilepsy may have worse seizures because of folic acid supplementation:

> **https://jnnp.bmj.com/content/72/5/567:**
> The mechanism of the excitatory properties of folates is uncertain, but there is some evidence that they may do so by blocking or reversing GABA mediated inhibition

"The problem with synthetic vitamins is they're pure," said the great holistic nutritionist Dr. Royal Lee. What he meant is that, whereas vitamins in food are naturally accompanied by countless cofactors critical for the proper function of the nutrient, synthetic vitamins are lone chemicals, devoid of their required, synergistic helpers. The difference between the two, Dr. Lee said, is the difference between a nutritive and a pharmacological effect. And many early nutrition studies support this idea. In the experiment presented here, eminent nutrition scientist Dr. Agnes Fay Morgan discusses the surprising effects of "enriching" the feed of dogs on a low-vitamin-B diet with synthetic supplements. Whereas dogs with no supplementation developed the symptoms expected of a partial lack of vitamin B—fatigue, poor digestion, slowed growth—the dogs given synthetic B vitamins developed different and *far more grave*conditions, including progressive neuromuscular degeneration followed by paralysis and, finally, death. These "unexpected failures of nutrition" were exactly the type of pharmacological effects Dr. Lee decried regarding synthetic vitamins, and they compelled Dr. Morgan to warn of the "possible danger of the administration of large amounts" of artificial B vitamins, adding that "fortification of foods with those vitamins" could precipitate conditions worse than those created by a deficiency. This did not deter

the Food and Drug Administration, however, which less than two years after this study launched its flour “enrichment” program, requiring the addition of various synthetic B vitamins to all white bread in America—some of those chemicals the very compounds that hurried Dr. Morgan’s dogs to an unnatural death. From *Science*, 1941.

Vitamin C

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 laboratory 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.

Ascorbic acid, although proven to kill bacteria effectively, does not discriminate in its antimicrobial abilities as it also eliminates good bacteria or probiotics in the gut. Whole foods with vitamin C do not harm beneficial gut bacteria unlike synthetic vitamin C does.

A new study on vitamin C (https://pubmed.ncbi.nlm.nih.gov/18175748/) showed adults taking the synthetic version had serious side effects. Doses of 1,000 mg of vitamin C a day impaired their energy systems (significantly hampering their endurance capacity), specifically by weakening the mitochondria of the cell (which burns fat and sugar). It also had significant adverse effects on the antioxidant system (a key immune regulator). Those who take vitamin C often take this amount or more, and it’s almost always synthetic. Children may be even more vulnerable.
(Other study: https://pubmed.ncbi.nlm.nih.gov/24492839/)

Since synthetic ascorbic acid does not contain the full complex, your body must either gather the missing components from the body’s reservoir, or simply eliminate the ascorbic acid from the body through the urine without benefit to the body.

Whole food vitamins contain within them many essential trace elements

necessary for their synergistic functioning. Synthetic vitamins do not contain trace elements; the body must draw on its own mineral reserves

contain trace elements: the body must draw on its own mineral reserves to be able to use the isolated vitamins, which creates long-term demineralization.

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.

Vitamin D

Synthetic vitamin D2 has been linked to hyperactivity, coronary heart disease and allergic reactions.

Large doses of vitamin E, as well as vitamin D, have been shown to significantly decrease immune function.

High levels of synthetic vitamin D cause brittle bones, growth problems in children, increased risk of cardiovascular disease and cancer:

> **https://academic.oup.com/jcem/article/99/4/1132/2537181**
> During intoxication, high concentrations of either 25OHD or free 1,25(OH)2D lead to hypercalcemia by increasing intestinal calcium absorption and bone resorption.In turn, hypercalcemia increases the calcium load that is filtered through the kidney, resulting in hypercalciuria via a mechanism that involves increased calcium excretion in the distal tubule. Persistently elevated serum calcium concentrations may also cause polyuria and dehydration because of an inability of the kidneys to appropriately concentrate urine.
> high doses of vitamin D raise the incidence of falls and fractures. These events were linked to the mode of vitamin D administration as stoss therapy, ie, as a single large bolus compared to smaller intermittent doses.
> Beyond skeletal health, similar curvilinear or U-shaped response has been described for other vitamin D outcomes, including all-cause mortality, cardiovascular disease, and selected cancers, so that the IOM cautions against maintaining serum 25OHD concentrations above 50 ng/mL (125 nmol/L).
>
> In the late 1930s, treatment of infants with high vitamin D doses was reported to impair growth. The pediatric experience with stoss therapy indicates that single doses of 600 000 IU in infants with rickets were associated with high rates of

hypercalcemia, whereas doses in the range of 100 000 to 200 000 IU had no ill effects. Hypercalcemia was also observed in a few infants who received single doses of 300 000 IU.

Children with vitamin D intoxication present with symptoms of hypercalcemia, such as poor appetite, weight loss, abdominal pain, vomiting, constipation, polyuria, and polydipsia, and in severe cases, life-threatening dehydration.

Treatment efforts target children and adolescents with symptomatic hypercalcemia. As a first step, the source of vitamin D is removed, and the levels are allowed to decrease with time, an event that typically occurs over several weeks. Because vitamin D has a long half-life, serum 25OHD concentrations may occasionally continue to climb after discontinuation of vitamin D administration. Therefore, it is prudent to monitor symptoms and serum calcium concentrations for those asymptomatic patients with excessively high 25OHD levels.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6158375/: Vitamin D Toxicity–A Clinical Perspective

Confusion, apathy, recurrent vomiting, abdominal pain, polyuria, polydipsia, and dehydration are the most often noted clinical symptoms of vitamin D toxicity. Serum 25-hydroxyvitamin D [25(OH)D] concentrations higher than 150 ng/ml (375 nmol/l) are the hallmark of VDT due to vitamin D overdosing.In healthy individuals, exogenous VDT is usually caused by prolonged use (months) of vitamin D mega doses, but not by the abnormally high exposure of skin to the sun or by eating a diversified diet.The human body can regulate the quantity of previtamin D (tachysterol and lumisterol) produced in the skin by ultraviolet-B radiation. Exogenous VDT due to vitamin D overdosing is diagnosed by markedly elevated 25(OH)D concentrations (>150 ng/ml) accompanied by severe hypercalcemia and hypercalciuria and by very low or undetectable parathyroid hormone (PTH) activity

Symptoms of VDT may be similar to those of other hypercalcemic states and include neuropsychiatric manifestations, such as difficulty in concentration, confusion, apathy, drowsiness, depression, psychosis, and in extreme cases, a stupor and coma. The gastrointestinal symptoms of VDT include recurrent vomiting, abdominal pain, polydipsia, anorexia, constipation, peptic ulcers, and pancreatitis. The cardiovascular manifestations of VDT include hypertension, shortened QT interval, ST segment elevation, and bradyarrhythmias with first-degree heart block on the electrocardiogram. The renal symptoms include hypercalciuria as the earliest sign, polyuria, polydipsia, dehydration, nephrocalcinosis, and renal failure. Other symptoms of VDT caused by hypercalcemia include band keratopathy, hearing loss, and painful periarticular calcinosis

In a controversial study, elderly women who received an annual single high dose of

> In a controversial study, elderly women who received an annual single high dose of vitamin D (500,000 IU) had higher rates of fractures and falls than women in the control group, who received a placebo

Vitamin E

Supplements of alpha tocopherol are usually very high, unnatural doses. Normally,
consuming a full days worth of high vitamin E-rich foods would yield about 30-40 IU of alpha
tocopherol, yet the typical dose in supplements is 10 times that, sometimes much more.

> https://academic.oup.com/jn/article/133/10/3137/4687537
> Despite promising evidence from in vitro experiments and observational studies, supplementation of diets with α-tocopherol has not reduced the risk of cardiovascular disease and cancer in most large-scale clinical trials. One plausible explanation is that the potential health benefits of α-tocopherol supplements are offset by deleterious changes in the bioavailability and/or bioactivity of other nutrients. We studied the effects of supplementing diets with
> *RRR*-α-tocopheryl acetate (400 IU/d) on serum concentrations of γ- and δ-tocopherol in a randomized, placebo-controlled trial in 184 adult nonsmokers. Outcomes were changes in serum concentrations of γ- and δ-tocopherol from baseline to the end of the 2-mo experimental period. Compared with placebo, supplementation with α-tocopherol reduced serum γ-tocopherol concentrations by a median change of 58% [95% CI = (51%, 66%),
> $P < 0.0001$], and reduced the number of individuals with detectable δ-tocopherol concentrations (
> P
> < 0.0001). Consistent with trial results were the results from baseline cross-sectional analyses, in which prior vitamin E supplement users had significantly lower serum γ-tocopherol than nonusers. In view of the potential benefits of γ- and δ-tocopherol, the efficacy of α-tocopherol supplementation may be reduced due to decreases in serum γ- and δ-tocopherol levels. Additional research is clearly warranted.

> **https://pubmed.ncbi.nlm.nih.gov/8127329/**
> We found no reduction in the incidence of lung cancer among male smokers after five to eight years of dietary supplementation with alpha-tocopherol or beta carotene. In fact, this trial raises the possibility that these supplements may actually have harmful as well as beneficial effects.

Some studies show that taking high doses of vitamin E, which is between 300 and 800 IU per day, may increase your risk of having a serious stroke by 22%. A serious side effect of too much vitamin E is an increased risk of bleeding, especially in the brain.

A study shows that vitamin E supplements can also be harmful to women during early pregnancy. Women who took vitamin E supplements during their first eight weeks of pregnancy experienced an increase in congenital heart defects. High doses of vitamin E can also sometimes cause nausea, diarrhea, stomach cramps, fatigue, weakness, headache, blurred vision, rash, bruising and bleeding. Topical vitamin E can irritate the skin.

Vitamin K

Synthetic vitamin K, called K3 or menadione, is no longer used in food supplements in developed countries due to deleterious side effects such as hemolytic anemia resulting from acquired favism, or abnormalities induced in infants in the brain and liver, even rare cases of sudden infant death syndrome.

Data indicates that vitamin supplements may actually lead to more cancer (especially breast and prostate), cardiovascular disease, kidney damage (in people with diabetes), and fractures, while not helping to prevent infections.

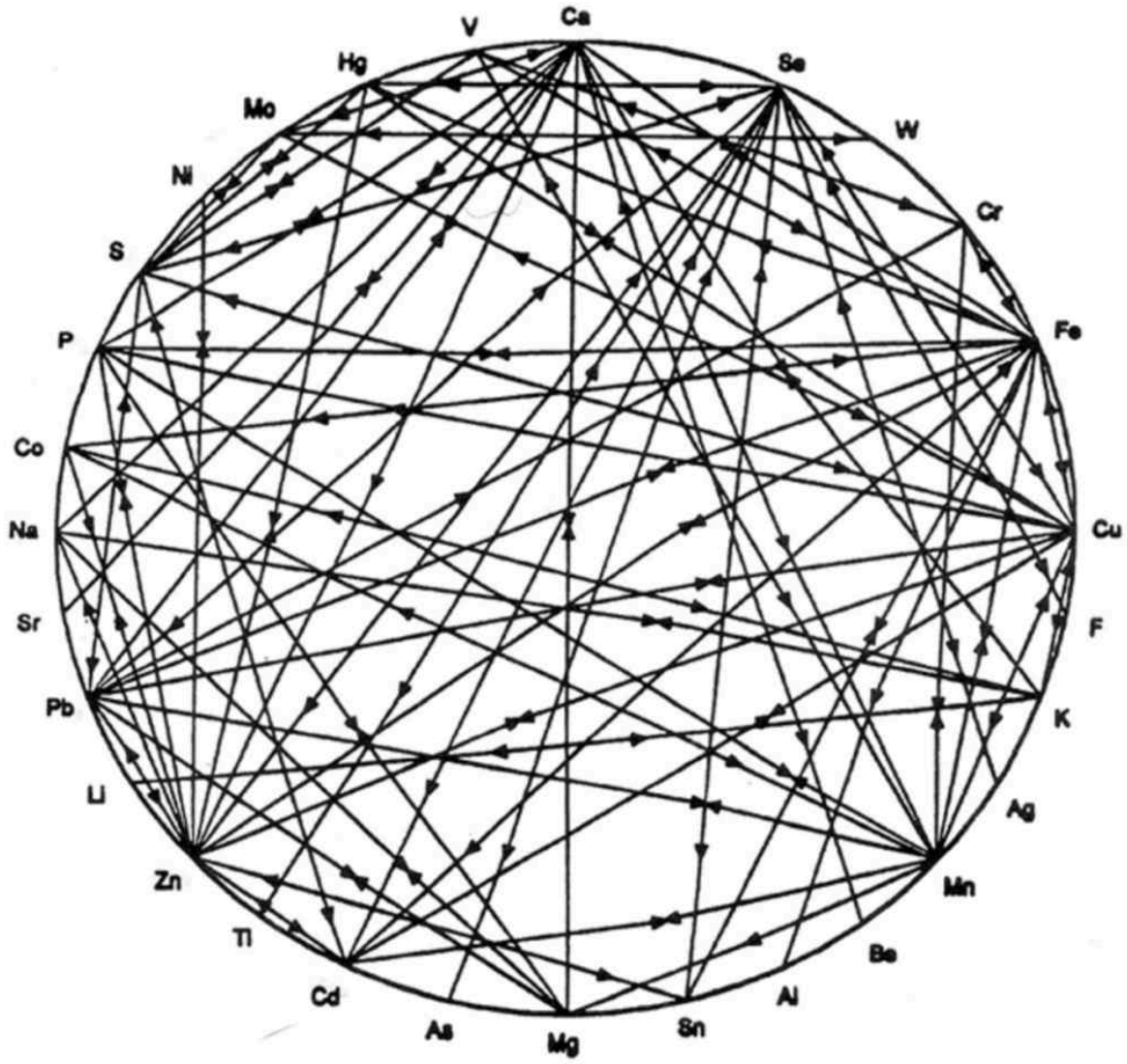
6. Supplementation with minerals and trace-minerals

The main problem with artificial supplementation with minerals and

trace minerals is the risk of overdose. Trace minerals should be consumed in very small amounts as all trace minerals are toxic at high levels. These minerals include chromium, copper, iodine, iron, fluorine, manganese, molybdenum, selenium and zinc.

Minerals work in synergy with each other. Supplementation with 1 mineral will inevitably lead to deficiencies in its co-factor minerals, not to mention its vitamin co-factors which we have already discussed above.

Just look at the mineral wheel. Arrows between minerals represent synergistic interactions between these minerals:



Iron supplementation is probably one of the most dangerous:

> **https://pubmed.ncbi.nlm.nih.gov/21987192/**
>
> the use of multivitamins, vitamin B(6), folic acid, iron, magnesium, zinc, and copper were associated with increased risk of total mortality when compared with corresponding nonuse.
> In older women, several commonly used dietary vitamin and mineral supplements may be associated with increased total mortality risk; this association is strongest with supplemental iron.

Calcium supplementation is also problematic: calcium acts in synergy particularly with magnesium. It turns out that our modern diet is very

rich in calcium but extremely deficient in magnesium. Supplementing yourself with calcium will only worsen your magnesium deficiency and cause hypercalcemia problems such as kidney stones, cardiovascular disease, arthritis, dermatitis etc.

Conclusion

We have seen that synthetic vitamins are toxic because they are made in a laboratory, from chemicals and refined sugars, and because they are isolated from their co-factors.

In this article I wanted to stay factual and down to earth by addressing only the scientific side of the problem. I haven't even touched on the vibratory side here, which is far from anecdotal when it comes to the toxicity of synthetic vitamins. Everything is vibration and this obviously does not exclude vitamins. At the vibratory level, synthetic vitamins made in a laboratory are "dead", while vitamins from natural foods are alive and emit vibrations that resonate with our body.

Now, let's answer the question asked in the introduction to this article: if our modern foods are deficient in nutrients, and if vitamin and mineral supplements are not an adequate solution, then can we do?
As I said in introduction, the first thing humans should do is go back to nature and live with it, not against it. Humans must respect it and stop wanting to transform it. Whatever man makes will never come close to nature's perfection.

While we wait for our society to come to its senses and return to a natural way of life, I encourage you to learn about wild edible plants and consume them rather than consuming store-bought fruits and vegetables lacking in nutrients. Wild plants grow in healthy soil rich in minerals and rich in bacteria, fungi and insects, which allow plants to absorb all the nutrients they need. Consuming wild plants will provide you with infinitely more nutrients than cultivated plants.

In addition to a good, healthy and varied diet, if you want to supplement with vitamins and minerals, always choose food concentrates rather than vitamins and minerals isolated made in a lab:

For vitamin A, eat liver or buy liver concentrate capsules

For vitamin A, eat liver or buy liver concentrate capsules (https://ancestralsupplements.com/desiccated-liver)

For the B vitamins, eat liver, eat whole grains and seeds that are properly prepared or supplement with nutritional yeast (be careful, however, with nutritional yeast that I do not recommend if you have gut dysbiosis)

For vitamin C, choose 100% acerola powder with no additives.

For vitamin D, eat cod liver.

For vitamin E, consume wheat germ oil.

For vitamin F, (omega 6 and 3), eat fatty fish or supplement with quality krill oil.

For vitamin K1, drink vegetable juices regularly. Vegetable juices allow you to absorb many more vegetables than if you ate them whole. In addition, juices are made from fresh raw vegetables, which preserves all the vitamins and enzymes.

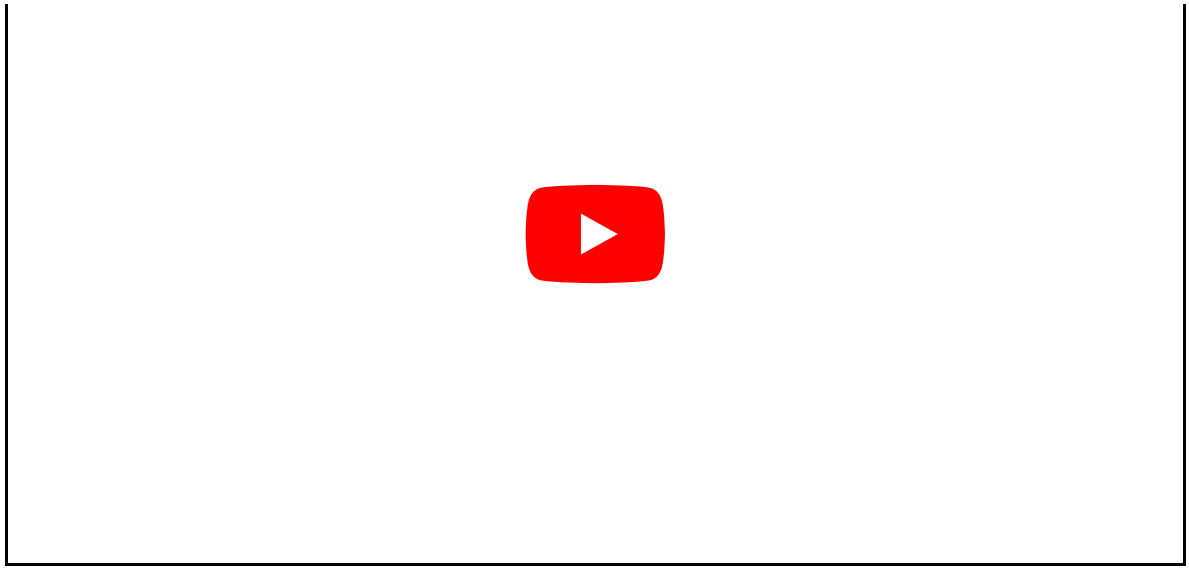
For vitamin K2, supplement with emu oil: https://walkabouthealthproducts.com

If you have mineral deficiencies, eat seaweed or supplement with seaweed concentrates, drink Quinton seawater, supplement with natural marine magnesium, or **drink clay** regularly.

But, most importantly, don't eat processed foods, eliminate all chemical poisons from your environment and eat a healthy diet made of whole, organic foods.
And, of course, take care of your gut: if your gut is damaged, no matter how much you eat the best foods and the best supplements, you won't be absorbing them. Learn how to heal your gut **here**.

> Weston A. Price
> *« Life in all its fullness, is mother nature obeyed »*

L' Alimentation Humaine Naturelle: Weston Price Nutrition et ...



Sources:

https://www.sciencedirect.com/science/article/pii/S0738081X10000520

https://www.westonaprice.org/health-topics/abcs-of-nutrition/vitamin-primer/

https://www.westonaprice.org/podcast/261-food-supplements/

https://philmaffetone.com/serious-dangers-of-synthetic-unnatural-vitamins/

https://pubmed.ncbi.nlm.nih.gov/18175748/

https://pubmed.ncbi.nlm.nih.gov/24492839/

https://philmaffetone.com/folate-plot-part-3/

https://pubmed.ncbi.nlm.nih.gov/19190501/

https://www.fda.gov/files/about%20fda/published/Folic-Acid-Fortification

https://philmaffetone.com/folate-plot-part-1/

https://shop.philmaffetone.com/collections/supplements/products/all-active-b-complex?_ga=2.136429367.603998470.1631196366-5099175.1631196366

https://shop.philmaffetone.com/collections/supplements/products/d-complex?_ga=2.182562849.603998470.1631196366-5099175.1631196366

https://philmaffetone.com/supplements/science/

https://pubmed.ncbi.nlm.nih.gov/9174474/

https://pubmed.ncbi.nlm.nih.gov/28724658/

https://pubmed.ncbi.nlm.nih.gov/17551129/

https://jnnp.bmj.com/content/72/5/567

https://academic.oup.com/jn/article/133/10/3137/4687537

https://en.wikipedia.org/wiki/A-Tocopherol

https://en.wikipedia.org/wiki/Vitamin_E

https://chiro.org/nutrition/FULL/Natural_vs_Synthetic_Vitamin_E.shtml

https://www.precisionnutrition.com/all-about-vitamin-supplements

https://cassingram.com/solvent-residues-toxic-components-dietary-supplements/

https://www.mamavation.com/featured/toxic-vitamins-how-to-pick-a-supplement-thats-clean-for-your-family.html

https://vitagenics.me/metabolites-isomers/

https://www.drroyallee.com/what-is-a-vitamin/

https://www.drroyallee.com/biography/

https://www.drroyallee.com/the-great-cover-up/

https://www.seleneriverpress.com/historical/how-organized-medicine-is-fighting-vitamins/

https://www.seleneriverpress.com/historical/facts-are-published-why-not-be-honest-about-it/

https://www.seleneriverpress.com/historical/synthetic-versus-natural-vitamins/

https://www.seleneriverpress.com/archivetags/vitamins-natural-vs-synthetic/

https://pubmed.ncbi.nlm.nih.gov/3414575/

https://www.youtube.com/watch?v=1FP08D1kW5M

https://theartofunity.com/toxins-in-supplements/

https://www.primaldiet.net/enduring-and-persisting-through-difficult-detoxification/

https://www.naturalnews.com/040147_vitamin_c_ascorbic_acid_synthetic_vitam

https://thedoctorwithin.com/blog/2009/10/21/ascorbic-acid-is-not-vitamin-c/

https://pubmed.ncbi.nlm.nih.gov/8127329/

https://thedoctorwithin.com/blog/2016/12/18/minerals-the-most-overlooked-nutrient/

https://www.westonaprice.org/health-topics/health-issues/dietary-supplements-what-the-industry-does-not-want-you-to-know/

https://healthfully.com/list-of-toxic-ingredients-used-in-vitamin-supplements-6552315.html

https://pubmed.ncbi.nlm.nih.gov/9537614/

https://pubmed.ncbi.nlm.nih.gov/21987192/

https://academic.oup.com/jcem/article/99/4/1132/2537181

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6158375/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5980613/

https://dailyhealthpost.com/centrum-multivitamin/

https://pubmed.ncbi.nlm.nih.gov/7477116/

https://pubmed.ncbi.nlm.nih.gov/15537682/

https://pubmed.ncbi.nlm.nih.gov/19920236/

https://www.ncbi.nlm.nih.gov/books/NBK532916/#!po=1.61290

https://myersdetox.com/90-of-vitamins-are-synthetic/