

Your Vitamins Are Obsolete

The Vitamer Revolution: A Program for Healthy Living and Longevity

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Excerpts from the book:

Genetics, Stress, Hormones, GERD Medications, Metformin, Aging, Pollution, Weight Gain, Voluntary and Involuntary Veganism, Poorly Manufactured Supplements → ↓ *B₁₂/Folate*

↓ *B₁₂/Folate* → ↓ *Epigenetic Methylation* → ↓ *Gene Suppression* (↑ *Expression of Pro-Inflammatory Genes*) → ↑ *Chronic Inflammation* → ↓ *Healthy Living* (*Dementia, Diabetes, Heart Disease, Cancer*)

“*Your Vitamins Are Obsolete*” tells the story of why certain vitamins found in your supplements do not fulfill all the expectations we have of them. To explain this obsolescence, this book will focus on the two most essential vitamins that facilitate the creation of the fuel molecules used by cells for energy, cleanse the cells of waste products, and modulate the expression of genes—B₁₂ and folate.

In the title, “*Vitamins*” is short-hand for “multiple vitamin supplements” that are obsolete. Multivitamins are taken to achieve a health benefit or as inexpensive health insurance. Insurance against a possible missing nutrient in the diet that could contribute to any one of a number of signs and symptoms.

The book will focus on the two most essential vitamins— B₁₂ and folate— in their vitamer forms. A vitamer is one of many molecular forms of a particular vitamin. I will be using the term to specifically focus on the bioactive forms (vitamers), which are the only ones that cells can use. I call these B vitamins the most essential of the essential nutrients because if there is not enough B₁₂ and folate, the use of other vitamins and other medical interventions are not biologically efficient. For example, you could have plenty of vitamin D and calcium, but if you don’t have enough of these B₁₂ and folate vitamers, you can still develop osteoporosis.

Energy is required by every cell to complete all the other thousands of biochemical reactions in the most efficient manner possible. Low intake or utilization of B₁₂ and folate causes reduced cellular energy, which slows cognitive function, increases fatigue, worsens sleep, and causes mood disturbances. Worst of all, a deficiency of either increases chronic inflammation which contributes to the onset of most major illnesses. The connection between sub-adequate vitamer levels and chronic inflammation through the field of epigenetics is *The Vitamer Revolution*—the science behind the future of medicine.

Below are some facts I will be explore in the chapters to follow:

- Most medical training and textbooks state that there is a three-year reserve of B₁₂ in the liver. Unfortunately, healthcare is based on this incorrect assumption. The liver does not and cannot store *water-soluble* B vitamins.
- Only 30 to 40 percent of people have enough of the enzyme (MTHFR) that efficiently converts the folic acid found in supplements and grain products into folate, the bioactive form used by the body.

- There is plenty of B₁₂ and folate in red meat, but 50 percent of people over the age of fifty cannot manufacture enough stomach acid to break down the protein to release these vitamins.
- The widespread use of medications to reduce stomach acids, such as H-2 blockers and proton-pump inhibitors, can lead to a medically induced B₁₂ deficiency, as can the exposure to nitrous oxide anesthesia used for surgical and dental procedures.
- The enzyme that changes folic acid into bioactive folate, known as MTHFR, is blocked by many medications, including NSAIDs, antibiotics, diuretics, aspirin, birth control pills, hormone replacement therapy, steroids, and metformin.
- The damage to sensory nerve cells due to B₁₂ deficiency starts long before the shortage can be detected on blood tests for the vitamin-deficient anemia called macrocytic anemia.
- Deficiencies in B₁₂ or folate are not nearly as rare or as easy to diagnose as we were led to believe in medical training.

Here's how a combined B₁₂/folate deficiency list might look if we included the “too small to be obvious” problems as well as the “large” problems. Do you or yours experience any of these?

- Neurologic problems—numbness, weakness, incontinence, dementia
- Cardiovascular damage—arteriosclerosis, heart attacks, strokes, pulmonary emboli
- Immune system weakness—chronic inflammation, poor wound healing, feeling sickly
- Hematologic impairment—anemia, fatigue, increased infection, poor wound healing
- Endocrinologic upset—weight gain, obesity, diabetes, osteoporosis
- Gynecologic impairment—false abnormal pap smears, PMS, postpartum depression, infertility
- Psychiatric distress—irritability, depression, anxiety, poor concentration
- Gastrointestinal problems—weight loss or gain, constipation, irritable bowel, mouth ulcers

The following are some additional little-known details that will also be explored:

- B₁₂ and folate deficiency hamper the elimination of a cellular waste product called homocysteine. A buildup of homocysteine causes increased blood viscosity, blood clots, inflammation, arterial damage, unhealthy aging, and other medical problems.
- B₁₂ and folate vitamins modulate the level of long-term inflammation through a process called DNA epigenetic methylation. This process regulates the protein expression of genes.
- Many textbooks are mistaken in stating the liver has the highest concentration of B₁₂ in the body. It certainly has the greatest *amount* of B₁₂ because it is so large, but the pituitary gland contains a much greater *concentration* of the vitamin. This little-known fact has tremendous implications for health and disease because the pituitary helps regulate most hormone production in the body.
- Japan sets a high level for normal B₁₂ below which neurologic symptoms start, while in the US we set the level two to three times lower at the level which anemia starts. This means that sensory nerve damage starts before anemia changes even appear in the lab tests your doctor ordered.
- Folate and B₁₂ are co-enzymes, so both must be present in adequate amounts for a few essential biochemical reactions to work, such as cellular energy production.
- Vaccinations, such as the pneumococcal vaccines, can be significantly less effective when vitamin B levels are reduced.
- When B vitamins are taken by vegans and vegetarians, they can actually maximize the benefits of their dietary choices and reduce fertility difficulties.
- Regular use of B vitamins decreases the craving for red meat, promoting personal health and ecologic benefits.
- Only humans have a high concentration of methyl-B₁₂ in our blood because of our unique brains and circadian rhythms.
- If shellfish were not such a great supply of B₁₂ and folate, all humans on earth would be speaking various Neanderthal dialects rather than a Homo sapiens language.
- All earthlings going to Mars will carry vitamins to survive the voyage.

In sum, there is a deficiency of vitamins in our food, our supplements, and our bodies. Switching to B₁₂ and folate in the vitamin forms can make a significant positive change in your health. The new knowledge you will acquire can help you make better choices for yourself and your loved ones and save your dollars from just being flushed away. By the end of the book, you will fully understand the importance of vitamins and how to use them for healthy living and healthy longevity.