



Why We Need  
Micronutrients  
& How To Get Them

# The Super Hero Formula

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*Superior Health Made Simple:*

*Why We Need Micronutrients and How to Get Them*

## **Introduction**

Micronutrients are elements such as vitamins and minerals required for the normal growth and development of living organisms. Their role in optimizing health, and in the treatment or prevention of disease, is gaining popularity.

This awareness is due to increased knowledge and understanding of the biochemical activities of nutrients. In an ideal world, all health experts would be aware of the essential benefits of various nutrients, and know how to utilize certain micronutrients in order to gain clinical benefits.

Most nutritional aspects of disease are not yet widely understood in medical circles, although, more and more health professionals are becoming aware of the critical connection between nutrient deficiencies and disease. As human beings, we are part of nature and must take natural elements into our bodies if we are to function optimally. Indeed, the healthiest cultures around the globe have known for centuries what we in the west are only beginning to discover: in order to experience superior levels of health, we must look to nature's FARM-acy, and its abundant variety of essential micronutrients.

## **Farm-acy**

According to the USDA, here are some of the most nutritious foods along with the micronutrients they contain:

- Vitamin A - Yellow vegetables and fruits, orange, yolk, cheese and milk
- Vitamin B - Green leafy vegetables, seeds, nuts, whole grains and legumes
- Vitamin C - Cabbage, parsley, strawberry, broccoli, citrus fruits
- Vitamin D - Some mushrooms, fatty fish (like salmon, tuna), yolk, fish oil, cheese
- Vitamin E – Whole grains, avocado, olive oil and olives

- Iron - Legumes, green leafy vegetables, lean meat
- Calcium - Green leafy vegetables, tahini, almonds, dairy products
- Magnesium - Green leafy vegetables, legumes, whole grains, seeds, nuts
- Zinc - Sunflower and pumpkin seeds, fish, chicken, lean meat
- Selenium - Oats, sunflower seeds, wheat germ, Brazil nuts

While it would be nice to obtain optimum levels of nutrients purely from food, most of us don't, or can't, maintain a diet to support this goal.

## **We Are Nutrient Starved**

"99% of American people are deficient in minerals, and a marked deficiency in any one of the more important minerals actually results in disease." U.S. - Senate Document #264

Sadly, the present American Diet lacks important nutrients on account of crops grown in depleted soil, ineffective agricultural practices, and heavy use of pesticides. The result is de-vitalized produce. The apple that was consumed 50 years ago is not even remotely the same in its nutritional value as an apple consumed today.

According to a [study published in HortScience by Donald R. Davis](#), crops that are artificially accelerated to maturity consistently measure as much as 40% lower in minerals, vitamins, and protein. Less time to mature means inadequate amounts of sunlight and moisture get into the plant. Disregard of natural crop rotation methods in modern farming leaves the soil continuously more depleted, unable to provide the plants adequate levels of nutrients for human consumption.

Beyond modern agricultural practices contributing to the decline in healthy produce, our diets are further nutrient depleted by fast food addictions that focus heavily on refined and processed (junk) foods. The layering of fat, sugar, and salt to create what the food industry calls "craveability"- aka addiction - to these flavors is a formula that does not exist in nature and is taxing on our bodies, requiring withdrawal from the micronutrient reserves stored in our brains, bones, teeth, etc... to try and correct the imbalances that this type of non-food creates.

## **The Organic Imperative**

The Centers for Disease Control shows the vast majority of Americans greatly lacking in consumption of quality nutrients. Even eating the recommended 5 servings of fresh fruits and

veggies per day won't help you reach minimum requirements when the produce is nutrient depleted. What modern diets lack is the potency of nutrients that were once easy to come by.

We should strive to consume organic fruits and vegetables and look for free range, organic, and/or wild-caught poultry and fish in order to obtain more potent nutrients. Packaging should indicate the products are: 100% organic, GMO-free or Non-GMO, Non-GMO Project Verified, and/or wild-crafted. It is understandable that eating 100% organic may not be possible, so knowing which foods are more heavily contaminated with pesticides may help the decision process. At a minimum, try to purchase the following foods organic:

**Peaches/Nectarines** - Sprayed with multiple varieties of pesticides. Plus, their delicate skin makes it easy for chemicals to penetrate the skin.

**Apples** - Scrubbing and peeling can't get all the pesticides off. The heavy waxing of apples also traps pesticides underneath.

**Strawberries** - One EWG report found 36 types of pesticides on strawberries. Out-of-season, imported strawberries are the most risky.

**Grapes** (especially imported varieties) - Another thin-skinned fruit, sprayed with 35 different pesticides.

**Cherries** - Pesticides were found on 91% of the cherries tested in the EWG study.

**Nectarines** - Pesticides were found on 97% of the nectarines tested.

**Pears** - A pears delicate skin makes it difficult to scrub thoroughly and easy for chemicals to sink in.

**Red Raspberries** - Their fuzzy exterior makes it difficult to wash off any of the 39 pesticides used.

**Sweet Bell Peppers** - Thin skinned and heavily sprayed.

**Celery** - The thin skin of this vegetable is sprayed with 29 varieties of pesticides.

**Spinach and Lettuces** - Lettuces are frequently contaminated with what are considered the most potent pesticides used on food.

**Potatoes** - In addition to pesticides, potatoes are contaminated with fungicides.

**Tomatoes** - Their soft skin is easily penetrated by contaminants.

A regularly updated, full list of foods can be found at the [Environmental Working Group](#) website.

Additionally, pesticides get concentrated inside animal's bodies and result in milk, meat, butter and eggs that contain toxic residues and are nutritionally inferior. Use of growth hormones and antibiotics in livestock creates further health problems and diseases in the animals that get ingested by the person consuming them. Therefore, these animal products should ALWAYS be free range and organic.

## **Pioneers in Nutrition:**

### **People Who Discovered the "Holes" in our Health, and Found Solutions**

\*This is only a brief list from a great number of health pioneers, but is enough to highlight incredibly important discoveries that can correct debilitating, chronic health issues.\*

#### **Dr. Weston A. Price**

Dr. Weston A. Price (1870-1948), a Cleveland dentist, suggested that all "Politically Correct" nutrition is in fact, wrong. In his travels around the globe, he observed and noted which cultures were healthiest along with their practices. He learned that the healthiest cultures relied on pure sources of food that were unprocessed - direct from Mother Nature's "Farmacy".

When native cultures still consumed their original, natural diets, they were immune to the diseases that plagued the modern world. He saw that the diet of the modern world was missing key critical nutrients essential for maintaining not only optimal health, but also how essential nutrients played a major role in proper formation of balanced facial features and jaw structures. To learn more about the discoveries of Weston price, visit the [Inspiring People](#) section of the Natural Girl Diary website.

#### **Francis M. Pottenger, Jr.**

Francis M. Pottenger, Jr. (1901–1967) was the son of Francis Sr., the physician who co-founded the Pottenger Sanatorium for treatment of tuberculosis in Monrovia, California. Francis Pottenger, Jr. began working at the sanatorium in 1930, highlighting proper diet based on the

discoveries of Weston Price in the treatment of respiratory diseases such as asthma, allergies, emphysema, and TB. Most famous for his studies on cats, his work highlighted the nutritive value of raw foods over cooked. He noticed that when he fed raw meat to cats, they were healthier than cats fed cooked meat. This led him to conduct a controlled scientific study to explore the effects further. From [Wikipedia](#), here are the results from his Meat Study on cats:

“In one study, one group of cats was fed a diet of two-thirds raw meat, one-third raw milk, and cod-liver oil while the second group was fed a diet of two-thirds cooked meat, one-third raw milk, and cod-liver oil. The **cats fed the all-raw diet were healthy** while the **cats fed the cooked meat diet developed various health problems.**” (Note that the only difference was between raw and cooked meat.)

“**By the end of the first generation** the cats started to develop degenerative diseases and became quite lazy. **By the end of the second generation**, the cats had developed degenerative diseases by mid-life and started losing their coordination.

**By the end of the third generation** the cats had developed degenerative diseases very early in life and some were born blind and weak and had a much shorter life span. Many of the third generation cats couldn't even produce offspring. There was an abundance of parasites and vermin while skin diseases and allergies increased from an incidence of five percent in normal cats to over 90 percent in the third generation of deficient cats. Kittens of the third generation did not survive six months. Bones became soft and pliable and the cats suffered from adverse personality changes. Males became docile while females became more aggressive. The cats suffered from most of the degenerative diseases encountered in human medicine and died out totally by the fourth generation.”

On a similar note, cats fed raw, unpasteurized milk were also healthier.

(\*Note: cats today are able to thrive on a cooked diet if the amino acid taurine is added to the food after it is cooked. At the time of Pottenger's study, this had not yet been known to be an essential amino acid for cats. You can Google “Pottenger's Cats” for more detailed information about his work)

Notice any similarities between the decline in the health of Pottenger's cats and the decline in human nutrition & health? The parallels between animal and human nutrition have been drawn in the work of many important health pioneers. From these studies, we can clearly see what's occurring in the human population. One key factor proven by these studies is when a healthy, unprocessed, natural diet in animals was reintroduced, it led to restoration of health. Likewise, a return to a pure and unprocessed diet for humans can produce similar results.

## Tony Stephan

Another health pioneer, Tony Stephan, came upon a link between animal and human nutrition because of a traumatic affliction that had been plaguing his family: mental illness. Increasingly, disorders of the nerve cells or neurons of the brain are being called [Neurological Brain Disorders \(NBD\)](#).

After losing his father-in-law and his beloved wife to suicide, he recognized the disease was also threatening the lives of his children. A conversation with a pig feed farmer was a light-bulb moment for Tony. The farmer explained that when nutrient ratios in the feed were “off” (imbalanced or depleted), the pigs would develop what is known as “swine tail/ear biting disease”.

Basically, swine would chew the ears off of other pigs or bite off their own tails, displaying violent and aggressive behaviors that came from being depleted in certain micronutrients. When the micronutrient ratios were balanced, the pigs again became calm and co-existed peacefully. From this information, Tony surmised that his children were also experiencing extreme micronutrient deficiencies. His determination to heal his family of the curse of mental illness drove him to create one of the highest quality micronutrient supplements available today. He tirelessly worked for more than two decades proving the link between nutrient deficiencies and mental disorders. His studies have been published in over 24 medical journals and the findings have led to the creation of the supplement Q96. You can learn more about this supplement at the [Q Sciences website](#) or purchase it through [Amazon](#).

Tony Stephan’s daughter, Autumn Stringam, wrote about the family’s history of mental illness in her memoir, [“A Promise of Hope”](#), in which she explained how the root cause of mental illness could be, and has been, successfully resolved in numerous documented cases by proper supplementation of micronutrients:

*“For many, the answer to rage, mood swings, and self-injurious behaviors lies in essential micronutrient supplementation.”*

Once again, we see the parallel between swine ear/tail biting syndrome and that of aggression, cutting, and self-mutilation in humans as one that is too blatant to ignore. Aside from mental illness, micronutrient supplementation has resolved a host of other health issues.

Rickets and Scurvy are the most common examples of diseases eliminated by micronutrient supplementation. Rickets is caused by a serious lack of Vitamin D and Scurvy by a deficiency in Vitamin C. Both were solved by getting adequate supplementation of the missing vitamins. What some may not realize is that micronutrient supplementation has also provided recovery and relief in the following:

Addiction, allergies, asthma, clumsiness (dyspraxia), cutting, skin picking, dental issues, digestion problems, early stages of dementia, general fatigue, memory issues, brain fog, ADD and ADHD, seizures, night terrors, multiple sclerosis, and Parkinson's disease. This is not even a full list as more ailments are being healed each day with a nutritive approach.

Personally, I've used Q96 to heal my body from a bio-toxin illness that robbed my normal appetite and made it nearly impossible to eat the amount of nutritious food required to deliver the optimum nutrients needed for healing, rebuilding, and detoxifying my body. Q96 has been a key component in my treatment, and I am eternally grateful for being led to it.

You're probably getting the picture by now. We have numerous diseases in our culture that can be healed with the nutritive approach but – just how many? Here is a partial list of over 900 diseases that can result from nutritional deficiencies from the research of Dr. Joel Wallach:

#### **DISEASE: PRIMARY NUTRIENTS MISSING**

- **Acne:** Essential fatty acids, Potassium, Vitamin A, Vitamin B-6, Zinc
- **ADD/ADHD:** Enzymes, Chromium, Vanadium
- **Arthritis:** Calcium, Copper, Boron, Essential fatty acids, Germanium, Vitamin B-6, Glucosamine & Chondroitin Sulfates
- **Birth Defects:** Folic acid, Magnesium, Vitamin A, Vitamin B-12, Zinc, Copper
- **Cancer:** Selenium, Germanium, Cesium, Antioxidants
- **Depression:** Biotin, Boron, Calcium, Chromium, Copper, Iodine, Iron, Lithium, B Complex, Zinc
- **Diabetes:** Chromium, Vanadium, Zinc
- **Eczema:** Boron, Calcium, Essential fatty acids, Inositol, Niacin, Vitamin B-5, Zinc
- **Gray Hair:** Copper
- **Infertility:** Chromium, Essential fatty acids, Lithium, Manganese, Selenium, Vanadium, Zinc, Cholesterol, Amino Acids
- **Memory Loss:** Folic acid, Niacin, Vitamin B-1, Zinc
- **Nervousness:** Calcium, Boron, Iodine, Magnesium, Potassium, B complex, Vitamin D
- **Osteoporosis:** Calcium, Boron, Germanium, Vitamin K, Magnesium
- **Receding Gums:** Calcium, Magnesium, Boron



- **Sexual Dysfunction:** Selenium, Zinc, Manganese, iodine, Cholesterol
- **Wrinkles:** Copper, Sulfur

## **Dr. Joel Wallach**

You might want to know a little more about the man responsible for the nutritional deficiencies chart above.

Dr. Joel Wallach (DVM, ND) is an agriculture expert, author, biomedical research pioneer, naturopathic physician, pathologist, and veterinarian. His textbook for veterinarians detailing the successful elimination of over 900 diseases in animals is now in the Smithsonian.

His research has shown that:

"The same strategies that work in animals, work like a charm in people".

"Every animal and every human that dies of natural causes, dies of a nutritional deficiency disease."

He also educates people about the positive effects of minerals and essential nutrients through lectures. His famous "Dead Doctors Don't Lie" lecture has had more than 150 million copies distributed worldwide. He is also the recipient of the 2011 Klaus Schwarz Commemorative Medal, given to pioneers in trace element research.

## **Dr. Terry Wahls**

Though typically not considered curable, multiple sclerosis is on the list of ailments healed by the nutritive approach. The most notable pioneer for healing this "incurable" disease is Dr. Terry Wahls.

In 2000, **Dr. Terry Wahls** was diagnosed with multiple sclerosis. After 7 years of the best drugs and care available to her she only declined in health, eventually becoming dependent on a tilt reclined wheelchair. Though she is an M.D. herself and had access to some of the best doctors across the country, conventional medical treatments were failing her. This prompted her to take a different course of action entirely.

She began to research the kinds of nutrients that are required for our mitochondria (the organelles that generate energy for the cell) to function properly. Think of her approach as providing the proper fuel for these tiny "power plants" (mitochondria) to operate.

Prior to her MS diagnosis, she treated patients with drugs or surgical procedures. For her own treatment, she decided to get her vitamins, minerals, antioxidants, and essential fatty acids

from the food she ate rather than pills and supplements. Her progress is described on her website:

“First, she walked slowly, then steadily, and then she biked eighteen miles in a single day. In November 2011, Dr. Wahls shared her remarkable recovery in a TEDx talk that immediately went viral.”

Her journey is an inspiration to others afflicted with autoimmune diseases to not give up hope, but to discover and try healing their bodies through proper nutrition. Dr. Wahls work is primarily inspired by: Functional Medicine, the Hunter-Gatherer diet, the Paleo diet.

## **Victoria Boutenko**

Last, but certainly not least in the lineup of health pioneers is Victoria Boutenko, the Queen of Green smoothies. Her book, [“Green for Life”](#), will change the way you think about food. In 1994, she and her family faced numerous health problems (juvenile diabetes, obesity, hyper thyroid, chronic fatigue, arrhythmia, arthritis, asthma, and allergies). She researched nutrition, changed the foods her family ate, and fully reversed their symptoms - regaining vibrant health.

Victoria has successfully addressed many chronic health issues through her discovery that some of the most nutrient rich foods on earth - bitter greens - could be enjoyably ingested by blending them with fruit to make them palatable. She has helped hundreds of thousands of people around the globe achieve their own health success stories - recovering from illnesses and diseases they were told by doctors there was no cure for. Now, she and her family teach others around the world how to do the same.

As an added bonus, green smoothies are one of the easiest ways to help your body kick the junk food and sugar addiction habit. Slowly but surely, powerful micronutrients satiate the brain, change the palate, and eradicate the urges.

A mention of Victoria Boutenko wouldn't be complete without sharing my personal testimonial. After the birth of my second child, I was left anemic and healed my body from iron deficiency anemia with only green smoothies. She's a personal hero of mine for her application of delivering micronutrients through delicious Green Smoothies. Thank you, Victoria Boutenko!

What inspired her work? Another human/animal connection! This explanation comes from her website:

“Seeking the perfect human diet, Victoria Boutenko studied the eating habits of wild chimpanzees. Chimpanzees share an estimated 99.4% of genes with humans, but their diet is dramatically different from ours. The most glaring difference is that chimpanzees consume significantly more green leaves than humans. They consume

these greens in conjunction with fruit. Based on these observations, Victoria perfected the basic green smoothie recipe: 60% fruit and 40% greens, blended with a little water. Green leafy vegetables contain amino acids, vitamins, essential fatty acids and minerals. The touch of sweetness in the fruit enables anyone to consume large amounts of greens in a delicious way. By blending leafy greens and fruit, the body can absorb these vital nutrients efficiently, without losing valuable fiber.”

## Summary

More and more doctors are discovering that the human body requires essential micronutrients for it to function optimally. The effects go beyond learning into moods, muscle coordination, and overall health. In fact, the answers to the vast majority of human health issues are found in our micronutrient levels.

The importance of micronutrients for the brain and body has been endorsed in psychology by Dr. Charles Popper of Harvard and validated in brain biology and neuro-immunology by the work of Dr. Terry Wahls. Nutritional treatment of chronic illness and disease has also been proven in the work of Dr. Joel Wallach, Dr. Weston Price, and Francis Pottenger, Jr.

I’m grateful for the tireless work of all of these health pioneers: Tony Stephan and his gift of Q96, Weston Price and Terry Wahls for bringing our attention back to Hunter-Gatherer diets, Dr. Joel Wallach, Francis Pottenger, Jr., and Victoria Boutenko for connecting the dots between human and animal health. They have all showed us many ways to deliver balanced micronutrients to the brain and body. The number of lives saved and bodies restored to health because of their research is beyond comprehension.

You can load your own diet and your child's diet with essential micronutrients through food, or you can supplement with a high quality micronutrient supplements such as Q96. Both have proven effective in healing the body and the brain, and have increased the ability to learn.

There are so many ways you can rebuild your health – PICK ONE! Your life is worth it. You deserve the best quality of life that you can possibly experience for your body, mind, and spirit. You have nothing to lose but brain fog, illness, disease, etc... and EVERYTHING to gain!

I would love to see my fellow human beings have health, vitality, and quality of life restored --- abundantly! My sincere wish is that through the restoration of a healthy, vital life force, we will once again be able to fulfill the measure of our creation on this earth.

Please, share this knowledge!

**"If you have knowledge, let others light their candles in it." - Margaret Fuller**

## Resources

### Tools for your health journey

Nutrient Dense Foods & Healthy Fats shopping guide:

<http://www.naturalgirldiary.com/nutrient-rich--healthy-fats-guide.html>

Dr. Terry Wahls – TED talk, diet plan, and book: <http://www.naturalgirldiary.com/dr-terry-wahls.html>

Q96: <http://qsciences.com/q-products/#empowerplus>

Autumn Stephan's book on recovering from Bipolar with micronutrients:  
[http://www.amazon.com/Promise-Hope-Astonishing-Afflicted-Miraculous-ebook/dp/B00563KRAO/ref=sr\\_1\\_1?ie=UTF8&qid=1397229924&sr=8-1&keywords=a+promise+of+hope](http://www.amazon.com/Promise-Hope-Astonishing-Afflicted-Miraculous-ebook/dp/B00563KRAO/ref=sr_1_1?ie=UTF8&qid=1397229924&sr=8-1&keywords=a+promise+of+hope)

Victoria Boutenko books, documentaries, and recipes:  
<http://www.naturalgirldiary.com/victoria-boutenko.html>