# ESSENTIAL VITAMIN/MINERAL & SUPPLEMENT GUIDE



# DAVE MOODY

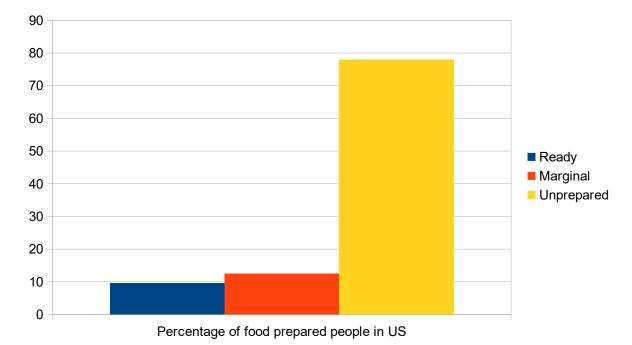
HOLISTIC Health & Fitness Tips

# **Essential Vitamin – Mineral and Supplements Guide**

# **Table of Contents**

Essential Vitamin – Mineral and Supplements Guide	1
Why food scarcity and low quality food is a concern	2
Why you should buy or make storable food	3
Why you should buy or make supplements	3
Storable Food Sources	4
Storable Food Suggestions & Options	4
Survival Supplements	5
Vitamins	6
Liquid Multi-Vitamins	
Vitamin A – DIY	
Vitamin B	
Choline	
Vitamin C	16
Vitamin D	
Vitamin E	
Minerals	
Liquid Mineral Supplements	
Fulvic Acid	
Calcium	
Phosphorus	
Sodium	
Electrolytes	
Potassium	
Magnesium	
Manganese	
Sulfur	
Chloride	
Iron	
Iodine	
Fluoride	
Zinc	
Copper	
Selenium	
Chromium	
Cobalt	
Protein Supplements	
Protein Powders.	
Alternative Protein Powder Options	
Meal Replacement Drinks/Powders	
Supplements Addendum	81

Supplements for Immunity	82
TMG	
R Alpha Lipoic Acid	84
Acetyl L Carnitine	85
Cod Liver Oil	86
Spirulina & Chlorella	
Oregano Oil	88
Ivermectin	92
Colloidal Silver	93
Summary	93



### Why food scarcity and low quality food is a concern

The food scarcity and low quality food issue is a concern for many people. Experts have warned that food shortages could become a problem by late 2022. The issue of food scarcity is a concern and should be a top priority for everyone. This report so much about storable food even though the top priority, but about the nutrients and vitamins that are essential for survival. Storable food may be low quality but may also become unavailable. Good preppers or those who have farms and gardens will be the most prepared. For those of us dependent on the food supply from stores, this could be the population that suffers the most.

We will delve into storable food suppliers and diy ideas to make and store your food. This, plus water are on the top of the list for sure.

# Why you should buy or make storable food

The fact of the matter is that we are under siege by the globalists and sellouts within our own government. It is a multi-pronged attack on the population to make us not only subservient but to kill us off as admitted in the WEF treaties and goals to reduce the world's population by 90 percent. This article is not about explaining this war against humanity and covered in other posts. We recommend doing your research on this life-threatening movement already in full swing. Our premise is to explore ways to survive the eminent threat of starvation. Over 50 food storage facilities have been burned down. Millions and millions of poultry have been destroyed. Tens of thousands of cattle have mysteriously died. There is a fertilizer shortage. Fuel prices have skyrocketed and diesel oil for maintain all the commercial methods of delivery has run out. Energy blackouts have been openly predicted by government.

We are at the precipice of Armageddon and many experts believe that disasters are planned before the 2022 midterms to distract and or stop the election process. Regardless, now is the time to prepare more than ever!

Prepping with storable food is a top priority however, essential vitamins, minerals and other supplements are critical. Storable food may be low nutrition but also run out. Supplements could save your life.

As a self professed supplement "junkie", I know the value of supplementation, especially with our low nutrition food today. I grew up in the 50s and 60s when food was virtually free from chemicals and hormones, etc. Soil was rich with nutrients and exponentially higher in iodine, magnesium, potassium and many other elements essential for life.

There are many uninformed doctors and nutritionists still claiming that we can get all our nutrients from food and supplementation is worthless. This is simply ignorance and not keeping up with research on the subject. The same goes for all the drug and vax pushing doctors that are clueless on holistic health remedies and nutrition. I have heard that nutrition is covered in less than a week of study for medical students.

I will break down the essential and most important supplements along with protein sources for your survival supply. I believe this article is extremely important for prepping survival and mostly overlooked by the prepping community.

## Why you should buy or make supplements

As mentioned, storable food may be low nutrition but also run out. Supplements could save your life. To expand on these statements, here are some great reasons to prep with supplements. Storage container size. Think about how many supplements you can store in a small space or carry in a bug out bag?! This option alone could be life saving.

Between the essential vitamins and minerals and other life saving supplements that will be covered. The weight will be extremely low compared to buckets of food. The most weight will be in protein powders and a one lb bag of protein powder can last one month or more! Think about having a year of protein powder, and all your supplements in well under 20 lbs!

During WWII and other emergency food shortage situations, the go to food has been things like bulgur wheat and other grains and beans. Yes, you can survive on these foods but they are mostly incomplete proteins plus lacking in many essential nutrients!

Let's think of the early sailors before they were aware of vitamin C and suffered from scurvy. It became so bad that many died. They had grains and fish so one might think that starvation was impossible. Most were confused thinking that there was enough food so why were these sailors wasting away and dying? Lack of nutrients and in this case, vitamin C!

The British nave eventually figured out that making a "grog" with limes solved the issue of vitamin C. Hence, the name limey was coined for the Brits on eating limes.

Do you see how just one essential element can make the difference between life and death? Maybe if you are young and exceptionally hearty, you can make it long term on a limited diet that is nutritionally deficient but I would never count on it! I would not make it for more than 6 months if I had to eat a grain only diet! Many like me, have gene mutations or polymorphisms that make absorption of nutrient difficult already so a high nutrient diet is critically important.

My take is of course try to stock up on high nutrient food but supercharge your chances by stocking up on supplements by making them or buying them in advance!

# **Storable Food Sources**

As mentioned from the start, storable food along with water are the top priorities. We have listed a few sources below that should help you. This subject is critical for survival but not our main focus for this report. One issue that food will serve beyond the nutrition is the caloric requirements humans have. This is one area supplements alone fall short however they will allow people to thrive when coupled with a protein source.

Some of the listed options for storable food are of high quality and can be rather expensive. Other options may not be highly nutritious but provide reasonable calories.

The decision should be based on ability to pay for the highest grade foods possible and weigh your options. In the event you are on a small budget, consider options that provide sufficient calories and focus more on supplements.

Either way, even the top choices will fall short on total nutrition making supplements essential in the prepping equation.

Again, if you are not limited on resources, we suggest buying the best and longest term storable food options available and follow our supplement options fully listed later in article. Click the images to be directed to sources-

#### **Storable Food Suggestions & Options**







<u>Number one source</u> for survival food, water filters, cooking supplies, coffee and more! This source is reliable and supports patriots! Most importantly, they are reliable and will not take your money unless they have item in stock! <u>Prepare Today</u>

#### **Survival Supplements**

We now get into the point of this article on supplementing essential vitamins and minerals. Hopefully, you have addressed the food and water prepping first and can now focus on this incredibly important adjunct for survival.

Before moving on, checkout the following articles on our site <u>https://holistichealthandfitnesstips.com/supply-chain-collapse/</u><u>https://holistichealthandfitnesstips.com/financial-survival/</u>

#### The following are essential supplements for survival.

- Vitamins
- Minerals
- Protein
- Amino Acids
- Essential Supplements
- Pharmaceuticals

# Vitamins

Before getting into specifics, it is important to consider long term storage and how to keep your supplements fresh. Most supplements ship with at least one year and more often a two year or more expiration date.

This is somewhat random but the important thing to consider is storage in a cool, dark place and to keep containers air tight. Once opened, the shelf life, potency, can drop quickly. Keeping bottles unopened until needed is the simplest but for our purpose of survival prep, we may be storing large amounts or diy versions.

There are 14 essential vitamins that we are required for survival. Many people are oblivious to this and as we discussed, think that food will supply all of these needs in the quantity required. Depending again on your survival food on hand, this fact becomes more important than ever!

Here are the essentials: Biotin, choline, folate, niacin, pantothenic acid, riboflavin, thiamin, and vitamins A, B6, B12, C, D, E, and K.

You might say that all that's needed is a multi-vitamin and chances are, you would be wrong. There are a few we will list that come pretty close to meeting your needs but we prefer approaching each vitamin individually if at all possible.

If you feel that your food supply is very high in nutrients, a high grade multi may get you by but when all hell breaks loose and you need to go above and beyond the baseline requirement, having individual supplements will be superior.

<u>NATURELO Whole Food Multivitamin for Men - with Vitamins, Minerals,</u> <u>Organic Herbal Extracts - Vegetarian - for Energy, Brain, Heart, Eye Health -</u> <u>120 Vegan Capsules</u>



# Supplement Facts

Serving Size: 4 Capsules Servings Per Container: 30

Amount Per Serving		%DV	Amount Per Serving	%	D٧
Vitamin A (as Natural Beta Carotene from Blakeslea Trispora)	1000 mcg RAE	111%	Organic Fruit & Vegetable Blend 200 Organic Beet (Root), Organic Carrot	mg	
Vitamin C (from L-Ascorbate and Organic Acerola Cherry Extract)	180 mg	200%	(Root), Organic Black Currant (Leaves), Organic Blueberry (Berry), Organic		
Vitamin D3 (as Plant-based Cholecalciferol from Wild-harvested Lichen)	25 mcg (1,000 IU)	125%	Broccoli (Stem & Floret), Organic Cranberry Extract (Fruit), Organic Kale		
Vitamin E (from d-Alpha Tocopheryl from Sunflower)	22 mg alpha tocopherol	147%	(Whole Plant), Organic Pomegranate (Whole Fruit Juice), Organic Raspberry (Berry), Organic Spinach (Leaf & Stalk)		
Vitamin K2 (as Menaquinone MK-7)	120 mcg	100%			
Vitamin B1 (from Thiamine HCI)	3 mg	250%	Digestive Enzyme & Probiotic Blend* 120 Protease (to break down protein),	ng	
Vitamin B2 (Riboflavin)	3 mg		Amylase (to break down protein),		
Vitamin B3 (as Niacinamide)	20 mg NE	125%	(to break down fats), B. breve, L. reuteri		
Vitamin B6 (from Pyridoxal-5-Phosphate)	4 mg	and the second se	Energy Blend* 100	ma	
Folate (as Active L-5-Methylfolate) 40	00 mcg DFE	100%	Organic Maca (Root), Organic Decaf		
Vitamin B12 (as Methylcobalamin)	6 mcg	250%	Green Tea (Leaf), Organic Panax		
Biotin (as D-Biotin)	150 mcg	500%	Ginseng Extract (Dried Root),		
Vitamin B5 (from d-Calcium Pantothenate)	9 mg	180%	Co-Enzyme Q10 (Ubidecarenone)		
Calcium (from Dicalcium Phosphate and Aquamin® from Marine Algae)	190 mg	15%	Brain Health Blend* 60 Organic Ginkgo biloba (Leaf),	mg	••
Phosphorous (from Dicalcium Phosphate)	125 mg	10%	Organic Ginger (Root), Inositol,		
Iodine (from Wild, Hand-harvested Kelp)	150 mcg	100%	Boron (from Boron Citrate)		
Magnesium (as Aquamin®Magnesium from Marine Algae)	300 mg	71%	Heart Health Blend* 50 Organic Turmeric (Root), Organic Ceylon Cinnamon (Bark),	mg	
Zinc (from Zinc Amino Acid Chelate)	11 mg	100%	Organic Grape Extract (Seed),		
Selenium (as Selenium Glycinate) (Albion™)	55 mcg	100%	Organic Resveratrol (from Knotweed)(Root)		
Copper (as Copper Aminomin)	0.9 mg	100%	Eye Health Blend* 15	ma	
Manganese (as Manganese Sulfate)	2.3 mg	100%	Rutin (from Sophora japonica)(Bud),	ny	
Chromium (from Chromium Picolinate)	35 mcg	100%	Lycopene, Lutein (from Marigold flowers),		
Molybdenum (as Molybdenum Krebs Complex)	45 mcg	100%	Zeaxanthin (from Marigold flowers)		
Potassium (from Potassium Chloride)	75 mg	2%	**Daily Value (DV) not established.		

Whole food multi vitamin with the full spectrum of active forms of B along with many other great herbs, minerals and enzymes. The only drawback is minimal RDA amounts. An excellent choice if you are getting a full spectrum diet and have no genetic mutations and absorb nutrition well. Older folks may need more than this can deliver along with those with polymorphisms.

I have tried this brand before and recommend for those who either aren't interested in going the singular supplement route or have great stomach acid and absorption and have no autoimmune or other health issues. In addition, I was using as a core multi to cover the bases and supplemented in addition to this. For instance, the zinc level is 11 mg and most of us need at least double to triple this amount daily. I take a minimum of 50mg per day. You get the idea and if your diet is or becomes compromised, you will need more than this can deliver.

<u>NATURELO Whole Food Multivitamin for Women - with Vitamins, Minerals, & Organic Extracts -</u> <u>Supplement for Energy and Heart Health - Vegan - Non GMO - 120 Capsules</u>



#### Liquid Multi-Vitamins

<u>2 Pack! Super Multi Liquid Vitamin 32 Fl. Oz. - 1 Month Supply Each- High Potency - Sugar</u> <u>Free - Iron Free - MTHFR Friendly- Liquid Multivitamin with Ionic Fulvic Minerals, by Vital</u> <u>Earth Minerals</u>



Total Fat       0       (Aloe Vera Juice, Green Coffee         Total Carbohydrates       0g       0%         Total Sugars       0g       0%         Vitamin A (as 5,000 IU beta carotene)**       1500 mog RAE 167%       Green Tea Extract, Camu Camu Concentrate, Acerola Extract, Camu Camu Concentrate, Biocooli Concentrate, Acerola Extract, Camu Camu Concentrate, Turmeric Concentrate, Camo Concentrate, Concentrate, Biolone (trainin HCL)(vitamin B1)**       3 mg 250%         Niacin (niacinamide)(Vit B3)**       20 mg NE 125%       Concentrate, Biackcurrant Extract, Blueberry Extract, Sweet Cherry Concentrate, Biackberry Concentrate, Camo Concentrate, Biackberry Concentrate, Concentrate, Blueberry Extract, Spinach Concentrate, Blueberry Extract, Spinach Concentrate, Concentrate, Blueberry Extract, Biolerry Extract, Blueberry Extract, Blueber	Suppleme	nt Facts	5	Amount Per Serving % Daily Value*
Amount Per Serving % Daily Value*         Calories       2         Total Fat       0         Total Carbohydrates       0g         Total Sugars       0g         Vitamin A (as 5,000 IU beta carotene)**       1500 mog RAE 167%         Vitamin C (ascorbic acid)(tapioca/cassava)**       400 mg       444%         Vitamin B (d-alpha tocopherol acetate)**       20 mg       133%         Vitamin B (d-alpha tocopherol acetate)**       20 mg       133%         (from non-GMO sunflower oil)       3.5 mg       269%         Thiacin (hiacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B 2)**       3.5 mg       269%         Niacin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B 12       4 mg       235%         Vitamin B 12       4 mg       235%         Vitamin B 12       1 mg       6%         Vitamin B 12       1 mg       <	Serving Size: 1 fl.oz. (30 m Servings Per Container 32	ıl)		Fulvic Acid Complex 9 mg +
Calories       2         Total Fat       0         Total Carbohydrates       0g         Total Sugars       0g         Vitamin A (as 5,000 IU beta carotene)**       1500 mog RAE 167%         Vitamin D3 (cholecalciferol)**       25 mog         Vitamin E (d-alpha tocopherol acetate)**       20 mg         Nitamin (thiamin HCL)(vitamin B1)**       3 mg         Riboflavin (vitamin B2)**       3.5 mg         Niacin (niacinamide)(Vit B3)**       20 mg NE         Pyridoxal-5 phosphate (Vitamin B-6)       .1 mg         Pyridoxal-5 phosphate (Vitamin B-6)       .1 mg         Pindoxal-5 phosphate (Vitamin B-6)       .1 mg         Vitamin B12 (methylcobalamin)**       300 mcg         Pantothenic Acid (d-calcium pantothenate)(85)** 21 mg       420%         Choline (bitartrate)       30 mg         Zinc (picolinate)       5 mg       45%         Kaleganamese (manganese bisglycinate chelate)**       200 mcg       571%         Choomium (chromium polynicotinate)**       200 mcg       571%         Cholate (from organic spinach)(B9)       400 mcg org       71%         Vitamin K2 (MK7)       80 mcg       41%       200%         Vitamin B12       5 mg       45%       21%			Daily Value*	trace elements naturally occurring
Total Carbohydrates       0g       0%         Total Sugars       0g         Vitamin A (as 5,000 IU beta carotene)** 1500 mcg RAE 167%       Green Tea Extract, Onion Extract, Apple Extract, Acerola Extract, Camu Camu Concentrate, Quercetin, Tomato Concentrate, Roccoli Concentrate, Aca Concentrate, Bilocroli Concentrate, Basil Concentrate, Aca Concentrate, Basil Concentrate, Concentrate, Elderberry Concentrate, Concentrate, Blackburry Concentrate, Bloor Mangosteen Concentrate, Blackburry Extract, Blackburry Concentrate, Blackburry Concentrate, Blackburry Extract, Blackburry Extract, Blackburry Extract, Blackburry Concentrate, Blackburry Concentrate, Blackburry Extract, Blackburry Extract, Blackburry Extract, Blackburry Extract, Blackburry Extract, Blackburry Concentrate, Blackburry Extract, Blackburry Extract,	Calories			Fruit and Greens Blend 100 mg +
Total Sugars       0g         Vitamin A (as 5,000 IU beta carotene)**       1500 mog RAE 167%         Vitamin D3 (cholecalciferol)**       25 mog 125%         Vitamin E (d-alpha tocopherol acetate)**       20 mg 133%         Concentrate, Basil Concentrate, Carrot Concentrate, Basil Concentrate, Mangosteen Concentrate, Blackberry Concentrate, Spinach Concentrate				
Total Sugars       Ug         Vitamin A (as 5,000 IU beta carotene)**       1500 mcg RAE 167%         Vitamin C (ascorbic acid)(tapioca/cassava)**       400 mg       444%         Vitamin D3 (cholecalciferol)**       25 mcg       125%         Vitamin E (d-alpha tocopherol acetate)**       20 mg       133%         (from non-GMO sunflower oil)       Concentrate, Spinach Concentrate, Blackberry Concentrate, Blackberry Concentrate, Raspberry Concentrate, Spinach Concentrate, Raspberry Concentrate, Spinach Concentrate, Raspberry Concentrate, Spinach Concentrate, Bilotin**         Nitamin B12 (methylcobalamin)**       300 mcg       1000%         Vitamin B12 (methylcobalamin)**       300 mg       5%         Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mcg       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Kale (from organic spinach)(B9)       400 mcg DFE       100%			0%	
Vitamin A (as 5,000 IU beta carotene)** 1500 mog RAE 167%       Concentrate, Broccoli Concentrate, Aca         Vitamin C (ascorbic acid)(tapioca/cassava)** 400 mg 444%       Concentrate, Turmeric Concentrate,         Vitamin D3 (cholecalciferol)**       25 mcg 125%         Vitamin K (d-alpha tocopherol acetate)**       20 mg 133%         Thiamin (thiamin HCL)(vitamin B1)**       3 mg 250%         Riboflavin (vitamin B2)**       3.5 mg 269%         Niacin (niacinamide)(Vit B3)**       20 mg NE 125%         Vitamin B6       4 mg 235%         (pridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Biosphate)**         Concentrate, Spinach Concentrate, Raspberry Concentrate, Bilberry Extract, Bulleberry Extract, Bilberry Extract, Sinach Concentrate, Kale Concentrate, Bilberry Extract, Spinach Concentrate, Kale Concentrate, Bilberry Extract, Suberry Concentrate, Kale Concentrate, Bilberry Extract, Suberry Extra	Total Sugars	Og		
Vitamin C (ascorbic acid)(tapioca/cassava)** 400 mg       444%         Vitamin D3 (cholecalciferol)**       25 mcg       125%         Vitamin E (d-alpha tocopherol acetate)**       20 mg       133%         (from non-GMO sunflower oil)       0 mg       133%         Thiamin (thiamin HCL)(vitamin B1)**       3 mg       250%         Riboflavin (vitamin B2)**       3.5 mg       269%         Niacin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       81 mg       600 concentrate, Spinach Concentrate, Spinach Concentrate, Spinach Concentrate, Spinach Concentrate, Bilderberry Concentrate, Chokeberry Concentrate, Bilderbyr Extract, Bueberry Extract, Buselerry Concentrate, Spinach Con		1500	4070/	
Vitamin D3 (cholecalciferol)**       25 mcg       125%         Vitamin E (d-alpha tocopherol acetate)**       20 mg       133%         (from non-GMO sunflower oil)       133%       Oregano Concentrate, Cinnamon Concentrate, Iderberry Concentrate, Mangosteen Concentrate, Blackcurrant Extract, Blueberry Extract, Sweet Cherry Concentrate, Raspberry Concentrate, Blackberry Concentrate, Raspberry Concentrate, Raspberry Concentrate, Blackberry Concentrate, Raspberry Concentrate, Blackberry Concentrate, Raspberry Concentrate, Bloth**         Niacin (niacinamide)(Vit B3)**       20 mg NE       250%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Chokeberry Concentrate, Blackberry Concentrate, Raspberry Concentrate, Bilberry Extract, Bursels Sprout Concentrate, Bilberry Extract, Bluesels Sprout Concentrate, Bloth**         Pantothenic Acid (d-calcium pantothenate) (85)** 21 mg       420%         Chromium (glycinate chelate)**       70 mog       127%         Manganese (manganese biglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Kole (from organic spinach)(B9)       400 mcg DFE       100%         Vitamin K2 (MK7)       80 mcg       4         Nositol       30 mg       71%				
Vitamin E (d-alpha tocopherol acetate)**       20 mg       133%       Oregano Concentrate, Cinnamon         (from non-GMO sunflower oil)       133%       Oregano Concentrate, Cinnamon         Thiamin (thiamin HCL)(vitamin B1)**       3 mg       250%         Riboflavin (vitamin B2)**       3.5 mg       269%         Niacin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Concentrate, Blackcurrant Extract, Blueberry Extract, Babery Concentrate, Raspberry         Vitamin B12 (methylcobalarin)**       300 mcg       1000%         Biotin**       300 mcg       1000%         Pantothenic Acid (d-calcium pantothenate) (B5)** 21 mg       420%         Vitamin Glycinate chelate)**       70 mcg       127%         Chromium (chromium polynicotinate)**       200 mcg       571%         Selenium (glycinate chelate)**       70 mcg       127%         Vitamin K2 (MK7)       80 mcg       *         Vitamin K2 (MK7)       80 mcg       70.0%         Vitamin K2 (MK7)       30 mg       *         Potastiun       Greentrate       2.000 calorie diet         ** High Potency       *       *         Vitamin K2 (MK7)       80		ca/cassava)** 400 mg		
(from non-GMO sunflower oil)       Concentrate, Elderberry Concentrate, Carrot Concentrate, Mangosteen Concentrate, Blackcurrant Extract, Blueberry Extract, Sweet Cherry         Riboflavin (vitamin B2)**       3.5 mg       269%         Niacin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Concentrate, Blackberry Concentrate, Raspberry Concentrate, Blackberry Concentrate, Chokeberry Concentrate, Blackberry Concentrate, Chokeberry Concentrate, Blackberry Concentrate, Blackberry Concentrate, Blackberry Concentrate, Chokeberry Concentrate, Blackberry Extract, Spinach Concentrate, Blackberry Extract, State Concentrate, Blackberry Extract, Spinach Concentrate, Blackberry Concentrate, Blackberry Concentrate, Blackberry Extract, Spinach Concentrate, Blackberry Extract, Spinach Concentrate, Blackberry Extract, Spinach Concentrate, Chokeberry Extract, Spinach Concentrate, Blackberry Extract, Spinach Concentrate, Chokeberry Extract, Spinach Concentrate, Blackberry Extract, Spinach C		25 mcg		
Carrot Concentrate, Mangosteen Concentrate, Blackberry Concentrate, Blackbery Concentrate, Blackberry Concentrate, Blackberry			133%	
Iniamin (mainin HCL)(vitamin B1)**       3 mg       250%         Riboflavin (vitamin B2)**       3.5 mg       260%         Riboflavin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Chokeberry Concentrate, Raspberry         Pyridoxal-5 phosphate (Vitamin B-6)       .1 mg       6%         Vitamin B12 (methylcobalamin)**       300 mcg       12,50%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Choline (bitartrate)       30 mg       5%         Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mog       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Vitamin K2 (MK7)       80 mcg       40%         Vitamin K2 (MK7)       80 mcg       40%         Nathan Gum, Potassium Sorbate, Potassium Citrate (less than 1/10th of       70%			0500	
Niacin (niacinamide)(Vit B3)**       20 mg NE       125%         Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Concentrate, Blackberry Concentrate, Raspberry Concentrate, Spinach				
Vitamin B6       4 mg       235%         (pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Chokeberry Concentrate, Raspberry Concentrate, Spinach Concentrate, Spi				Blueberry Extract, Sweet Cherry
(pyridoxine hydrochloride and P5P-pyridoxal 5 phosphate)**       Concentrate, Spinach Concentrate, Kale Concentrate, Bilberry Extract, Brussels Sprout Concentrate, Bilberry Extract, Brussels Sprout Concentrate)         Biotin**       300 mcg       1000%         Biotin**       300 mcg       1000%         Pantothenic Acid (d-calcium pantothenate) (B5)** 21 mg       420%         Choline (bitartrate)       30 mg       5%         Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mcg       127%         Manganese (manganese biglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Vitamin K2 (MK7)       80 mcg       400 mcg oFE         Vitamin K2 (MK7)       80 mcg       400 mcg oFE         Nositol       30 mg       +				
Pyridoxal-5 phosphate (Vitamin B-6)       1 mg       6%         Vitamin B12 (methylcobalamin)**       300 mcg       12,500%         Biotin**       300 mcg       1000%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Vitamin B12 (methylcobalamin)**       300 mcg       1000%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Vitamin B12 (methylcobalamin)**       30 mg       5%         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%         Vitamin Cpicolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mcg       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Folate (from organic spinach)(B9)       400 mcg pFE       100%         Vitamin K2 (MK7)       80 mcg       +         Nositol       30 mg       +				
Vitamin B12 (methylcobalamin)**       300 mcg       12,500%       Brussels Sprout Concentrate)         Biotin**       300 mcg       1000%       Microencapsulated and Fermented         Pantothenic Acid (d-calcium pantothenate) (B5)**       21 mg       420%       Vegan Amino Acid Blend       100 mg +         Choline (bitartrate)       30 mg       5%       420%       Vegan Amino Acid Blend       100 mg +         Zinc (picolinate)       5 mg       45%       on a 2,000 calorie diet       *         Selenium (glycinate chelate)**       70 mcg       127%       on a 2,000 calorie diet       *         Manganese (manganese bisglycinate chelate)       2 mg       87%       *       High Potency         Chromium (chromium polynicotinate)**       200 mcg       571%       Other ingredients: Purified Water (Reverse Osmosis), Natural Flavor, Organic Stevia Leaf extract (Reb A), Xanthan Gum, Potassium Sorbate, Potassium Citrate (less than 1/10th et al.)	Duridoval 5 phosphate (V/ta	min B 6) 1 mg	nate)	
Biotin**       300 mcg       1000%         Pantothenic Acid (d-calcium pantothenate) (B5)** 21 mg       420%       Microencapsulated and Fermented         Choline (bitartrate)       30 mg       5%       + Daily Value not established         Zinc (picolinate)       5 mg       45%       - Daily Values are based         Selenium (glycinate chelate)**       70 mcg       127%       - on a 2,000 calorie diet         Manganese (manganese bisglycinate chelate)       2 mg       87%       - High Potency         Chromium (chromium polynicotinate)**       200 mcg       571%       - Other ingredients: Purified Water (Reverse Osmosis), Natural Flavor, Organic Stevia Leaf extract (Reb A), Xanthan Gum, Potassium Sorbate, Potassium Citrate (less than 1/10th of the section of the section and the sec				
Pantothenic Acid (d-calcium pantothenate) (B5)** 21 mg       420%         Choline (bitartrate)       30 mg       5%         Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mog       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Folate (from organic spinach)(B9)       400 mcg oFE       100%         Vitamin K2 (MK7)       80 mcg       +         Nositol       30 mg       +				
Choline (bitartrate)       30 mg       5%         Zinc (picolinate)       5 mg       45%         Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mcg       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Folate (from organic spinach)(B9)       400 mcg pre       100%         Vitamin K2 (MK7)       80 mcg       +         Nositol       30 mg       +				
Zinc (picolinate)       5 mg       45%         Selenium (glycinate chelate)**       70 mog       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Vitamin K2 (MK7)       80 mcg       +         Nositol       30 mg       +		30 mg		
Selenium (glycinate chelate)**       70 mcg       127%         Manganese (manganese bisglycinate chelate)       2 mg       87%         Chromium (chromium polynicotinate)**       200 mcg       571%         Folate (from organic spinach)(B9)       400 mcg ore       100%         Vitamin K2 (MK7)       80 mcg       +         Nositol       30 mg       +				
Wanganese (manganese bisglycinate chelate)       2 mg       87%       ** High Potency         Chromium (chromium polynicotinate)**       200 mcg       571%       Other ingredients: Purified Water (Reverse Osmosis), Natural Flavor, Organic Stevia Leaf extract (Reb A), Xitamin K2 (MK7)         Noticol       30 mg       +				
Chromium (chromium polynicotinate)** 200 mcg         571%         Other ingredients: Purified Water (Reverse Osmosis), Natural Flavor, Organic stevia Leaf extract (Reb A), Xanthan Gum, Potassium Sorbate, Potassium Citrate (less than 1/10th of the construction)				** High Potency
Folate (from organic spinach)(B9)     400 mcg ore     100%       Vitamin K2 (MK7)     80 mcg +     Organic Stevia Leaf extract (Reb A), Xanthan Gum, Potassium Sorbate, Potassium Citrate (less than 1/10th citrate)				
Vitamin K2 (MK7) 80 mcg + Inositol 30 mg + Potassium Citrate (less than 1/10th of			the second s	(Reverse Osmosis), Natural Flavor,
nositol 30 mg + Potassium Citrate (less than 1/10th c			and the second se	Organic Stevia Leaf extract (Reb A),
	Boron (glycinate chelate)	1 mg	+	1% to preserve freshness)

The following suggestions are from my regimen directly. Believe it or not, I actually take all of these and believe that you should too! After years of research and trial and error, I have found that this collection of supplements is the answer for me. I am a senior citizen and as mentioned, have several gene mutations that make assimilation of nutrients more challenging.

For the purpose of survival prepping, I suggest that you use seal able bags when creating your own capsules or storing powders in large quantities. The existing bottles or bags shipped from the manufacturers are sufficient otherwise.

You may notice that the majority of supplements are from manufacturers and pre-formulated. The links below are from my methods on how to make your own supplements. I definitely still believe in making your own when it makes sense and saves you money. The majority of my regimen are still store bought simply because they are more cost effective. I compare apples to apples and decide. Many of the manufactured supplements offer multiple forms in their formulas such as magnesium for example that are less costly when you buy from them. On the other hand, for prepping, it does make sense to buy in bulk so don't discount this either. You can buy in bulk from Bulk Supplements in bags as large as 11 lbs. You could buy several types of magnesium for instance and combine them into your own capsules and save some money.

It really boils down to how you wish to approach it and how much you can invest. I don't have the answer for everyone but if you have a safe place and storage space, keeping large bags of this raw compounds may be the way to go for you. It might be better for the long term to go bulk if you have upwards of a thousand dollars or more to invest. If you have less than \$500 to budget, I suggest going mostly prepackaged supplements.

With this said, I strongly suggest making your own liver capsules regardless as you will save lots of money in small or large quantities. The following links show you how to dehydrate and make your own supplements.

#### Vitamin A – DIY

#### **Beef Liver and How to DIY Liver Capsules**



We also strongly suggest using the techniques covered to DIY jerky!

#### **Empty Capsules and Equipment to DIY supplements**



Liver is my top recommendation above all with its extreme levels of B vitamins and A amonst several

others and even a little vitamin C! Its heme iron is the most absorbable form and covers our vitamin A section all by itself! You simply do not need to supplement any further if you take or eat liver!

#### Vitamin B

Lets delve into the water soluble vitamin B next. As you may well know, there are several B variations that make up the B complex and all are essential. Buying a high quality, active form B complex is the easiest way to go. Once again, you can buy several forms in bulk powder from Bulk Supplements. I will list the manufactured forms I take and recommend below.

<u>Vitamin B Complex with Vitamin C for Maximum Absorption - Methylcobalamin b12 & Folate Folic</u> <u>Acid Supplement - Vitamins B1 B2 B3 B5 B6 B7 B9 for Immune Energy & Nervous System Support - Non-GMO -60ct</u>



Nature's Bounty Niacin 500mg Flush Free, Cellular Energy Support, Supports Nervous System Health, <u>120 Capsules</u>



Nutricost Biotin (Vitamin B7) 10,000mcg (10mg), 240 Capsules - Vegetarian Friendly, Gluten Free, Non-GMO



BioActive B12 Full Spectrum (Sublingual Liquid) 90-Day Supply: 4,000 mcg (in 4 Drops a Day) – 3 Best Forms: Hydroxy-, Adenosyl- & Methylcobalamin | Vegan | Non GMO | Lab Tested | 0.5 FL Oz



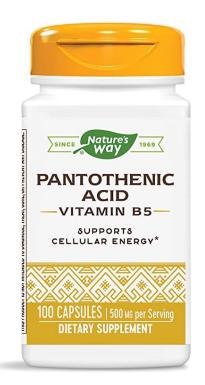
<u>Amazing Formulas Riboflavin Dietary Supplement 400 Milligrams 120 Capsules (Non-GMO,Gluten Free) - Promotes Healthier Blood , Nervous System, Boost Energy and Metabolism</u>



Benfotiamine 300mg | 90 Capsules | Fat Soluble Vitamin B-1 | Non-GMO, Gluten Free | by Carlyle



Nature's Way Pantothenic Acid, Capsules, 500 mg per serving, 100-Count



#### Orotic Acid

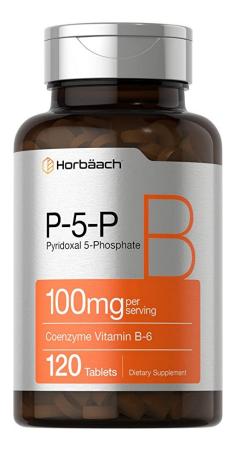
#### BulkSupplements.com Orotic Acid Powder (250 Grams - 8.8 oz)

Vitamin B13 – the super delivery additive for ultimate nutrient absorption and activating other B vitamins!



#### B6 Active

P5P Activated Vitamin B6 100mg | 120 Tablets | Vegetarian Supplement, Non-GMO, Gluten Free | Pyridoxal 5 Phosphate | Coenzyme B6 | by Horbaach



This concludes the B vitamin section. Yes, I take all of these including the B complex. It might be a little overkill but there is no harm as you will only pee out the amount you don[t use. Being water soluble makes it safe for high dose. If I happen to eat a pork tenderloin or liver, I will not take all the extra individual versions on that day and only the B complex. Pork tenderloin and liver are very high in B vitamins and a great way to consume meat that is low fat.

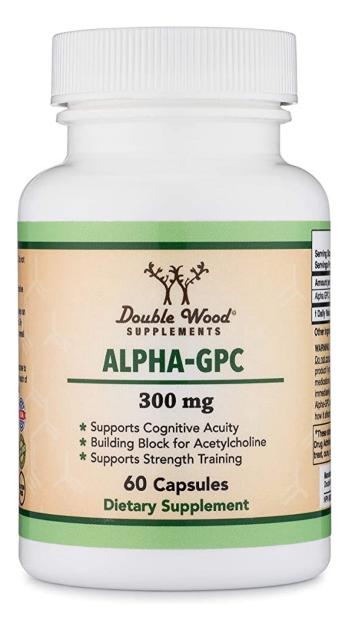
These have been my favorites that I personally use. You will notice that all of them are the active versions for the ultimate in absorption. If you are a senior or a person with MTHFR, you will want to up your vitamin B intake tremendously.

Like vitamin D, I wound up tripling my B intake and finally felt the difference! At 68 years old, my hair looks like it did when I was 25 but with better style:) An interesting gauge that I have found are things like hair, skin and less important issues that I may have had for decades including sun spots.

Once I got my nutrient levels optimized like the Bs and others to follow, I began reversing the aging! I have long lustrous hair, skin and nails are smooth and the age spots appearing at my temples have disappeared! Please continue to vitamin C now!

#### Choline

<u>Alpha GPC Choline Capsules - 60 Count, 600mg Servings – Brain Support Aid that Supports</u> <u>Focus, Memory, Motivation, and Energy - (Made in the USA) Brain Support Supplement by</u> <u>Double Wood Supplements</u>



L-Alpha glycerylphosphorylcholine is a natural choline compound found in the brain. It is also a parasympathomimetic acetylcholine precursor which has been investigated for its potential for the treatment of Alzheimer's disease and other dementias. <u>Wikipedia</u>

Keeping your wits about you especially in difficult situations is everything. Alpha GPC is a form of choline that I take for staying sharp and focused. It is being touted for staving off Alzheimer's and strokes. A definite must in prepping for trying times!

#### Vitamin C

Not only essential but critically important for so many bodily functions. Vitamin C is also a cofactor to many other vitamins and minerals that helps them function better. It is of course known mainly these days as an antioxidant which is true. As with so many other fruits and vegetables, the potency has severely dwindled in the past fifty years. Dr. Linus Pauling won the Nobel Prize for his revelations on vitamin C and it's high dose usage. Just like so many other nutrients, we found out the taking high doses of C flushes out toxins and has been proven to shorten the length of colds. I call it the natural chemotherapy of vitamins.

This is one of those you should consider buying in bulk. The taste of ascorbic acid is tangy and is nearly unnoticeable in some drinks. There is a bit of controversy about calling ascorbic acid vitamin C. Many detractors say to only consume natural forms of C and that ascorbic acid is an incomplete form. They say that C supplements should include natural flavinoids like rose hips, acerola cherry and other natural forms of C.

I tend to disagree but do believe that natural forms aren't a bad thing. My routine is to consume an orange or other citrus for the natural C and supplement mostly with ascorbic acid. The theory is that the natural forms are more beneficial but they are generally in very small dose. With ascorbic acid, we can high dose easily and it's far less costly.

I will include some of the natural forms I have used along with the ascorbic acid forms in this section. The important takeaway is to take C daily and in decent quantity for ultimate health!

Natural Liposomal Vitamin C - 1700mg, 200 Capsules, Immune System & Collagen Booster, High Absorption Fat Soluble VIT C, Buffered, Skin Vitamins, Anti Inflammatory, Sunflower Lecithin



<u>Pure Synergy Pure Radiance C | 90 Capsules | Certified Organic | Non-GMO | Vegan | 100% Natural</u> <u>Vitamin C with Organic Camu Camu Extract</u>



BulkSupplements.com Vitamin C Powder - Ascorbic Acid Powder - Vitamin C Powder for Clear Skin - Vitamin C Supplement - Vitamin C - High Dose Vitamin C - Vitamin C Vegan (500 Grams - 1.1 lbs)



<u>NOW Supplements, Vitamin C-500, Antioxidant Protection\*, Orange Juice Flavor, 100 Chewable</u> <u>Lozenge</u>



Tasty Chewable Blend of Vitamin C 1500mg, Elderberry 600mg, Rose Hips 600mg and Zinc 30mg Per Serving/ Per Day - Vegan Friendly, Non GMO



#### Vitamin D

First off, we are referring to vitamin D3. Research has shown that D2 is not well absorbed and inefficient. Vitamin D is one of the only vitamin that can be absorbed outside food or supplements. The sun is the number one source for D as we convert it through the skin. Getting sun is essential contrary to the false narrative of the medical field. Below is a link to an article regarding vitamin D, dose and myth busting. Please read this article as it is a very important eye opener for many!

https://holistichealthandfitnesstips.com/vitamin-d-deficiency/

Vitamin D3 is essential and can also be derived from some foods like fish, mushrooms and cod liver oil but not in sufficient amount. Supplementation is best after the sun through gel caps of D3 that are made from sheep's wool. People like me with polymorphisms with the D receptors need high dose to maintain optimal levels. I take on average, 50kIU per day in addition to sun bathing and have perfect health and cured back and bone issues I was having for years prior.

It is very important to take other cofactors to optimize high dose D especially K2 at an approximate ratio of 10 to 1, D to K2.(10,000IU D with 100 mcg K2). In addition, boron, magnesium and vitamin C boost D absorption.

This section will showcase all the brands I have or currently take with and without K2. I will include sources of K2 also.



Doctor's Best Vitamin D3 5000IU, Non-GMO, Gluten & Soy Free, Regulates Immune Function, Supports Healthy Bones, White, No Flavor, 180 Count



Liposomal Vitamin D3 K2 MK7 - 365 Softgels | VIT D3 5000 IU + K2 100 mcg with Organic Coconut Oil - K2 D3 Vitamin Supplement - Vitamin D and K Support Immune, Bone, Heart, Mood - Non GMO Gluten Free



Doctor's Best Natural Vitamin K2 MK-7 with MenaQ7 White No Flavor, 60 Count



AnuMed Vitamin D3 Cream with Magnesium 10,000 IU | Healthy Skin Care & Face Cream | Maximum Calcium Absorption | Non-Greasy Moisturizer for Dry Skin - 3 Ounces



<u>Solgar Liquid Vitamin D3 125 mcg (5,000 IU), 2 fl oz - Pack of 2 - Natural Orange Flavor -</u> <u>Helps Maintain Healthy Bones & Teeth - Immune System Support - Gluten & Dairy Free - 198</u> <u>Total Servings</u>



These are the forms available with exception of a vegetarian version made with mushrooms that I have not tried. My understanding is that the vegetarian form is no better, and unavailable in high dose. I recommend experimenting and trying all forms. I have had reports by some that the liquid seems to be more absorbable and tend to agree. I mix all forms and take in a combined total of around 50k IU or more per day.

You should get a D blood test to begin as a baseline level is important to know. It is quite possible that you have no issues with D although nearly 80 percent of the population is deficient. The FDA considers levels under 30 mg/nm deficient in the US. This is barely life support level and in my experience, you only begin feeling truly alive again when you reach 50 and higher. Many of the high dose experts including doctors, recommend attaining around a 100 level for truly miraculous health! I am beginning to see the light! As my levels rise well over 60 now, subtle issues that have been around for decades begin to improve. As mentioned earlier, my skin, hair, and autoimmune issues are going away. I no longer have psoriasis on my scalp. My nails no longer have ridges and I even found moles and skin tags disappearing! It's as though when you get your level high enough, the miraculous D has the ability to work on less important issues! Getting your D optimized is one of the best prepping things you can do for your health!

#### Vitamin E

Vitamin E is an important anti-oxidant that is often overlooked. The synthetic forms sold over the past several decades has had issues and some negative studies. The latest form called Tocotrienol, has been researched as safe and more effective. Make no mistake, it is essential! Take a look at the brands I use below.

<u>NATURELO Vitamin E - 180 mg (300 IU) of Natural Mixed Tocopherols from Organic Whole Foods</u> <u>- Supplement for Healthy Skin, Hair, Nails, Immune & Eye Health - Non-GMO, Soy Free - 90 Vegan</u> <u>Capsules</u>



Healthy Origins Tocomin SupraBio Tocotrienols 50 mg Softgels, Multicolor, 150 Count



Designs for Health Annatto-E 150mg Tocotrienols - DeltaGold Vitamin E Complex Supplement with Delta + Gamma Tocotrienols - Cardiovascular, Healthy Aging + Antioxidant Support - Non-GMO (60 Softgels)



### Minerals

Without minerals, vitamins are useless! A lot of people assume that it's all about vitamins and forget to get their essential minerals. I learned this years ago and when I got the minerals dialed in, the change was amazing! The difference in a good quality mineral vs a poor quality is night and day. An un-absorbable form is simply a rock whereas an active form is miraculous. We will show you the way to go and help you avoid throwing your money away on junk.

Checkout my regimen that has evolved from research and trial and error. Liquid versions will be covered first followed by capsules and powders.

#### **Essential minerals include the following:**

- calcium
- phosphorus
- sodium
- potassium
- magnesium
- manganese
- sulfur
- chloride
- iron
- lodine
- fluoride
- zinc
- copper
- selenium
- chromium
- cobalt

16 essential minerals that our bodies require. Yes, we can get these from food but even in normal times, most people's diet is not diverse enough to get the required amount of these minerals. Between the washed out soils and poor quality gmo foods loaded with pesticides, our bodies are starved for nutrients. Both vitamins and minerals are woefully deficient in our food and bodies.

The most deficient minerals on the list are iodine and magnesium and reportedly well over 50 percent of the population is deficient in both! When they say deficient, this means sub-clinical and no joke! The body is in serious dysfunction. It doesn't stop there with shortfalls in nearly all of this list and only a couple of exceptions in sodium and fluoride!

Now are you hearing what the message is? To be effective for yourself and family, you want your health and vitality to be at its best! We don't know what we don't know as the saying goes. How do you feel? Pretty good I guess is the answer but what if you felt a whole lot better?

You don't know what it's like until you get there! Maybe you have experienced this in learning or sports or music where you only knew what you knew at the time. After months of practice, you look back and may be amazed at how far you came. This happens when you optimize your vitamins and minerals! You will look back and say, OMG, I thought I was ok with the normal aches and pains but now, I feel like superman!

#### Liquid Mineral Supplements

I really like a high quality trace mineral liquid supplement that contains fulvic organisms. Fulvic minerals are derived from water or high mountain regions from volcanic soil. These are so important and simply unavailable from foods. In addition to the liquids blends, I also take most of the other minerals in capsule form to double down and get maximum dose and absorption. Try out one of the liquid blends below for a power packed mineral punch!

<u>Trace Minerals Colloidal Minerals Liquid Supplements | Colloidal Minerals Liquid, Plant</u> <u>Derived, Natural Vegan Minerals, Fulvic Acid Supplemented | 32 fl. oz. (1qt.) 946 ml</u>



#### Fulvic Acid

**Fulvic Acid** contains trace amounts of a full spectrum of naturally-occuring minerals and trace minerals to support the body's basic mineral foundation. Minerals help support everything from growth and development to strong bones and healthy heartbeat.

The Following Minerals Are Naturally-Occurring In Fulvic Acid: Boron, Calcium, Chromium, Copper, Iron, Magnesium, Manganese, Molybdenum, Phosphorus, Potassium, Selenium, Sodium, Sulfur, Zinc.

Mineral Blend Fulvic-Humic - 32 Fl. Oz. - 1 Month Supply - Vegan Liquid Ionic Trace Mineral Multimineral Supplement - Almost Tasteless - Plant Based



Supplement I Serving Size: 1 fl.oz. Servings Per Container 32	Facts	
	Amount Per % Daily Val Serving	lue*
Fulvic Bio-Mass Vegetal Minerals Humic Bio-Mass Vegetal Minerals Contains over 70 naturally occurrin bio-mass vegetal minerals in an ur unformulated and in the ratios natu original humate / lignite source Trace Amino Acids: Alanine, Glut Histidine, Isoleucine, Methionine, F Serine, Threonine, Valine	ng humic and fulvic naltered ionic solution; urally presented within th tamic Acid, Glycine,	ne
<ul> <li>+ Daily Value not established</li> <li>* Percent Daily Values are based of</li> </ul>	on a 2,000 calorie diet	2

Other Ingredients: Purified Reverse Osmosis De-Ionized Carbon Filtered Water

Incredible combination of both fulvic and humic minerals in addition a mix of trace amino acids. A real winner!

#### Calcium

This one is a mixed bag when it comes to recommendation. Personally, I do not take supplemental calcium on a regular basis. The theory is that if you take enough vitamin D and its cofactors, you will get enough calcium. We do not want excess calcium as it can deposit in soft tissue causing blockages and kidney stones. On the other hand, we want strong bones and calcium is the king for this.

My approach has modified to taking Silica which is rich in nutrients and become calcium with research indicating that it may be superior to taking typical calcium supplements. My experience is only anecdotal and by feel. If for some reason, usually in the winter when not getting as much sun, I will take a regimen of liquid calcium for maybe a month and that's it for the year. I stick with silica and count on high dose D with cofactors like boron and magnesium to give me the needed calcium.

For elderly women, it may not be a bad idea to take calcium along with silica but I suggest that you take vitamin K regardless of age or gender to push the calcium into the bones and out of soft tissue.

<u>Solgar Oceanic Silica from Red Algae 25 mg, 100 Vegetable Capsules - Excellent Source of Calcium,</u> <u>Supports Bone Health - Non-GMO, Vegan, Gluten Free, Dairy Free, Kosher, 100 Count (Pack of 1)</u>



Tropical Oasis Liquid Calcium & Magnesium - Natural formula w/ support for strong bones - Liquid vitamins w/ calcium, - 16oz, 32 Servings



NATURELO Bone Strength - Plant-Based Calcium, Magnesium, Potassium, Vitamin D3, VIT C, K2 - <u>GMO, Soy, Gluten Free Ingredients - Whole Food Supplement for Bone Health - 120 Vegan Friendly</u> <u>Capsules</u>



#### Phosphorus

Phosphorus is a mineral that naturally occurs in many foods and is also available as a supplement. It plays multiple roles in the body. It is a key element of bones, teeth, and cell membranes. It helps to activate enzymes, and keep blood pH within a normal range.

Next to calcium, phosphorus is the most abundant mineral in the body. These 2 important nutrients work closely together to build strong bones and teeth

Phosphorus is needed for the growth, maintenance, and repair of all tissues and cells, and for the production of the genetic building blocks, DNA and RNA. Phosphorus is also needed to help balance and use other vitamins and minerals, including vitamin D, iodine, magnesium, and zinc.

Phosphorus can be found in foods (organic phosphorus) and is naturally found in protein-rich foods such as meats, poultry, fish, nuts, beans and dairy products

The RDA is 700mg per day

#### **Symptoms of deficient Phosphorus:**

- muscle cramps or spasms
- numbness and tingling around the mouth
- bone and joint pain
- weak bones
- rash, itchy skin

Long-term starvation, malnutrition, and anorexia can deplete the body's stores of phosphorous over time. Acute hypophosphatemia is especially common in hospital patients undergoing refeeding. Additional causes include chronic infections, Crohn's disease, or malignant tumors. Hyperparathyroidism

# People with chronic kidney disease may need to avoid phosphate supplements. Since the kidneys are less able to clear phosphate from the body, the mineral may accumulate and lead to hyperphosphatemia (excessively high phosphorus levels)

This mineral falls into the same category as calcium in general. If you aren't starving and not suffering from some polymorphism that interferes with phosphorus, we don't need to supplement. Vitamin D, my favorite subject, is once again involved with facilitating this mineral as it does with so many others. Maximizing D should inherently optimize phosphorus.

I encourage readers to have their phosphorus level blood checked but this is also not reliable and your doctor may have an alternative suggestion.

With this said, since I do not, nor ever separately supplemented with phosphorus, there are no suggestions for this list. Phosphorus will be contained in the liquid fulvic and humic acid mineral complexes listed in this section and should be sufficient.

We used to order drinks called phosphates from an old soda fountain shop across from the Madison theater in Lakewood, Oh. back in the early 60s. They were awesome and apparently phosphorus based. I;m guessing nobody under 60 recalls this drink anymore.

#### Sodium

Low blood sodium is common in older adults, especially those who are hospitalized or living in longterm care facilities. Signs and symptoms of hyponatremia can include altered personality, lethargy and confusion. Severe hyponatremia can cause seizures, coma and even death.

Hyponatremia is diagnosed when there is too little sodium in your blood. It can be caused by a variety of factors, from conditions like Addison's disease or Cushing's syndrome, to excessive vomiting or diarrhea. Hyponatremia can be mild, and cause no symptoms, or it can be very severe and life threatening

Table 1. Medications that Increase the Risk of Hyponatremia

Medication Family	Examples
Diuretics	Hydrochlorothiazide, Furosemide (Lasix)
Non-steroidal anti-inflammatory drugs (NSAIDs)	Ibuprofen (Advil, Motrin), Naproxen sodium (Aleve)
Opiate derivatives	Codeine, Morphine
Phenothiazines	Prochlorperazine (Compazine), Promethazine (Phenergan)
Serotonin-reuptake inhibitors (SSRIs)	Fluoxetine (Prozac), Paroxetine (Paxil)
Tricyclic antidepressants	Amitriptyline (Elavil), Imipramine (Tofranil)

Individual Medications Associated with Hyponatremia Carbamazepine (Tegretol) Chlorpropamide (Diabinese) Clofibrate (Atromid-S) Cyclophosphamide (Cytoxan) Desmopressin (DDAVP; nasal or oral) Lamotrigine (Lamictal) Oxytocin (Pitocin) Vincristine (Oncovin)

Adequate Intake (AI) for Sodium and Sodium Chloride (Salt)

Life Stage	Age	Males and Females Sodium (mg/day)	Males and Females Salt (mg/day)*
Infants	0-6 months	110	280
Infants	7-12 months	370	930
Children	1-3 years	800	2,000
Children	4-8 years	1,000	2,500
Children	9-13 years	1,200	3,000
Adolescents	14-18 years	1,500	3,800
Adults	19 years and older	1,500	3,800
Pregnancy	14-50 years	1,500	3,800
Breast-feeding	14-50 years	1,500	3,800
	1 1 АТС	1. 1. 1. 11	o <b>-</b>

\*The AI for salt corresponds to the AI for sodium multiplied by 2.5

Table 3. Some Foods that are High in Sodium and Salt Content

Food	Serving	Sodium (mg)	Salt (mg)
Cereal, corn flakes	1 cup	182	445
Cereal, bran flakes	1 cup	216	540
Dill pickle	1 spear	283	707
Bread, whole-wheat	2 slices	291	727
Bread, white	2 slices	344	860
Hot dog (beef)	1	409	1,022
Cheese spread, pasteurized	1 ounce	416	1,040
Fish sandwich with tartar sauce and cheese	1 sandwich	582	1,455
Tomato juice, canned, with salt added	1 cup (8 fl. ounces)	615	1,537
Chicken noodle soup, canned	1 cup	789	1,972
Macaroni and cheese, box	1 cup	869	2,173
Corned beef hash	1 cup	972	2,430
Pretzels, salted	2 ounces (10 pretzels)	1,029	2,572
Ham, minced	3 ounces	1,059	2,647
Potato chips, salted	8 ounces (1 bag)	1,196	2,990
Sunflower seeds, dry roasted, with salt added	1 ounce	1,703	4,257

Table 4. Some Foods that are Relatively Low in Sodium and Salt Content

Food	Serving	Sodium (mg)	Salt (mg)
Olive oil	1 tablespoon	0	0
Orange juice, frozen	1 cup (8 fl. ounces)	0	0
Almonds, unsalted	1⁄4 cup	0.3	0.8
Popcorn, air-popped, unsalted	1 cup	1	3
Pear	1 medium	2	5
Mango	1 fruit	4	10
Tomato	1 medium	6	15
Fruit cocktail, canned	1 cup	9	23
Brown rice	1 cup, cooked	10	25
Potato chips, unsalted	8 ounces (1 bag)	18	45
Tomato juice, canned, without salt added	1 cup (8 fl. ounces)	24	60
Carrot	1 medium	42	105

The daily value (DV) for sodium is less than 2,400 mg. The % DV included on the Nutrition Facts label of packaged foods and beverages is meant to help consumers make informed choices and consider the foods with low ( $\leq$ 5% DV per serving) rather than high ( $\geq$ 20% DV per serving) sodium content (24).

You probably get the picture by now that we generally get more than enough sodium in our diets. Sodium is required to facilitate the electrolytes so a portion of any quality electrolyte is a small portion of sodium. If you are an athlete or have other issues such as old age that compromise sodium, you may consider supplementing but check with your doctor. I take an electrolyte powder mixture. As a keto proponent, more specifically a carnivore, I am susceptible to low potassium and taking an electrolyte mix is essential. Trust me on this one if you are also a keto/carnivore dieter because you will eventually have an issue with low K and your electrolytes.

I became so deficient at one point a couple years ago that I was close to needing emergency treatment. Unaware of what was happening, I had nearly all the end stage symptoms and was going into serious distress. Divine intervention hit me with the thought that I was severely deficient in potassium and it came out of the blue as I was about to head to the hospital. I just happened to have a container of electrolyte powder featuring 1000 mg of potassium along with sodium and other components such as magnesium. I was aware that ingesting large quantities of potassium could be toxic but I was desperate and took a couple scoops of the mix. I was in bad shape but appeared to not get worse. After about 30 minutes, I took another two scoops and began to recover. About an hour later, I had totally recovered and took another scoop. Ever since, I take electrolytes on occasion just to make sure I do not ever get into that deficient position.

I suggest that you get a quality electrolyte powder like what I use listed below and it will take care of your sodium requirement along with the other components. I do not take a separate sodium supplement and chances are that you do not need one either.

#### Electrolytes

<u>HYDROMINS Keto Electrolyte Powder - Hydration Supplement Drink Mix - Boost Energy and</u> <u>Beat Leg Cramps - Vegan and Keto Friendly - No Sugar | Raspberry and Lemon Flavor - 50</u> <u>Servings</u>



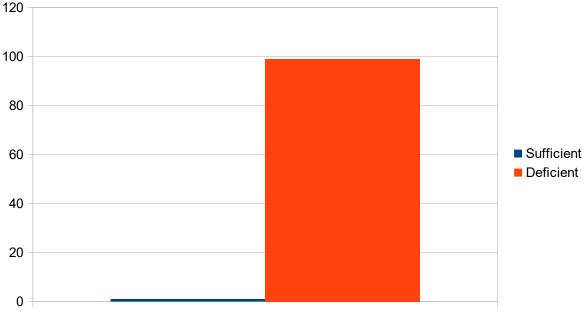
Electrolyte Powder Recovery Drink (90 Servings | Lemon Berry) w Real Salt +BCAAs +B-Vitamins Sugar Free Electrolyte Supplement w Potassium Zinc & Magnesium for Hydration -Keto Electrolytes



#### Potassium

If you skipped sodium, please go back and review as it goes into the electrolyte equation that is

headed up by potassium. These electrolytes work synergistically in a process that is similar to a battery. Pretty incredible that we actually have small electric like motors generating energy! Sodium acts like the conduit for this system while potassium is like the motor. Unless you eat a ton of veggies, this is one of those minerals the population is on average, terribly deficient! We require around 4700mg of this mineral daily! That's around 10 plus cups of vegetables!



Percent of population deficient in potassium

99 percent deficient! Incredible! Pubmed and virtually all other medical agencies report at least 90 percent of the population is deficient in potassium!

This is a serious statistic! What does this mean? From my view, I believe that it points to a couple of issues. First and foremost is the quality of our food. Soils have been depleted of potassium to the degree that we simply cannot reasonably get enough from our diet! This is critical!

Secondly, our culture, in general, has poor diets. With all the processed food and lack of vegetables, the odds of getting to 4700 mg of K per day is nearly impossible!

Until I discovered pressure cooking vegetables, the taste of cooked vegetables was a turn-off. See my article on pressure cooking vegetables - <u>https://holistichealthandfitnesstips.com/pressure-cooked-veggies/</u>

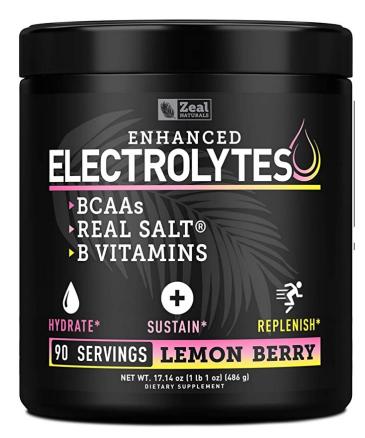
As a child growing up in the 50s and 60s, my family had garden vegetables and the taste was amazing with all the nutrients intact. This is no longer the case and why a lot of us skip veggies.

What to do? Beyond eating vegetables, it has become essential to supplement and again, it boils down to electrolytes. Taking potassium tablets is generally limited to 99mg with the exception of a few powders that I have discovered and listed below. I find it odd that some sources claim there is a legal limit of 99 mg per tablet for supplement manufacturers while other sources have up to 1000 mg! Maybe it is due to the electrolyte format and selling only potassium alone is the issue. Balancing potassium and the other components of electrolytes is an exact science so the proper ratios are

critical. Keep in mind, as forewarned earlier, that ingesting large quantities of potassium at one time can be dangerous. When I had my episode of severe deficiency, I read that the hospital puts patients on a intravenous drip to administer potassium over a period of time to avoid toxicity. When I read that the quantity administered was very high over a few hours, I balked thinking that some numbskull might screw up the drip time or quantity and kill me. I'm glad that I not only had the high dose electrolyte on hand but skipped the hospital trip. I have had several occasions of nearly being killed by medical malpractice and do not trust the medical industry very much.

So, I will restate the electrolytes again here that is your best source of potassium in the proper ratios with the other minerals.

<u>Electrolyte Powder Recovery Drink (90 Servings | Lemon Berry) w Real Salt +BCAAs +B-</u> <u>Vitamins Sugar Free Electrolyte Supplement w Potassium Zinc & Magnesium for Hydration -</u> <u>Keto Electrolytes</u> This one has 300 mg of potassium



HYDROMINS Keto Electrolyte Powder - Hydration Supplement Drink Mix - Boost Energy and Beat Leg Cramps - Vegan and Keto Friendly - No Sugar | Raspberry and Lemon Flavor - 50 Servings



This one has 1000 mg of potassium. The cost is a bit higher than other suggestion. I have used both and depending on my diet, will buy accordingly. When I was eating more vegetables, I used the 300 mg potassium version and on carnivore, I use this one. Either way, these are great additions to your health regimen that I highly recommend.

One of the first symptoms I had and many others is heart palpitations so if you have this symptom, be sure to buy one of these and see how it works for you. My symptoms went away fast!

## Magnesium

There is a caveat to the push for increased Vitamin D: Don't forget magnesium.

A review published in The Journal of the American Osteopathic Association found Vitamin D can't be metabolized without sufficient magnesium levels, meaning Vitamin D remains stored and inactive for as many as 50 percent of Americans.

"People are taking Vitamin D supplements but don't realize how it gets metabolized. Without magnesium, Vitamin D is not really useful or safe," says study co-author Mohammed S. Razzaque, MBBS, PhD, a professor of pathology at Lake Erie College of Osteopathic Medicine.

Razzague explains that consumption of Vitamin D supplements can increase a person's calcium and phosphate levels even if they remain Vitamin D deficient. The problem is people may suffer from vascular calcification if their magnesium levels aren't high enough to prevent the complication.

Patients with optimum magnesium levels require less Vitamin D supplementation to achieve sufficient Vitamin D levels. Magnesium also reduces osteoporosis, helping to mitigate the risk of bone fracture that can be attributed to low levels of Vitamin D, Razzaque noted.

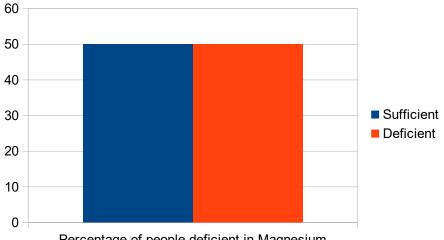
Deficiency in either of these nutrients is reported to be associated with various disorders, including skeletal deformities, cardiovascular diseases, and metabolic syndrome.

While the recommended daily allowance for magnesium is 420 mg for males and 320 mg for females, the standard diet in the United States contains only about 50 percent of that amount. As much as half of the total population is estimated to be consuming a magnesium-deficient diet.

Researchers say the magnesium consumption from natural foods has decreased in the past few decades, owing to industrialized agriculture and changes in dietary habits. Magnesium status is low in populations who consume processed foods that are high in refined grains, fat, phosphate, and sugar.

"By consuming an optimal amount of magnesium, one may be able to lower the risks of Vitamin D deficiency, and reduce the dependency on Vitamin D supplements," says Razzaque.

Magnesium is the fourth most abundant mineral in the human body after calcium, potassium, and sodium. Foods high in magnesium include almonds, bananas, beans, broccoli, brown rice, cashews, egg yolk, fish oil, flaxseed, green vegetables, milk, mushrooms, other nuts, oatmeal, pumpkin seeds, sesame seeds, soybeans, sunflower seeds, sweet corn, tofu, and whole grains.



Percentage of people deficient in Magnesium

Since I discovered how important magnesium is as a cofactor to vitamin D, I have been supplementing with it individually outside of the occasional use of the electrolytes.

I truly believe that this has made the difference in my D level! My dose of D has been very high over the past few years but since introducing magnesium at high levels, the combination has made a huge difference!

Additionally, the type of magnesium is critical! There are ten types of magnesium being sold! I wrote an article covering this subject here - <u>https://holistichealthandfitnesstips.com/magnesium-brands-with-complex-formulations/</u>

I will list only the best of the best below

Magnesium Complex Supplement 500mg, 180 Capsules, 5 in 1 Formula, Chelated for Maximum Absorption, Supports Sleep, Muscle Cramps, Anti-Stress & Relaxation



Premium Magnesium Complex - Magnesium Citrate, Malate, Taurate, Oxide, Aspartate, Bisglycinate Chelate TRAACS - 120 Capsules



Magnesium Breakthrough Supplement 4.0 - Has 7 Forms of Magnesium Like Bisglycinate, Malate, Citrate, and More - Natural Sleep Aid - Brain Supplement - 60 Capsules



## Manganese

Manganese is a trace mineral that is present in tiny amounts in the body. It is found mostly in bones, the liver, kidneys, and pancreas. Manganese helps the body form connective tissue, bones, blood clotting factors, and sex hormones.

Athletes may benefit from supplementing this trace mineral for muscle strains and regeneration of tissue.

Manganese is a mineral that is found in several foods including nuts, legumes, seeds, tea, whole grains, and leafy green vegetables. It is considered an essential nutrient, because the body requires it to function properly. People use manganese as medicine.

#### Deficiency in manganese possible symptoms:

- poor bone growth or skeletal defects.
- slow or impaired growth.
- low fertility.
- impaired glucose tolerance, a state between normal glucose maintenance and diabetes.
- abnormal metabolism of carbohydrate and fat.

Manganese toxicity can result in a permanent neurological disorder known as manganism with symptoms that include tremors, difficulty walking, and facial muscle spasms. These symptoms are often preceded by other lesser symptoms, including irritability, aggressiveness, and hallucinations.

Manganese is an essential nutrient necessary for many important bodily functions. Generally, most people are able to consume enough manganese through their regular diet.

If you're concerned that you have a manganese deficiency or if you have a condition that puts you at risk for lower-than-optimal manganese levels, talk with your doctor about your concerns.

This is one of the trace minerals we get sufficient amount from foods. If you take one of the liquid multi-minerals suggested in this guide, it will contain manganese. If you do not take the multi mineral and are under nourished, supplementation may be a consideration. From all indications, adult males need about 2 mg per day and may supplement up to 11 mg.

Personally, I have never individually supplemented manganese but may give it a try. There appears to be a concern of over dosing from manganese so randomly taking in large amounts could be detrimental. I suggest treading lightly on this one. I have included my best researched individual version of this trace mineral below.

Raw Whole Food Manganese Supplement - Pure Trace Mineral Capsules for Connective Tissue, Bone Health and Enzyme Support. Superior Absorption. 30 Pills



I chose this one because it's made from dozens of freeze dried real food combined to make up 15mg per dose. Taking any natural food formulation makes it worry free from overdose unlike synthetic forms. This is one pill per day and a 30 day dose. This is a good and safe version to see how it works for you! I am going to order this one also

## Sulfur

One of the essences of life! This mineral is essential as the others and plays a very important part in our lives!

Sulfur is an abundant mineral in the human body. It occurs naturally and has many functions. Proteins, vitamins, and other elements in the body contain sulfur, which plays a vital role in several processes that are essential to life.

Your body needs sulfur to build and fix your DNA and protect your cells from damage that can lead to serious diseases such as cancers. Sulfur also assists your body to metabolize food and contributes to the health of your skin, tendons, and ligaments. The two amino acids that include sulfur are methionine and cysteine.

A deficiency of sulfur in the body can cause following health disorders: acne, arthritis, brittle nails and hair, convulsions, depression, Eczema, Itchy skin or scalp, Migraine headaches, memory loss, gastrointestinal issues, rashes and even slow wound healing.

## **Foods Containing Sulfur**

- Turkey, beef, eggs, fish, and chicken. ...
- Nuts, seeds, grains, and legumes. ...
- Chickpeas, couscous, eggs, lentils, oats, turkey and walnuts. ...
- Allium Vegetables. ...
- Cruciferous Vegetables. ...
- Whole Grains. ...
- Leafy Green Vegetables.

## Two forms of sulfur supplements include DMSO and MSM

DMSO, or dimethyl sulfoxide, is a by-product of paper making. It comes from a substance found in wood. DMSO has been used as an industrial solvent since the mid-1800s. From about the mid-20th century, researchers have explored its use as an anti-inflammatory agent.

## What is DMSO used for?

DMSO is an exceptionally versatile therapy. For starters, it's one of the few compounds that can be administered orally, topically, and through injection of both the vein and the muscle. The results of thousands of studies attesting to its health-promoting properties strongly support the view that DMSO is a truly significant therapeutic anti-inflammatory and that holds promise in managing a wide range of debilitating conditions:

*Arthritis* - With its ability to penetrate tissues, DMSO shows value in reducing pain and inflammation in osteoarthritis, rheumatoid arthritis, and possibly even gout.

*Atherosclerosis* - In laboratory tests, DMSO has demonstrated its ability to delay the development of atherosclerosis (narrowing of the arteries) induced by dietary cholesterol as well as suppress the accumulation of cholesterol in tissues, despite severely elevated levels.

*Drug extravasation injury* - Extravasation refers to the escape of a drug into the extravascular space (soft tissue), either by leakage from a vessel or by direct infiltration. When chemotherapy drugs leak into surrounding tissues (extravasate), the effects can be severely damaging. Many studies have shown that DMSO application has significantly improved extravasation tissue injury in affected patients.

*Herpes* - DMSO has been used to enhance penetration of alpha-interferon ointment in the treatment of herpes.

*Interstitial cystitis* - Instilling DMSO in the urinary bladder is an FDA-approved pain-relieving treatment for this chronic inflammatory condition.

*Reflex sympathetic dystrophy* - DMSO helps relieve the pain of this condition, an autonomic nervous system disorder characterized primarily by overwhelming pain in the extremities.

*Scleroderma* (hardening of the skin) - In basic work done at the Cleveland Clinic, topical DMSO was found to have an anti-inflammatory effect while increasing blood supply to the skin.

*Strains and sprains* - DMSO provides rapid elimination of pain and increased mobility when used topically. It passes through the skin's oily membranes and reduces swelling and inflammation almost immediately.

Keloids, Scars, Burns, Bruises - A concentration of 50 to 80% put on two or three times a day will flatten a raised scar after several months. It is of considerable value in superficial burns and when applied quickly to an injury, it can eliminate any bruising.

#### Why is DMSO so effective?

Sulfur compounds are found in all body cells and are indispensable. They are needed for a number of chemical reactions involved in the detoxification of the body. As a source of sulfur, DMSO aids in heavy metal detoxification. Sulfur binds with toxic heavy metals (mercury, lead, aluminum, cadmium, arsenic, nickel) and eliminates them via urination, defecation and sweating. DMSO protects the cells from mechanical damage and considerably less amounts of it is needed to achieve results compared to many other pharmaceutical drugs. This is a crucial mechanism since some molecules in our bodies produce an unequal number of electrons and the instability of the number causes them to destroy other cells. DMSO hooks on to those molecules and they are then expelled from the body. DMSO is an effective pain killer, blocking nerve conduction fibers that produce pain and reduces inflammation and swelling by eliminating inflammatory chemicals.

It also has a calming effect on the central nervous system and it reaches all areas of the body, when absorbed through the skin, including the brain. That is, DMSO applied to one area often leads to pain relief in some other location due to its systemic effect. DMSO effortlessly penetrates the skin and the blood-brain barrier, penetrating tissues, and entering the bloodstream. It further improves blood supply to an area of injury by dilating blood vessels and increasing delivery of oxygen and by reducing blood platelet stickiness. DMSO boosts the immune system, increasing the production of white cells and macrophages that destroy foreign material and pathogens in the body. It also has anti-bacterial, antiviral and anti-fungal properties. Among the sulfur compounds, DMSO is probably the one that has the widest range and greatest number of therapeutic applications ever shown for any other single

chemical. It stimulates healing, which is a key to its usefulness in any condition. It is among the most potent free radical scavengers known to man, if not the most potent one.

I have tried DMSO fairly recently mostly for arthritis. My thinking was that I could get sulfur from it and help with arthritis flair ups.

In addition, since it absorbs virtually anything it touches, I tried using it with a few topicals like D and magnesium. The results were inconclusive for me.

During a bout of sciatica, I used it on my legs for the pain and it was somewhat effective but it does tend to burn the skin slightly if not diluted.

There are many that take it internally but I did not try it this way. DMSO has reportedly many benefits and suggest that you try it but I personally did not find much effect and did not really give it a thorough, long term evaluation. Here is the brand I tried. It has good specs and price.

<u>NO ODOR DMSO - Dimethyl sulfoxide liquid (3.4 Oz - 100ml), Pharmaceutical grade, High</u> <u>purity, Heiltropfen</u>

P DM	
HEILTR	
DMSO 99.9% 3.4 Oz / 100ml	
Ments: Dimethyl sulfoxide (C2H6OS) 99.9% (Ph. Ed. (F CAS-No:. 67-68-5 EG-No.: 200-664-3 Mpoint: 18.40°C (65.3°F). Below this temperature is the	
Keep in a dark place. This poduct is intended for use as a solvent only. The don't are the avoid as a polications is the solve ensonable draw the dot contact with eyes, clothing. Wash thorough draw and dr childen. If you are prepared not writing 0.00 for and dr childen. If you are prepared not unusing 0.00 for an in allegic reaction occurs and consult your healthcar generation.	
Made in EU	
www.heiltropfen.com	
Name and Address of the Owner, where	

#### MSM

This is the most common form of supplemental sulfur and the type that I have used for years. I heartily suggest trying as the chances are that you do not get enough from diet. No worries on

overdosing but do follow the directions. I have used all three brands and they are equally effective.

Doctor's Best MSM Powder with OptiMSM, Non-GMO, Vegan, Gluten Free, Soy Free, 250 Grams



Kala Health MSMPure Coarse Powder Flakes, 8.8 oz, Organic Sulfur Crystals, 99.9% Pure Distilled MSM Supplement, Made in The USA



BulkSupplements.com MSM Powder (Methylsulfonylmethane) - Keratin Supplements - MSM Pure Powder - Sulfur Powder - Joint Supplements - Pure MSM Supplement - MSM Crystals (1 Kilogram - 2.2 lbs)



## Chloride

Chloride is a type of electrolyte. It works with other electrolytes such as potassium, sodium, and carbon dioxide (CO2). These substances help keep the proper balance of body fluids and maintain the body's acid-base balance.

Chloride functions primarily to regulate <u>osmotic pressure</u>. It also is involved as a <u>coenzyme</u> for digestive <u>amylase</u>, is a component of hydrochloric acid in the stomach, and is part of the buffer system

that maintains acid-base balance in the body. Disturbances in the acid-base balance may result from large losses of chloride from vomiting and diarrhea. The estimated safe and adequate intake of chloride per day is from 1700 mg to 5100 mg for adults. Common table salt provides the major source of chloride in the diet.

Chloride along with sodium and potassium are responsible for <u>osmotic pressure</u> and acid-base balance. Chloride is the most abundant anion in the extracellular fluid. As an electronegative element, CI- is an <u>oxidizing agent</u>. In addition to its passive role in <u>electrolyte balance</u>, chloride is required for the production of gastric <u>hydrochloric acid</u> secreted from the <u>parietal cells</u> of the gastric <u>mucosa</u> in the stomach. This mucosa also releases <u>pepsinogen</u>, which is activated by HC1 and is the intrinsic factor needed for vitamin B12 absorption and mucus production. Mucus protects the organ from being digested by the HC1 and <u>proteases</u>. HC1 acts as a <u>bacteriocide</u> preventing <u>bacterial overgrowth</u> of the gastrointestinal tract. It also functions as the <u>exchange anion</u> in the red blood cell for HCO-3 known as the chloride shift. This process allows the transfer of CO2 derived from the tissues back to the lungs.

The takeaway is that we generally get enough chloride from our diet. The most interesting information I found is how chloride is essential in the creation of "intrinsic factor". IF is the mysterious medium created in our gut that allows us to metabolize vitamin B12!

My research on intrinsic factor has never been able to pinpoint all the ingredients that make it up. As we age, it becomes difficult to optimize our gut PH and also make intrinsic factor. I realize that there are several other components that help make IF such as HCL, bile salts and others but was unaware of chloride's part in it.

We are continually warned not to take in too much sodium and chloride 0table salt, but on the other hand, we need it! If you eat clean food without a lot of salt added, I believe a good sea salt or celtic salt is not only necessary, but healthy.

No need to buy a supplement for this essential trace mineral but we all need to monitor our intake and be sure it's not too much or too little!



## Iron

The most common condition that requires iron supplements is iron deficiency anemia.

People with iron deficiency anemia do not have enough healthy blood cells to carry oxygen to the parts of the body that need it. This is because there is a shortage of iron in the blood.

Taking iron supplements can raise the amount of iron in the body to a healthy level.

It is possible to have an <u>iron deficiency</u> but not iron deficiency anemia. People with an iron deficiency may have the <u>right amount</u> of hemoglobin levels but present with symptoms similar to those of iron deficiency anemia, which include:

- fatigue
- weakness
- <u>dizziness</u>
- shortness of breath
- pale skin

An iron deficiency may develop due to:

- **Pregnancy**: Women who are pregnant may develop an iron deficiency. This is because there is an <u>increased demand</u> for new red blood cells to support the fetus. One systematic review found that taking iron supplements during pregnancy <u>reduced the risk</u> of developing an iron deficiency.
- **Blood loss:**<u>Blood loss</u> due to <u>heavy menstruation</u>, <u>hernias</u>, or gastrointestinal bleeding may cause an iron deficiency and require iron supplements.
- Cancer: A2016 study found that iron deficiency was common in people with cancer.
- **Diet:** Some people who do not eat a diet rich in iron can develop a deficiency.
- **Malabsorption:** including <u>celiac disease</u>, <u>Crohn's disease</u>, <u>cystic fibrosis</u>, and <u>chronic</u> <u>pancreatitis</u>— can make it harder for the body to absorb iron.

People may also take iron supplements for <u>attention deficit hyperactivity disorder (ADHD)</u>or to enhance sports performance.

<u>Some research</u> suggests that low iron levels may be associated with ADHD. However, <u>other studies</u> highlight that this may not be the case. Further research is necessary.

Also, a <u>systematic review</u> found that the performance of athletes with a slight iron deficiency improved after taking iron supplements.

Other people may choose to take iron supplements despite not having a medical condition that requires them.

## Side effects

Taking the appropriate dosage of iron is unlikely to cause any side effects.

In some instances, however, people taking iron supplements may experience the following symptoms:

- <u>diarrhea</u>
- <u>flatulence</u>
- constipation
- <u>nausea</u>

In most cases, these side effects will subside once the body adjusts to the supplement. If someone experiences these side effects and has concerns about them, they can speak to a healthcare professional.

Having too much iron in the body can also be problematic. Hemochromatosis, or iron overload, causes

iron to build up in the body. Without treatment, iron overload disorder can damage the body's organs, including the heart, liver, and pancreas.

If someone takes more than the recommended dosage of iron supplements, they may develop iron poisoning. If someone suspects that they have taken too much iron, they should seek professional medical advice as soon as possible.

## Dosages

The dosage of iron that someone needs can vary depending on their age, sex, and whether or not they are pregnant or lactating.

According to the <u>NIH</u>, the recommended daily amount of iron, in milligrams (mg), is as follows:

Age	Male	Female	<b>During pregnancy</b>	<b>During lactation</b>
0–6 months	0.27 mg*	0.27 mg*		
7–12 months	11 mg	11 mg		
1–3 years	7 mg	7 mg		
4–8 years	10 mg	10 mg		
9–13 years	8 mg	8 mg		
14–18 years	11 mg	15 mg	27 mg	10 mg
19–50 years	8 mg	18 mg	27 mg	9 mg
51+ years	8 mg	8 mg		
*Adequate Int	ake			

If someone requires iron supplements because they have an iron deficiency, a healthcare professional or pharmacist can determine the amount that they should take.

This mineral consideration should begin with a blood test. If you know that you have iron poor blood, by all means take some ferrous type iron. Men need to be careful of buildup so again, it is a good idea to get a blood test.

I have taken the following iron during the time that I was run down and suffering from chronic fatigue a few years back after caring for my mother a long while until she died. As long as you do not take for prolonged periods or in high dose, iron is essential and may give you the boost that you need!

Nature's Bounty Iron 65mg, 325 mg Ferrous Sulfate, Cellular Energy Support, Promotes Normal Red Blood Cell Production, 100 Tablets



## lodine

This mineral is one of my favorites to discuss. I have spent many hours researching it and what the science research and studies show is very different than what most of the public is aware of. I suggest that you checkout my high dose iodine article below.

## https://holistichealthandfitnesstips.com/iodine-protocol/

lodine as my article details, has been depicted as unimportant, if not dangerous by the mainstream medical profession! Just like vitamin D and other essential nutrients, iodine is absolutely critical for life and health! In case you haven't noticed, most anything good and essential for health and life, is demonized by western medicine in deference to drugs.

As a kid growing up in the midwest, we grew vegetables and I remember the taste of tomatoes back then and to this day. They had a strong flavor of iodine! It was a robust, full flavor that was amazing! With few exceptions, the youth of today has never experienced that flavor in tomatoes and other vegetables due to the lack of iodine!

We can still get iodine from kelp and fish but the access to iodine in good quantity and quality has greatly diminished. The benefits are so many that we could simply put it as, one of the essences of life! So why is it out of favor and demonized? It makes people very healthy and intelligent and the globalist powers that be do not want this! Pitiful.

So friends, without belaboring the point and hoping that you read my article so I needn't explain further, here are my suggestions for you that I use below:

\*I want to mention that most sources of lugol's iodine are at 2 percent unless you buy directly from J Crows who also sells 5 percent. I bought directly from them at 5 percent but had some reactions. Looking back, it was likely what Dr. Brownstein's warning of Hashimoto issues was. I began to develop a lump in my throat and got cold feet and bailed out just like he said not to do! His theory is that Hashimoto sufferers should power through this phase instead of avoiding as the prevalent theory says. I tried again about a month later with the high dose protocol and I was fine with no side effects! Since then, I have dropped down to the 2 percent only from a cost reason. You can buy two bottles for a lower price than one 5 percent solution from J Crows. I simply take more and to this day, take very high quantity with nothing but good health to show for it!

Lugols Iodine 2 Percent 2 fl oz Twin Pack | Potassium Iodide and Iodine Solution 2% Liquid Drops | by Carlyle



## J.Crow's Lugol's Iodine Solution, 2 oz, Twin Pack (2 Bottles)



## Oregon's Wild Harvest Kelp Organic Supplement, 90 Count



## Fluoride

This essential trace mineral is an enigma in the sense that we need less than 5 mg per day apparently but the downside appears higher than the good. Fluoride reportedly reinforces bone and teeth as we are all familiar with. Too much and we have the following potential side effects:

#### 1. Tooth Discoloration

Consumption of too much of fluoride leads to yellowed or browned teeth. With regular brushing, it is easy to avoid and therefore does not poses any risk.

## 2. Tooth Decay

High intake fluoridated water can lead to the weakening of enamel. This mainly affects children who are still at the age of developing teeth.

#### 3. Skeletal Weakness

Taking too much fluoride highly impact teeth and damage the skeletal system as well. Patients suffering from endemic skeletal fluorosis struggle with problems. Joints become weak - Increasing the risk of a fracture

#### 4. Neurological Problems

Fluoride not only affects bone and teeth, but it also impacts young children in the development of the brain. Exposure to fluoride before birth could lead to poorer cognitive outcomes in the future.

Higher levels of fluoride lead to low scores in IQ tests.

#### 5. High Blood Pressure

As per research, there is a significant correlation between high blood pressure and water with too much fluoride.

#### 6. Acne

People are concerned with the internal fluoride treatment side effects but it affects your appearance as well.

Regular intake of fluoride may lead fluoroderma which results in acne and painful sores.

#### 7. Seizures

Fluoride alone will not cause seizures; it can put seizure sufferers at an increased risk. If you're already prone to seizures, ensure to keep track of the water quality. Too much consumption of fluoride can cause a life-threatening seizure.

## Seems odd that prisons have been known to administer fluoride to their population to keep them docile and compliant!

## Another little known fact is many, if not most major cities use a toxic runoff product called **hydrofluosilicic acid in the city water**!

This toxic waste by product has been passed off as fluoride and put in the tap water! Do your own research and be horrified! Note to self, do not drink the tap water!

So, this essential trace mineral is a real mixed bag that I have never supplemented and currently use fluoride free toothpaste. I suggest getting what you reportedly require from food and residual water.

## Zinc

This one is yet another trace element the majority of the population is deficient in! So important and zinc has so many functions!

Zinc is a trace mineral, meaning that the body only needs small amounts, and yet it is necessary for almost 100 enzymes to carry out vital chemical reactions. It is a major player in the creation of DNA, growth of cells, building proteins, healing damaged tissue, and supporting a healthy immune system.

#### **Food Sources**

Meats, poultry, and seafood are rich in zinc. Some plant foods like legumes and whole grains are also good sources of zinc, but they also contain phytates that can bind to the mineral, lowering its absorption.

<u>1. Meat</u> is an excellent source of zinc.

Red meat is a particularly great source, but ample amounts can be found in all different kinds of meat, including beef, lamb and pork.

In fact, a 100-gram (3.5-ounce) serving of raw ground beef contains 4.8 mg of zinc, which is 44% of the Daily Value.

This amount of meat also provides 176 calories, 20 grams of protein and 10 grams of fat. Plus, it's a great source of many other important nutrients, such as iron, B vitamins and creatine.

It's worth noting that eating large amounts of red meat, especially processed meat, has been linked to an increased risk of heart disease and some cancers .

However, as long as you keep your intake of processed meats to a minimum and consume unprocessed red meats as part of a diet rich in fruits, vegetables and fiber, this probably isn't something you need to worry about.

## SUMMARY

Meat is an excellent source of zinc. A 100-gram serving of raw ground beef provides 44% of the DV.

2. Shellfish

Shellfish are healthy, low-calorie sources of zinc.

Oysters contain particularly high amounts, with 6 medium oysters providing 32 mg, or 291% of the DV.

Other types of shellfish contain less zinc than oysters but are still good sources.

In fact, Alaskan crab contains 7.6 mg per 100 grams (3.5 ounces), which is is 69% of the DV. Smaller shellfish like <u>shrimp</u> and mussels are also good sources, both containing 14% of the DV per 100 grams (3.5 ounces).

However, if you are pregnant, make sure shellfish are completely cooked before you eat them to minimize the risk of food poisoning.

## SUMMARY

Shellfish like oysters, crab, mussels and shrimp can all contribute to your daily zinc needs.

## 3. Legumes

Legumes like chickpeas, lentils and beans all contain substantial amounts of zinc.

In fact, 100 grams of cooked lentils contain around 12% of the DV.

However, they also contain phytates. These antinutrients inhibit the absorption of zinc and other minerals, meaning zinc from legumes isn't as well absorbed as the zinc from animal products

Despite this, they can be an important source of zinc for people following vegan or vegetarian diets. They are also an excellent source of protein and fiber and can be easily added to soups, stews and salads.

Heating, sprouting, soaking or fermenting plant sources of zinc like legumes can increase this mineral's

bioavailability.

## SUMMARY

Legumes contain high amounts of zinc. However, they also contain phytates, which reduce its absorption. Processing methods like heating, sprouting, soaking or fermenting can help improve its bioavailability.

### 4. Seeds

Seeds are a healthy addition to your diet and can help increase your zinc intake.

However, some seeds are better than others.

For example, 3 tablespoons (30 grams) of hemp seeds contain 31% and 43% of the recommended daily intake for men and women, respectively.

Other seeds containing significant amounts of zinc include squash, pumpkin and sesame seeds.

In addition to boosting your zinc intake, seeds contain fiber, healthy fats, vitamins and minerals, making them an excellent addition to your diet.

Including them as part of a healthy diet has also been linked to some health benefits, including <u>reduced</u> <u>cholesterol</u> and blood pressure.

To add hemp, flax, pumpkin or squash seeds into your diet, you can try adding them to salads, soups, yogurts or other foods.

## SUMMARY

Some seeds like hemp, pumpkin, squash and sesame seeds contain significant amounts of zinc. They are also a good source of fiber, healthy fats and vitamins, making them a healthy addition to your diet.

## 5. Nuts

Eating nuts such as pine nuts, peanuts, cashews and almonds can boost your intake of zinc.

Nuts also contain other healthy nutrients, including healthy fats and fiber, as well as a number of other vitamins and minerals.

If you're looking for a nut high in zinc, cashews are a good choice. A 1-ounce (28-gram) serving contains 15% of the DV.

Nuts are also a quick and convenient snack and have been linked to a reduction in risk factors for some diseases, like heart disease, cancer and diabetes

What's more, people who eat nuts tend to live longer than those who don't, making nuts a very healthy addition to your diet.

## SUMMARY

Nuts are a healthy and convenient snack that can boost your intake of zinc and many other healthy nutrients.

## 6. Dairy

Dairy like cheese and milk provide a host of nutrients, including zinc.

Milk and cheese are two notable sources, as they contain high amounts of bioavailable zinc, meaning most of the zinc in these foods can be absorbed by your body

For example, 100 grams of cheddar cheese contains about 28% of the DV, while a single cup of full-fat milk contains around 9%

These foods also come with a number of other nutrients considered important foe bone health, including protein, calcium and vitamin D.

## SUMMARY

Dairy foods are good sources of zinc. They also contain protein, calcium and vitamin D, all of which are important nutrients for bone health.

## 7. Eggs

Eggs contain a moderate amount of zinc and can help you meet your daily target.

For example, 1 large egg contains around 5% of the DV.

This comes with 77 calories, 6 grams of protein, 5 grams of healthy fats and a host of other vitamins and minerals, including B vitamins and selenium.

Whole eggs are also an important source of <u>choline</u>, a nutrient that most people aren't getting enough o.

## SUMMARY

One large egg contains 5% of the DV for zinc, as well as a host of other nutrients, including protein, healthy fats, B vitamins, selenium and choline.

8. Whole Grains

Whole grains like wheat, quinoa, rice and oats contain some zinc.

However, like legumes, grains contain phytates, which bind to zinc and reduce its absorption.

Whole grains contain more phytates than refined versions and will likely provide less zinc.

However, they are considerably better and a good source of many important nutrients like fiber, B vitamins, magnesium, iron, phosphorus, manganese and selenium.

In fact, eating whole grains has been linked to a longer life and number of other health benefits, including a reduced risk of obesity, type two diabetes and heart disease

## SUMMARY

Whole grains can provide a source of zinc in your diet. However, the zinc they provide may not be absorbed as well as other sources due to the presence of phytates.

## 9. Some Vegetables

In general, <u>fruits and vegetables</u> are poor sources of zinc.

However, some vegetables contain reasonable amounts and can contribute to your daily needs, especially if you don't eat meat.

<u>Potatoes</u>, both regular and sweet varieties, contain approximately 1 mg per large potato, which is 9% of the DV.

Other vegetables like green beans and kale contain less, at around 3% of the DV per 100 grams.

Although they don't contain a lot of zinc, eating a diet rich in vegetables has been linked to a reduced risk of chronic diseases like heart disease and cancer (<u>37Trusted Source</u>, <u>38Trusted Source</u>).

## SUMMARY

Most vegetables are poor sources of zinc, but some contain moderate amounts and can contribute to your daily needs, especially if you don't eat meat.

## 10. Dark Chocolate

Surprisingly, <u>dark chocolate</u> contains reasonable amounts of zinc.

In fact, a 100-gram (3.5-ounce) bar of 70–85% dark chocolate contains 3.3 mg of zinc, or 30% of the DV.

However, 100 grams of dark chocolate also contain 600 calories. So while it provides some healthy nutrients, it is a high-calorie food.

While you may get some added nutrients with your treat, it's not a food you should be relying on as your main source of zinc.

So, you see that there are a number of food sources available to get zinc. Unfortunately, once again, the levels of zinc from food are diminishing. In addition, zinc needs replenishment daily as it is not stored!

11 mg is a joke in my book and not even close to being beneficial. Anyone with compromised health, smoking, autoimmune issues etc., need substantially more zinc!

I take upwards of 100 mg per day and if I am feeling something coming on, which is rarely, I may up it to 200 mg!

Check with your health provider before exceeding the FDA posted RDA of zinc.

Here are the brands I have purchased and recommend:

## Support - 100 Servings

•



Fantastic combination using high dose zinc with C and quercitin!

## Nature's Way Zinc Chelate, Supports Immune Function\*, 30 mg per Serving, 100 Capsules



Inexpensive, absorbable form

## Nature's Life Zinc Picolinate Capsules, 30 Mg, Plus 2mg Copper | 50 Count



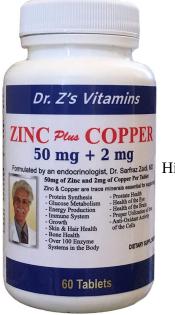
Absorbable form plus copper. Copper is necessary in small quantity to counteract zinc over dominance.

Tasty Chewable Blend of Vitamin C 1500mg, Elderberry 600mg, Rose Hips 600mg and Zinc 30mg Per Serving/ Per Day - Vegan Friendly, Non GMO



Incredible immunity blend that's tasty and chewable

Dr. Z's Vitamins: Zinc Plus Copper - 50 MG of Chelated Zinc and 2 MG of Copper - Supports: Energy, Immune System, Skin & Hair, Glucose Metabolism, Eye and Brain - 60 Easy to Swallow Tablets



High dose zinc with copper

## Copper

We alluded to copper offsetting zinc as one can negate the other like oil and water. Copper is however, a very important trace mineral in the scheme of things.

Copper is an essential nutrient for the body. Together with iron, it enables the body to form red blood cells. It helps maintain healthy bones, blood vessels, nerves, and immune function, and it contributes to iron absorption. Sufficient copper in the diet may help prevent cardiovascular disease and osteoporosis

## Benefits of Foods High in Copper

1.Boost Brain Health

- 2.Promote Healthy Skin, Hair and Eyes3.Promote Energy Maintenance and Prevent Anemia4.Allow for Proper Growth and Development5.Strengthen Bones
- 6.Support Your Metabolism
- 7.Support Immunity

Our bodies cannot produce copper independently, so we need to get the mineral from foods in our diet. Copper requirements increase with age, but on average, adults should get 900 micrograms of the mineral every day.

## Top 20 Foods High in Copper

#### 1. Beef Liver

1 ounce: 4 milligrams (200 percent DV)

2. Dark chocolate

1 bar: 1.8 milligrams (89 percent DV)

#### 3.Sunflower seeds

1 cup with hulls: 0.8 milligram (41 percent DV)

#### 4. Cashews

1 ounce: 0.6 milligram (31 percent DV)

5.Chickpeas

1 cup: 0.6 milligram (29 percent DV)

6. Raisins

1 cup: 0.5 milligram (25 percent DV)

#### 7. Lentils

1 cup: 0.5 milligram (25 percent DV)

#### 8. Hazelnuts

1 once: 0.5 milligram (25 percent DV)

#### 9. Dried apricots

1 cup: 0.4 milligram (22 percent DV)

#### 10. Avocado

1 avocado: 0.4 milligram (18 percent DV)

#### 11. Sesame seeds

1 tablespoon: 0.4 milligram (18 percent DV)

#### 12. Quinoa

1 cup, cooked: 0.4 milligram (18 percent DV)

#### 13. Turnip greens

1 cup, cooked: 0.4 milligram (18 percent DV)

#### 14. Blackstrap Molasses

2 teaspoons: 0.3 milligram (14 percent DV)

#### 15. Shitake Mushrooms

1 ounce: 0.3 milligram (14 percent DV)

#### 16. Almonds

1 ounce: 0.3 milligram (14 percent DV)

#### 17. Asparagus

1 cup: 0.3 milligram (13 percent DV)

#### 18. Kale

1 cup, raw: 0.2 milligram (10 percent DV)

#### 19. Goat cheese

1 ounce, semi-soft: 0.2 milligram (8 percent DV)

#### 20. Chia Seeds

1 ounce (28 grams): 0.1 milligram (3 percent DV)

Solgar Chelated Copper, 100 Tablets - Essential for Collagen Formation - Highly Bioavailable Form - Supports Connective Tissue - Non-GMO, Vegan, Gluten Free, Dairy Free, Kosher -100 Servings



Mens Copper Bracelets Viking Pattern 99.9% Pure Copper Magnetic Bracelet 6.7inches with 6 Powerful Magnets for Effective Joint Pain Relief, Arthritis, RSI, Carpal Tunnel



Get your copper in style! I never take mine off and when I do for any length of time, I can tell the difference! Try it and absorb copper at the amount your body needs!

#### Selenium

## **Recommended Dietary Allowances (RDAs) for Selenium**

Age	Male 1	Female	Pregnancy	Lactation
Birth to 6 months	15 mcg*	15 mcg'	*	
7–12 months	20 mcg*	20 mcg'	*	
1–3 years	20 mcg	20 mcg	3	
4–8 years	30 mcg	30 mcg	3	
9–13 years	40 mcg	40 mcg	3	
14–18 years	55 mcg	55 mcg	g 60 mcg	g 70 mcg
19–50 years	55 mcg	55 mcg	g 60 mcg	g 70 mcg
51+ years	55 mcg	55 mcg	8	

## Science-Based Health Benefits of Selenium

Acts as a powerful antioxidant May reduce your risk of certain cancers May protect against heart disease Helps prevent mental decline Is important for thyroid health Boosts your immune system May help reduce asthma symptoms *Works hand in hand with iodine absorption and should be taken for this purpose* 

## Best dietary sources of selenium

Fortunately, many healthy foods are high in selenium.

The following foods are great sources:

- **Oysters:** 238% of the DV in 3 ounces (85 grams)
- **Brazil nuts:** 174% of the DV in one nut (5 grams)
- Halibut: 171% of the DV in 6 ounces (159 grams)
- Yellowfin tuna: 167% of the DV in 3 ounces (85 grams)
- Eggs: 56% of the DV in 2 large eggs (100 grams)
- Sardines: 46% of the DV in 4 sardines (48 grams)
- Sunflower seeds: 27% of the DV in 1 ounce (28 grams)
- Chicken breast: 12% of the DV in 4 slices (84 grams)
- Shiitake mushrooms: 10% of the DV in 1 cup (97 grams)

The amount of selenium in plant-based foods varies depending on the selenium content of the soil in which they were grown.

Thus, selenium concentrations in crops depend largely on where they are farmed. For example, one study showed that the selenium concentration in Brazil nuts varied widely by region. While a single Brazil nut from one region provided up to 288% of the recommended intake, others provided only 11%.

Therefore, it's important to consume a varied diet that includes more than one good source of this important mineral.

I supplement with 200mcg per day and the brand I purchase is below:

Bronson Selenium 200 mcg Immune & Antioxidant Support Essential Mineral, 250 Vegetarian Tablets



## Chromium

The Adequate Intake (AI) of chromium for ages 9 years and above ranges from 21 to 25 (mcg) per day for females and 25 to 35 mcg per day for men.

For infants and children, the recommended intake is:

- Up to 6 months: 0.2 mcg per day
- From 7 to 12 months: 5.5 mcg per day
- From 1 to 3 years: 11 mcg per day
- From 4 to 8 years: 15 mcg per day

There is no accurate measure of chromium nutritional status, but chromium deficiency in humans is rare.

## Facts on chromium

Here are some key points about chromium. More detail is in the main article.

- Chromium is a mineral that humans need in very small quantities.
- Good sources include broccoli, liver, and brewers' yeast.
- Chromium supplements may enhance muscle mass, weight loss, and glucose control, but researchers are still working to confirm this.
- Nutritional supplements are like medications and those considering taking supplements should use them with caution. Healthful food is the best and safest source of nutrients.

## 1. Grape juice

Grape juice is an excellent source of chromium.

Just 1 cup (240 mL) provides a whopping 7.5 mcg or 21% of the DV.

However, the chromium content in grape juice may vary greatly depending on agricultural and manufacturing processes. This is true of other fruits and vegetables also.

A serving of grape juice also provides 67% of the DV for <u>vitamin C</u>, an antioxidant that helps protect your body from free radical damage. Vitamin C also contributes to immune defense.

What's more, your body generally absorbs a low proportion of the chromium in your diet. However, evidence suggests that consuming vitamin C, or ascorbic acid, helps increase its absorption.

You may enjoy grape juice on its own or add it to a fruit smoothie.

In any case, make sure to opt for a version comprising 100% grape juice with no added sugars. That's because consuming added sugar is linked to type 2 diabetes, heart disease, dental cavities, and obesity.

## SUMMARY

Grape juice is a great source of chromium. One cup (240 mL) provides 21% of the DV. The vitamin C in grape juice may also boost your body's absorption of chromium.

## 2. Whole wheat flour

Eating whole wheat products may help you add more chromium to your diet.

Whole wheat English muffins are particularly high in the mineral. For example, one standard-sized (58-gram) muffin provides 10% of the DV.

Other whole wheat baked goods provide smaller amounts of the mineral but may still help you increase your intake.

For instance, a medium-sized (36-gram) slice of whole wheat bread provides 1 mcg of chromium or 3% of the DV.

Additionally, whole wheat flour is a good source of <u>protein</u> and fiber, two nutrients that help reduce your appetite, which may aid weight loss.

For reference, a 1/4-cup (30-gram) serving of whole wheat flour provides 4 grams of both nutrients.

You can use whole wheat flour as a substitute for all-purpose flour in almost any recipe.

## SUMMARY

Whole wheat products, such as English muffins and bread, may help you increase your chromium intake.

## 3. Brewer's yeast

Brewer's yeast — also called baker's yeast — is an ingredient used in beer and bread making.

It's a type of fungus known as *Saccharomyces cerevisiae*, and it happens to be a rich source of chromium, providing 9 mcg per tablespoon (12 grams), accounting for 9% of the DV.

People also use brewer's yeast as a nutritional supplement to increase a recipe's protein content, boost their energy, or enhance their immune system.

It may also help manage blood sugar markers in people with type 2 diabetes when they take it alongside their diabetes medication.

Stores typically sell brewer's yeast in powder form, which you can add to yogurt, smoothies, or sprinkle on top of a salad.

## SUMMARY

Brewer's or baker's yeast provides 9% of the DV for chromium per tablespoon (12 grams), making it an easy way to boost your chromium intake.

## 4. Orange juice

If you're not fond of grape juice, you could go for orange juice to add chromium to your diet, though it provides lower amounts of the mineral.

A 1-cup (240-mL) serving of orange juice provides 2.2 mcg of chromium or 6% of the DV. That's less than one-third of the content in a serving of grape juice.

However, a serving of orange juice packs 90% of the DV for vitamin C. It also contains other antioxidants, such as flavanoids and carotenoids. Consuming these compounds in orange juice is linked to a lower risk of heart disease and inflammation.

As with grape juice, try to stick to 100% orange juice. Check the ingredient list and avoid varieties containing added sugar.

## SUMMARY

One cup (240 mL) of orange juice provides 6% of the DV for chromium and a wide array of antioxidants that may boost your health.

## 5. Beef

Animal-based proteins are good sources of chromium.

A 3-ounce (85-gram) serving <u>beef</u> provides 2 mcg or 6% of the DV.

Other animal-based protein sources provide less chromium than beef but could still help add more of the mineral to your diet.

These include turkey and chicken breast. A 3-ounce (85-gram) serving of turkey breast provides 1.7 mcg of chromium or 5% of the DV, while the same serving size of chicken breast provides 0.5 mcg or 1% of the DV.

## SUMMARY

One serving of beef provides 6% of the DV for chromium. Other animal-based protein sources with lower chromium levels are turkey and chicken breast.

## 6. Tomato juice

Tomato juice is a highly nutritious and refreshing drink.

A 1-cup (240-mL) serving provides 1.5 mcg or 4% of the DV for chromium.

It likewise boasts high amounts of vitamins, including vitamins A, C, and E. It also contains antioxidants, especially lycopene which is associated with a reduced risk of prostate cancer.

However, canned tomato juice is typically high in salt, which may lead to increased blood pressure in some people.

## SUMMARY

Tomato juice is a nutritious drink that provides chromium and many other nutrients with additional health benefits.

## 7. Apples

Apples are known for being healthy and nutritious, and they contain some chromium, too.

One medium (200-gram) apple provides 1.4 mcg of the mineral or 4% of its DV

Apples are also a great source of soluble fiber  $\underline{r}$  and a group of antioxidant compounds called

polyphenols. These compounds are linked to a reduced risk of heart disease.

Apples are a great on-the-go snack that's available all year round. You can explore different ways of enjoying apples, such as adding them to salads or baking them into chips.

## SUMMARY

Apples are a popular and nutritious fruit that also provides some chromium.

## 8. Green beans

Green beans— or string beans — may also help you increase your chromium intake.

A half-cup (73-gram) serving of green beans contains 1.1 mcg of chromium or about 3% of the DV.

Furthermore, green beans are low in a type of compound called FODMAPs. This stands for fermentable oligosaccharides, disaccharides, monosaccharides, and polyols .

<u>FODMAPs</u> are a group of carbs that arrive in your gut undigested. Your gut bacteria metabolize them, which can lead to bloating, gas, pain, and other digestive symptoms. This may be an issue for people with digestive conditions like irritable bowel syndrome (IBS).

You may boil, steam, or microwave green beans and enjoy them as a side dish or nutritious snack.

## SUMMARY

Enjoying a side dish of green beans may help you increase your daily chromium intake.

## The bottom line

Chromium is a trace mineral that may help regulate your blood sugar and cholesterol levels by helping with the breakdown of carbs and fats.

You can consume it in various foods, including fruits, vegetables, meat, and whole wheat products.

As such, you'll probably get all the chromium your body needs by following a balanced diet.

I have taken chromium for many years especially when I was having blood sugar issues from stress and sometimes poor diet with carbs. I tend to forget to take chromium more recently but will take a couple maybe once a week. I guess that doing keto and carnivore has stabilized my blood sugar making chromium less important for me. It is essential so if you are lacking in diet, you may want to supplement. Keep some on hand as it is great for fast fat loss too! My choices are below...

NOW Supplements, Chromium Picolinate 200 mcg, Insulin Co-Factor\*, 250 Veg Capsules



## Cobalt

Cobalt is an essential trace element for the human body and can occur in organic and inorganic forms. In organic form, it forms an integral part of vitamin B12 and has a substantial role in the formation of amino acids and neurotransmitters.

Food Sources:

Green leafy vegetables such as cabbage, lettuce, spinach, turnips, kale Dried fruits like figs, raisins, apricots, prunes, dates Seafood consisting of fish, oysters, mussel Animal meat produce of liver, beef, kidneys Staple dairy product of milk

## **Deficiency:**

A deficiency condition involving solely the trace mineral cobalt usually does not occur in human beings. As the maximum bodily concentration of the element is as an integral part of vitamin B12 or cobalamin, insufficient intake of cobalt in diet presents illnesses similar to vitamin B12 deficiency disorders, namely pernicious anaemia and macrocytic anemia.

Pernicious anemia, also called Addison's anemia, is characterized by a steep reduction in the number of red blood cells owing to a decline in capability to assimilate vitamin B12, which contains cobalt ions. When the red blood cells become enlarged to an unusually large size, due to insufficient vitamin B12 reserves in the body, then the ailment is termed as macrocytic anemia.

Noticeable indications of cobalt deficiency, in the form of different kinds of anemic disorders. Comprise fatigue, tingling sensations in extremities of hands and feet, besides the nervous system operations being hampered.

## Toxicity:

The incidence of cobalt toxicity is rare. Yet, when it happens, cobalt is very toxic to the heart muscle. It can cause heart muscle disease (toxic cardiomyopathy) after too much exposure. An increase in red blood cells (polycythemia) may be a symptom of too much cobalt. Not treating this issue can cause congestive heart failure.

Too much intake of cobalt may cause enlargement of the thyroid gland (goiter). It can also reduce the activity of the thyroid. Cobalt may also increase blood sugar levels.

Since cobalt is a key part of vitamin B-12, people with Lieber's syndrome, a rare eye condition, should not take it without talking to their healthcare providers. Some forms of vitamin B-12 may lead to vision loss in people with this issue.

I always find it fascinating how everything in nature works in a symbiotic nature and trace elements are no different. The yin and yang of zinc and copper, the cofactors that boost vitamins and some of these trace elements such as cobalt working with vitamin B.

Before writing this section on cobalt, I was unaware of its use in the metabolism. I recall working with the inorganic version in my chemistry experience and only assumed that it was an obscure element like fluoride or lithium. Learning that it is part of the intrinsic factor and building the myelin sheath makes it very important! There is no RDA and it appears far more upside to supplement than not.

I'm blown away that I am just learning how cobalt is instrumental in activating B12 and fighting pernicious anemia! My guess is that you won't hear about cobalt from your doctor either! Could taking in more cobalt instead of iron and drugs be the key to curing many types of anemia and even multiple sclerosis? If we can't build the myelin sheath that protects our nerves, it can develop into MS, along with other degenerative nerve issues.

Many of you like myself have the MTHFR mutation that stops us from using folic acid among other issues related to vitamin B yet I have not run across the suggestion to supplement with cobalt to better absorb it. It does appear that many normal foods contain cobalt but the dose is ambiguous and undefined for the most part. My default is always liver for A, B and so many others so I reiterate how important taking liver capsules is for overall health. I have listed one cobalt supplement below that I plan to order and one of only a couple of everything I have listed that I have not yet tried. Although we may not be deficient on the surface, maybe cobalt is similar to others like D where you may not be deficient but could be much more fortified with more in the diet!



Mother Earth Minerals - Cobalt - 8 Ounce 96 Servings



This concludes the sections on essential vitamins and minerals. The following sections will be devoted to some of my favorite supplements, nootropics and immune boosters plus protein related products.

## **Protein Supplements**

Man cannot live on bread alone is the age old addage but maybe we can modify it to: Man cannot live by bread alone unless he supplements!

Maybe you have read articles over the years how somebody died or became hospitalized by trying to live on protein or diet shakes. It got to the point that companies had to put warnings on their labels to not use as food replacement. They could only suggest that it was a meal replacement.

I would partially agree if it is only protein but on the other hand, there are many complete nutritional drinks on the market that offer potentially more than many people ingest through food! Why is this? First of all, this would disrupt the largest business in the world of food growth, products and bottom line profits. Another, and real issue is the caloric factor. Most of the meal replacement drinks are under 300 calories so getting enough calories could be an issue. I suppose an easy solution would be to drink several per day.

My bottom line take on this issue is that if you purchase a high quality, complete nutrition drink with at least 15 grams of protein, preferably more, this is fine. I think that pressure from the powers that be in big agro demonize this industry unfairly by lumping in protein only powders with the high quality meal replacements. I am not suggesting that you give up food for meal replacements but if food gets scarce, and it could, having a nice backup supply of a high quality meal replacement powder would be smart planning.

I have been a big fan of whey protein as a bodybuilder for many years. It offer high protein in a complete form with the corresponding amino acids. Since I have supplemented heavily over the past several decades, I believe that I could live off the combination of whey protein and supplements and thrive! I like food too much to do this but my point is that if you take all the supplements listed in this guide, and have sufficient protein and calories, you could make it for years in my opinion and do well!

So, man can live by bread along with supplements but will surely become bored with this diet. On the other hand, if for survival or weight loss, this regimen for several months could be the answer!

I will list some of the protein powders, green powders and misc. meal replacements or adjuncts I have used below. Think about how these might work for survival prepping and or weight loss and health boosting for you!



## **Protein** Powders

This section is devoted to the various types of protein powders, not to be confused with meal replacements. I do believe that with the proper supplementation, protein powders can be sufficient to thrive on and give he body the needed protein and amino acids. You will need to decide for yourself, or consider getting several types for your needs. I continue to allude to prepping with my recommendations and suggestions to stock up. If we were in normal times, I wouldn't be suggesting stocking up on anything unless on sale or in short supply.

## Whey Protein

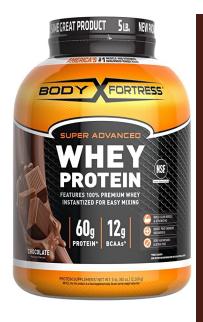
This variety is the most popular among the protein powders in the marketplace. Whey is derived from dairy from the highest nutrient portion. It gets even more intricate with standard, isolate and other production forms that offer various refining versions for additional protein quality.

I have tried many brands and versions of whey protein over the years. Decisions for me have been based on the amount of protein grams per serving and how many servings per container. I will also decide to buy again if the flavor is good. There's nothing worse than spending \$30 plus on a brand that tastes awful! Not that long ago, I purchased a high quality brand that I have used before but never in strawberry flavor. It was on a great sale so I didn't hesitate to buy. The flavor was so bad that after a few attempts, I put it away and never touched it again. I should throw it out.

Other considerations are the amino acid profile and if I want added supplements like creatine. I have listed my past and present purchases below. Again, I spent many hours researching before buying these and they aren't random. As with all my other recommendations, when I have made an error in my selection, or the product did not live up to expectations, I have omitted in my lists. I rarely make any big errors since I research extensively before buying them myself.



# Body Fortress Whey Protein Powder, 60g Protein and 12g BCAA's (per 2 scoops), Chocolate, 5 Lb



Serving Size Servings Per Container	1 Scoop (5 about 45	i0 g)	2 Scor about	ops (100 g 22
Amount Per Serving	%Daily	Value	%D	aily Value
Calories	200		390	
Total Fat	40	5%***	80	10%***
Saturated Fat	20	10%***	30	15%***
Cholesterol	100 mg	33%	200mg	67%
Total Carbohydrate	80	3%***	150	5%***
Dietary Fiber	<1 g	3%***	20	7%***
Total Sugars	30		5g	
Includes Added Sug		0%***	00	0%***
Protein	30 g	60%***	60g	120%****
Calcium	160 mg	12%	320 mg	25%
Iron	1.1 mg	6%	2.3mg	13%
Sodium	190 mg	8%	380mg	17%
Potassium	340 mg	7%	680 mg	14%
Super Recovery Blend	4.50		90	
Creatine (as Creatine Monoh	1.5 g lydrate)		30	
Taurine	1.50		3g	
L-Glutamine	1.50	****	30	

\*\*\*Percent Daily Values are based on a 2,000 calorie diet. \*\*\*\*Daily Value not established.

# CHOCOLATE

## Ingredients

Super Whey Protein Blend (Whey Protein Concentrate, Whey Protein Isolate), Cocoa (processed with alkali), Maltodextrin, Sunflower Lecithin, Natural Flavors, Salt, Cellulose Gum, Acesulfame Potassium, Sucralose.

Contains milk ingredients.



Unfortunately, the prices have skyrocketed on whey protein so my first entry has the basics covered with additional creatine and glutamine and fairly low carb. This one isn't great quality but good enough to get the job done with decent flavors in chocolate and vanilla. I generally prefer a lower calorie mix but for getting high protein and reasonable calories, this will suffice. Currently under \$50 with free shipping. Only 6 months ago, this was around \$35. It appears to be unabated with inflation on price increases so maybe a good time to get stocked up.

## Myprotein® Impact Whey Protein Powder, Chocolate Smooth, 5.5 Lb (100 Servings)



This brand had been my number one go to source for years. It still is a good option, however the prices of whey protein have skyrocketed! Myprotein offers big discounts nearly all the time with coupons. I found up to half off on the internet or through the Bing browser app and others. As of this writing, they have a 30% off directly on their site. Their quality is very good and I like that they sell in bulk sizes up to 11 lbs. I stick with chocolate and vanilla. The specs are good and carbs and calories are low. The bummer is seeing the entire whey protein market go off the rails in price. I was buying the 11 lb sack for around \$70 bucks less than a year ago and now, even with a 30 percent discount, is over \$130. It's across the board and with all brands unfortunately.

Amount Per Serving		%Daily Value*	
Calories	100	Calories from Fat	15
Total Fat	1 g		2%
Saturated Fat	1 g		3%
Trans Fat	0 g		
Cholesterol	65 mg	2	2%
Sodium	40 mg		2%
Total Carbohydrate	3 g		1%
Dietary Fiber	0 g		0%
Sugars	1 g		
Protein	19 g	3	8%
Vitamin A	0%	Vitamin C	0%
Calcium	15%	Iron	0%

Optimum Nutrition Gold Standard 100% Whey Protein Powder, Double Rich Chocolate 2 Pound

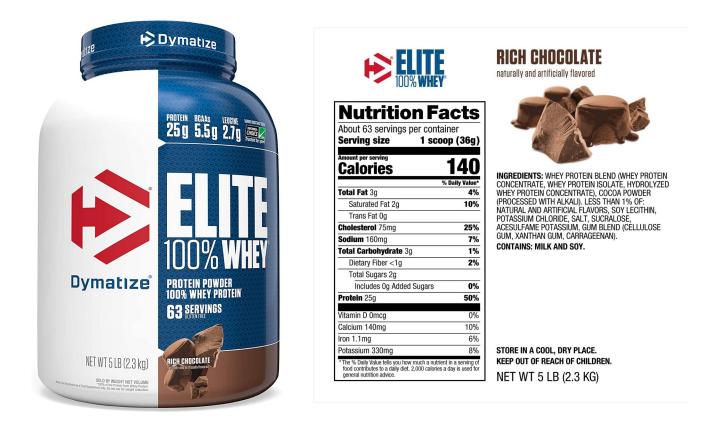


Optimum Nutrition has been one of my favorites for decades. It's low calorie, high protein and low carb and the flavors are delicious! The price as of this writing for 2lbs is in the mid \$30 range which places it in the mid-lower end. Not to belabor the point but this is one of the best overall deals feature for feature and even the cost is lower than the vast majority.

Excellent BCAA profile and it's an isolate form of whey which is the best! No hormones or chemicals so considering all the benefits, I see why they still are considered the top overall whey.

Let me tell you how gas was .35 cents and my first apartment was a hundred bucks:)....sorry, the prices, thanks to Brandon, are very upsetting and going higher so buy now!

#### Dymatize Protein Powder, Rich Chocolate, 80 Ounce



This is also one of my all time favorites. The specs are close to the ON whey but not 100 percent isolate. Carbs and calories are low and high protein rating. As of this writing, the 5lb tub is slightly over \$60 and in the scheme of things, a relatively good deal.

The best part of Dymatize is the incredible flavors! I look forward to the rich chocolate as though it were a dessert! Mmmm...good!

#### Alternative Protein Powder Options

Before moving on to other types of protein and meal replacement drinks, I want to address the other type of dairy called casein.

The story is that casein is much larger proteins so it takes hours to digest. I personally do not use it but have and it is an inferior form sold as a specialty product as though a new invention. It's the curds in curds and whey. The lumpy, unrefined stuff. If you want to try it, the best time to take it is before bed. If you get indigestion, I told you so. With prices so high, I would not waste money on this version personally.

And oh yeah,...Get off my lawn!

Before moving on, I need to address other forms of protein powder in general. Although I have tried alternatives to whey, I cannot personally endorse them other than egg protein. The vegetarian versions are not complete protein so in my mind, why bother? Sure, you can eat or supplement the missing aminos to complete them as complete protein but that defeats the purpose in my opinion.

Pea protein comes closest although falling a bit short. Pea protein is high in muscle-building branch chain amino acids (BCAA), but it is considered an "incomplete" protein because it is low in methionine and tryptophan. In addition, peas are high in purines that can be inflammatory for many people.

I have tried on and off for many years and although a better than nothing choice, it falls short and requires additional supplementation and therefore, I am not posting buying options in this guide.

I will however endorse DIY pea and especially egg white protein powders and will cover this next.

You may store peas for prepping survival and soaking and dehydrating them can turn peas into a useful protein powder. No need to buy it. Again, I do not endorse buying pea protein in general but in a pinch, you can make your own and sustain life for sure.

Better yet, DIY egg white protein. Egg is neck and neck with whey as far as complete protein and probably more digestible. Unfortunately, egg would surpass whey if it could be made with the yolk. Over consumption of egg whites only is reported to inhibit biotin and supplementation is beneficial. Egg white is a complete protein but without the yolk, lacks some of the great nutrients in spite of essentially filling the complete protein bill. Whey has a slightly better BCAA profile.

I suggest visiting the following link on our DIY supplements article and apply this knowledge to making egg white and pea protein. <u>DIY Supplements - Save up to 66% off Retail Vitamins!</u> (holistichealthandfitnesstips.com)

Pea protein is easy if you use typical green peas instead of the yellow. Pretty much the same thing and much easier to find and use frozen peas. I have made a few batches by simply placing the peas in the dehydrator and once crisp, grind up, add splenda to taste and cocoa or vanilla powder. It's simple and easy and can save a few bucks over buying premade.

Egg protein is only slightly more involved in that you need to cook the eggs. The cost and availability of eggs is yet another issue that the globalists are hacking into. Millions of chickens were euthanized this year under the guise of disease precaution! You may have already noticed the shortage of eggs in your supermarket. Prices have skyrocketed for most.

As much as I dislike referring you to a globalist organization like Walmart, they still have reasonable prices, at least in my city, on eggs. You can buy low quality eggs in a 60 pack for under \$15 and cage free, no hormone brands for under \$4 per dozen. I suggest cooking up a batch of scrambled eggs by the dozen or so at a time and putting into the dehydrator. BTW, you are cooking egg whites only! Save the yolks for consumption later.

After the egg whites are fully dehydrated in 12 plus hours, you grind up and store in sealed bags. Again, you can add slpenda, and or glycine or other sugar substitute along with flavoring. I would stick to vanilla so you can use for pancakes and other purposes but cocoa is fine for drinking too.

If you have or buy a heat sealing machine I have listed in the article link I referred to, you can save these mixes for up to a year or more.

So, that's it for egg and pea protein and suggest sticking with whey if buying. Making egg white protein powder is my next choice and pea is third. Stay away from casein and other vegetarian powdered protein powders.

Lastly, we have the lesser known and manufactured beef protein powder. On paper, a great option but I simply cannot digest it! I tried and just couldn't get past the stomach issues so I am hesitant to recommend.



The story is a bit different for meal replacement shakes for vegetarian versions as they can shore up the incomplete issue with added supplementation within their formulation.

So, let's explore the meal replacement drinks that I have tried or currently use and wrap this protein section up.

The grand finale is my more esoteric supplements for several benefits from brain power to immunity. There is no better time to get our health in order and functioning tip top!

We may be entering a very challenging period with potential food scarcity and real or lab created viruses.

In case you aren't sure, the globalist cabal is trying to kill us! Don't let these pencil necked psychopaths take control.

Let's be at our best and kick some you know what!

# **Meal Replacement Drinks/Powders**

This section delves into my top selections for complete meal replacement along with "green powders" that may not include protein.

If you want an all in one type solution, I have solutions but if you want more ingredient heavy solutions minus the protein, we have listed these also. You can add protein from one of the selections above or, oh yeah, food.

As mentioned earlier, the all in one solutions for meal replacement have not been embraced by the medical field and most nutritionists. I read somewhere that it takes 17 years on average for new and proven therapies to become accepted by the medical profession.

I read where citrus fruit was introduced to combat scurvy in the 1500s and in spite of apparent success, was shelved for hundreds of years! Each time a medical practitioner would show how something like a lemon could ward off scurvy, the opposition would refute with incredibly stupid and unfounded reasons like scurvy was from moisture in the air!

My point is that meal replacement drinks may very well be in this purgatory for decades. I find it so odd that the medical industry is so bullheaded and adverse to change when you would think that they would constantly be looking for solutions. Unfortunately, they have been brainwashed since medical school and it's all about pharmaceutical drugs with patents and natural any longer.

Regardless, I truly believe that a complex meal replacement drink for prepping is an excellent idea. Hey, NASA sent astronauts up with Tang in the 60s when I was a kid and we had to have Tang instead of orange juice for breakfast! It probably had ascorbic acid and sugar and food coloring yet it was totally embraced and plugged on TV that everyone should be drinking this amazing powder that the astronauts used! Lot's of money made for pretty much a vitamin C pill with sugar.

I recall maybe 20 years or so ago how any company that came to market with a purported meal replacement was scorned and forced to stop or rename the product saying, this is not for meal replacement. Granted, they were lacking but you could see the handwriting on the wall. I think that this crackdown has eased with some of the globalist approved diet companies coming out with their versions.

The main drawback of drinking liquids for nutrition is that it is easy fo take in too many calories. They go down easy, taste good and your stomach does not work as hard digesting them. For this reason, it may still be best to mix with meals and not go nuts on a liquid meal replacement diet for the long term unless during a disaster.

I find myself consuming several protein shakes during the day and the calories can add up fast especially if eating normally. You will need to decide for yourself on how to integrate meal replacements but for prepping, it's a no brainer for me!

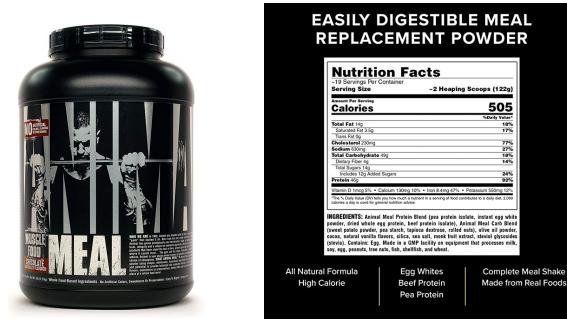


Garden of Life Raw Organic Meal Replacement Shakes - Chocolate Plant Based Vegan Protein Powder, Pea Protein, Sprouts, Greens, Probiotics, Dairy Free All in One Shake for Women and Men, 28 Servings



This is a great example of a pea protein based powder being a complete protein with all the incredible organic nutrients added. I have used this product and others by Garden of Life and recommend it.

Animal Meal - All Natural High Calorie Meal Shake - Egg Whites, Beef Protein, Pea Protein, Chocolate, 5 Pound



This one by Animal is the real deal especially for bodybuilders and preppers. High calorie with all three top protein sources! I found this one digestible maybe from the enzymes in egg and pea proteins plus all the great supplemental additives. This should be the preppers choice as it checks all the boxes!

Vegan Protein Meal Replacement Powder by Orgain - 20g of Protein, Certified Organic and Plant Based, No Gluten, Soy or Dairy, Non-GMO, Creamy Chocolate Fudge, 2.01lb



This is a pretty good one overall and one of the lower cost options. Plant protein with a good variety of supplements to bring a complete protein to you. I found the flavor a bit lacking but decent.

LABRADA Nutrition – Lean Body High Protein Meal Replacement Shake, Whey Protein Powder for Weight Loss and Muscle Growth, Chocolate, 2.47LB Tub



I have used several Labrada products over the years and this one is pretty good. High whey protein with a good variety of vitamins and minerals plus the flavor is good. A little light on supply with a container good for only around half a month.

# **Supplements Addendum**

This is the final section of our guide but no less important. I found that getting all the essential vitamins and minerals optimized made the biggest difference in my health.

For years, I had it backward by focusing on the peripheral supplements for results and this was an incorrect approach. Yes, you can get away with more nutrient mistakes when younger but I still paid the price. My supplementation regimen decades ago consisted mostly of specialized compounds for bodybuilding. Artificially created pro-hormones, fat burners, herbs and occasionally good but low on the scale of importance molecules.

With a high stress career, less than optimal diet and taking all these supplements, I killed my adrenal glands and was running on fumes. I was bodybuilding and looked good physically but was starving for quality nutrients. It wasn't until less than ten years ago that I finally figured this out!

If you don't have your essential vitamins and minerals optimized, you are building health on a house of cards. The boring basics turned out to be 90 percent of the equation! Once I figured it out and got up to speed after a couple of years, my entire metabolism became optimized and I could actually feel the change! Take it from a veteran of health research and trial and error to focus on the basics.

With that said, there are a number of great supplements that I recommend in this section. After building your solid base, you can focus on the peripheral supplements that will work even better now that you are optimized!

Many, if not most of the following will improve your immune system. This is not by coincidence as I realize that there are a lot of you concerned with viruses and staying healthy in uncertain times. This is smart and as discussed, a great priority for prepping. Create great health and your chances of weathering the storm are much higher.

Mainstream media and big pharma have been demonizing some of the supplements on my list and you have to ask yourself, why? They have attacked FDA approved compounds and supplements that have been safely used in some cases for over 50 years! Use your common sense and realize that whatever works is being attacked and this is not only part of the depopulation globalist plan but pure greed to sell the drugs that make them money! You aren't in Kansas any longer folks!

One of my recommendations, N Acetyl Cysteine, or NAC, got attacked within the last year by big pharma after being on the market since the 60s and award winning! Amazon and others fell in lock step and removed NAC from their websites even though there has been no negative reports or banning by the FDA! Just say bad with no evidence and ban it! NAC works spectacularly for immunity and one of the safest supplements ever! I mention this one in particular because when I wrote an article on my own website and posted it, the links to NAC suppliers had been crossed out! Incredible! I am not talking about social media banning or youtube but my own private website getting censored on a completely legal and viable supplement that has helped millions of people over the decades! Just writing NAC may get this section banned but it will be difficult since it will be published in PDF.

# **Supplements for Immunity**

Let me put your mind to rest if you have plowed through this guide to this point and say that you have already done the hard work. All of the essential vitamins and minerals in the previous sections are the main keys for your immune system. If you optimize these, your immune system will be robust and ready for just about anything! So, there is no need to now buy a slew of other supplements in addition to the essentials.

There are a few that are so good and potentially life saving for states of being infected with virus or doubling down for prevention.

Let's look into these gems below. <u>N Acetylcysteine</u>

- 1. Essential for making the powerful antioxidant glutathione
- 2. Helps with detoxification to prevent or diminish kidney and liver damage
- 3. May improve mental health conditions and substance use disorder
- 4. Helps relieve symptoms of respiratory conditions
- 5. Boosts brain health by regulating glutamate and replenishing glutathione
- 6. May improve fertility in both men and women
- 7. May stabilize blood sugar by decreasing inflammation in fat cells
- 8. May reduce heart disease risk by preventing oxidative damage
- 9. Ability to boost glutathione levels may improve immune function

N-acetylcysteine (NAC), a precursor of the antioxidant glutathione, has been used to loosen thick mucus in the lungs and treat acetaminophen overdose for decades. However, NAC can also boost the immune system, suppress viral replication, and reduce inflammation. This statement is from the NIH

#### Dosage

There is no specific dietary recommendation for cysteine because your body can produce small amounts.

For your body to make the amino acid cysteine, you need adequate amounts of folate, vitamin B6, and vitamin B12 These nutrients can be found in beans, lentils, spinach, bananas, salmon, and tuna. While most protein-rich foods — such as chicken, turkey, yogurt, cheese, <u>eggs</u>, sunflower seeds, and legumes — contain cysteine, some people choose to supplement with NAC to increase their cysteine intake.

NAC has low bioavailability as an oral supplement, meaning that your body does not absorb it well. The accepted daily supplement recommendation is 600-1,800 mg of NAC (<u>47</u>).

NAC can be administered intravenously or taken orally, as an aerosol spray or in liquid or powder form. Top nootropic experts say that 1800 mg is a therapeutic dose spread throughout the day.

This incredible molecule has been around for decades over the counter. Many of you may know that glutathione has been called the master antioxidant. It has been found that precursors, mainly NAC, activate glutathione better than exogenous glutathione supplementation! This means that by simply taking NAC, your master antioxidant is super charged and it does its magic killing off virus issues and lung congestion!

Wow, something that you would consider as number one on the list is being suppressed by our government and big pharma?! Here is a source for <u>NAC that I buy from called Vitacost</u>.

## TMG

#### PERFORMANCE AND HEALTH BENEFIT OF TRIMETHYLGLYCINE

1. HEART HEALTH Homocysteine is an amino acid found in blood and has been linked to higher risks of heart disease. Trimethylglycine helps lower the levels of homocysteine. Lowering homocysteine levels has been linked to lower risks of heart disease and strokes as high levels of homocysteine can cause arterial plaque formation which causes our arteries to harden and get clogged.

2. DIGESTION The stomach has to have the right level of acidity to digest food properly. If your acid levels are low, the body will not be capable of breaking down food and absorbing its nutrients. This can increase the risk for nutrient deficiencies as well as problems like bloating, acid reflux, constipation, and indigestion.

TMG in the form of Betaine HCL and has been shown to help improve symptoms in volunteers with low acidity. Moreover, maintaining stomach acidity can also lead to healthier digestion as well as a more efficient nutrient absorption.

3. LIVER HEALTH Symptoms of obesity, alcohol abuse, and even diabetes can cause a massive uptick of fatty acid build up in the liver. While the liver naturally retains some fat, especially as an extra energy reserve in case of famine, too much can lead to fatty liver disease.

Studies show supplementing with TMG can help reduce the amount of fatty acids broken down by the liver. In turn, this reduces fatty acid accumulation. Some scientists also note how some patients have recovered from liver damage by taking TMG.

4. MUSCLE BENEFITS An ergogenic is an ingredient or substance supplemented to improve physical performance, recovery, or stamina.

TMG is right up there with some of the recently trending ergogenics in formulas and with good reason. Studies demonstrate TMG's ability to boost muscle power, endurance, and even promote muscle protein synthesis – the very process required to put on lean mass. It's also been shown to accelerate fat loss, especially in obese patients. [6]

TMG also functions similar to creatine and even promotes creatine synthesis in the body. This makes TMG a good creatine support ingredient in many gym formulas or stacks.

5. BOOST SAM -E LEVELS One little known benefit of taking TMG is increasing our body's Sadenosylmethionine (SAMe production.

SAMe is a component required in the synthesis of Phosphatidylcholine. Phosphatidylcholine is a compound mainly known for its brain health and cognitive benefits. Other than brain health, SAMe can also be a mood enhancer, boost liver health, and support joint health and recovery.

6. METHYL DONOR As we mentioned earlier, TMG is a molecule with three methyl groups. These methyl groups are passed around inside the body through a process known as methylation. Methylation is critical for many physiological processes, and the most important is the methylation of homocysteine to form methionine.

Methionine is a major component of creatine synthesis. Studies have shown that the presence of high levels of creatine is known to boost muscle strength levels in athletes.

7. OSMOREGULATOR Balancing fluid levels is vital for human survival as fluid imbalances can

cause shrinking or bloating of cells, causing internal tissue or organ damage. TMG can act as an osmolyte, a compound or substance that functions to balance fluid levels inside and outside of cells. [11]

#### SUMMARY

TMG is a naturally occurring substance in the body that can also be consumed through beets, spinach, and quinoa. TMG's role in the body are primarily for cellular fluid balance and methylation, but there are also benefits to supplementing TMG. Research has proven the benefits of supplementation for heart health, detoxification, muscle growth, and healthy digestion. It can also act as an ingredient that supports creatine levels in the body, boosting power output and delaying fatigue during exercise.

TMG is available in either capsule or powder form

I have been taking TMG for ages and believe in the benefits of betaine. The current trend is to buy beet root concentrate for betaine but it is much more expensive.

Give this one a try, it's the one I have been using for the last few years TMG by Nutricost

### R Alpha Lipoic Acid

#### **BENEFITS OF LIPOIC ACID**

Based on evidence from animal and human studies, lipoic acid offers the following essential health benefits:

- Reduces oxidative stress in the body via powerful antioxidant activity1,3-5
- Improves several components of the metabolic syndrome—a combination of risk factors that increases one's risk for diabetes<sub>6</sub>
- Reduces blood pressure
- Reduces insulin resistance
- Improves the lipid profile
- Reduces weight
- Increases insulin sensitivity<sup>8</sup>
- Improves diabetic neuropathy9,10
- Protects against cataract formation11
- Improves visual function in glaucoma12
- Helps prevents retinal cell death when combined with vitamin E in retinitis pigmentosa13
- Reduces brain damage after a stroke<sup>15</sup>
- Prevents bone loss, possibly through an anti-inflammatory effect19-21
- Removes toxic metals from the body<sub>22,23</sub>
- Reduces frequency and intensity of migraines<sub>24</sub>
- Improves skin texture<sub>25</sub>
- Chelates metals

I use the R version although it has a short shelf life, it is very potent! This is a winner! <u>Buy Here</u>



## **Acetyl L Carnitine**

Acetyl-L-carnitine is also known as ALC. It is used by some people with high blood sugar to help with cholesterol as well as nerve pain, such as tingling in their hands and feet. Others have used it to help stop cell damage. It may also help to improve appetite and increase energy levels. Some people use it to improve mood. People with blood vessel problems in their legs have used it to help them walk better and to walk with less pain. ALC may also help people with low carnitine levels to have a more normal level in their blood.

It works well with Alpha Lipoic Acid listed above. This also helps with fat burning and is a component of many fat loss formulations. It comes in liquid and pill form. I have used both but feel that the liquid is more absorbable. Here is my suggestion – <u>Buy Here</u>



### Cod Liver Oil

This is an old school winner! My mother used to have us take a spoonful in the morning and it tasted awful but now, they have lemon flavored and it is almost pleasant! Taking a tablespoon of cod liver oil every day is magical. You get the omega 3's and the immense benefits of liver with high vitamin A, B and cardiovascular benefits. This is a must have and your health will thank you!

Cod Liver Oil Liquid | 16 fl oz | Pack of 3 Bottles | Lemon Flavor | Norwegian | Non GMO, Gluten Free | by Carlyle



This is a great buy that includes three bottles of real Norwegian high grade cod liver oil

### Spirulina & Chlorella

Organic Chlorella Spirulina Tablets, 3000mg Per Serving, 720 Counts, 4 Months Supply, 50/50 Blend Superfood, No Filler, No Additives, Cracked Cell Wall, Rich in Vegan Protein & Chlorophyll



- Raw Organic Spirulina Chlorella Tablets (Broken Cell Wall), Made from Organic Chlorella Spirulina Powder, 3000mg Per Serving, 720 Tablets (4 Months Supply), 2 in 1 Formula, Filler & Irradiation Free, Green Algae Super Food and Vegan Friendly
- Premium Chlorella Spirulina Organic Supplement, Loaded with Vegan Protein, Chlorophyll, Fiber, Amino Acids (Omega 3 6 9, GLA, Arginine), Fatty Acids, Immune Vitamins (Vitamin A, Vitamin B2, Vitamin B12, Vitamin C, Vitamin K, Biotin), Minerals, and Easy to Swallow.
- Supports Energy, Colon Health, Digestive Function and Immune System.
- No GMOs, No Additives, No Preservatives, No Artificial Colors, No Flavors, No Soy, No Fillers and No Gluten.
- Lab Tested for Purity and Safety.

I have been using Spirulina for years and it is a true superfood! More recently, I found this combination of spirulina with chlorella making it a dynamic duo! These algae extracts compliment each other! This could also be a great prepping item!

Checkout this article I wrote a while back on the specific benefits of these superfoods!

https://holistichealthandfitnesstips.com/two-green-superfoods-you-need/



# Oregano Oil

### 10 benefits

Oregano oil may have the following health benefits:

#### 1. Fighting bacteria

Thanks to the high levels of carvacrol, oregano oil may help fight certain types of bacteria.

For instance, *Staphylococcus* is a common type of bacteria that causes staph infection. Some strains occur naturally in the body, but when the bacteria grow too quickly, it can cause bothersome symptoms.

<u>Research</u> shows that carvacrol is effective in eliminating the bacteria *Staphylococcus aureus* and *Staphylococcus epidermidis*, two common causes of infection.

Taking oregano oil supplements or rubbing it on the skin may help a person make use of these antibacterial effects.

Researchers are also exploring the use of oregano oil for antibiotic-resistant bacteria. The authors of a study in *Frontiers in Microbiology*Trusted Source found that a combination of oregano oil and silver nanoparticles effectively eliminated all the bacteria they tested.

#### 2. Treating small intestine bacterial overgrowth (SIBO)

Oregano oil may help treat chronic bacterial issues, such as SIBO. People with SIBO experience gastrointestinal problems due to an overgrowth of certain bacteria in their intestines.

A <u>2014 studyTrusted Source</u> found that herbal remedies, including one that contained high levels of both carvacrol and thymol, were effective tools in treating SIBO.

Exploring the individual effects of each compound will require more research, but these initial findings may be promising.

### 3. Treating fungal infections

Oregano oil also appears to be a potent antifungal agent thanks to high levels of thymol.

<u>Research from 2015</u> found thymol to be an effective treatment for common *Candida* fungal infections.

Candida causes several types of infections, including:

- oral thrush
- yeast infections
- infected toenails or fingernails
- athlete's foot

The research was conducted in test tubes, however, and determining oregano oil's effectiveness will require more studies in humans.

### 4. Providing antioxidants

Oregano oil is also a potent antioxidant. Antioxidants help protect the body from damage caused by oxidative stress and free radicals.

Oxidative stress may lead to DNA and cell damage. Oxidation may also play a role in other issues, such as arthritis, atherosclerosis and some cancers .

Thymol and carvacrol are powerful antioxidants that may help reduce oxidation. The researchers suggested that further studies explore safe doses for regular use.

#### 5. Reducing inflammation



Oregano may have anti-inflammatory properties.

Some sources claim that oregano oil may help reduce inflammation. The compound carvacrol shows anti-inflammatory effects in both animal models and in vitro studies.

Research from 2017 looked at a variety of investigations into carvacrol's anti-inflammatory effects.

In one study on mice, the compound prevented obesity by affecting the genes involved in inflammation. In another animal study, the compound reduced swelling.

While the results show promise, the researchers have called for more tests on humans to determine a safe dosage.

#### 6. Healing wounds

Applying diluted oregano oil to the skin may help protect smaller cuts and scrapes on the skin as they heal.

Compounds such as thymol and carvacrol could protect these types of wound from bacterial infections.

### 7. Repelling insects

Both carvacrol and thymol may be effective insect-repellents. In 2017, that these compounds repelled some ticks and mosquitos. The research included test tube studies and those with human participants.

More research will help confirm this potential benefit, but rubbing diluted oregano oil on the skin may be a natural way to help repel insects.

#### 8. Relieving pain

There is some evidence that oregano may be an effective pain reliever. An found that an extract of oregano provided pain relief.

These results were dose-dependent — the more the animals took, the more pain relief they felt.

Importantly, the researchers used a water-based extract, so the oil may not provide the same results. More research in humans could help determine an appropriate dose.

#### 9. Aiding weight loss

Oregano oil may also be a helpful tool for people looking to lose weight have found that carvacrol, the main compound in oregano oil, disrupts part of the process that leads to the creation and accumulation of fat tissue.

More direct research may help provide additional evidence for these claims.

### 10. Fighting cancer

Some sources claim that oregano oil may help fight some cancers notes that the essential oil from oregano helps prevent some types of colon cancer and breast cancer from growing in test tubes.

The oil also appeared to inhibit the growth of some lung cancer and prostrate cancer cells. Much of the research in cancer comes from test tubes or animal models, so people should view the results with caution and never use oils as a replacement for medical treatment.

This has been a life-saver for me and recommend that you have this in your arsenal for not only health but prevention and eradicating infections. I have had a tendency to get yeast related infections in my ears and mouth. Using oregano oil is miraculous and knocks it out fast! Many times it takes only a couple of hours! I strongly recommend the following product as it is lower cost than many but at the right dilution. If you suffer from any yeast related issues, this is the answer and another great prepper antiseptic that could come in very handy! Check it out on the next page



North American Herb and Spice, Juice of Oregano, 12 oz



#### Ivermectin

lvermectin – Overview
https://www.pushhealth.com/drugs/ivermectin

Ivermectin is a medication used for treating certain types of skin lesions and parasitic infections. People who might need an ivermectin prescription, including ivermectin tablets and ivermectin cream, can use Push Health to connect with a licensed medical provider who can prescribe ivermectin medication, including ivermectin for humans, ivermectin 3 mg tablets, and ivermectin pills, when appropriate to do so.

Request Oral Ivermectin 3 mg »

#### What Is Ivermectin Used For?

Ivermectin prescription medication is a semi-synthetic medication that belongs to a class of antiparasitic medications known as avermectins - a different class of medications when compared to antibacterial agents such as <u>moxicillin</u> and <u>metronidazole</u> (Flagyl). Ivermectin is produced from fermentation processes related to the bacterium Streptomyces avermitilis. Ivermectin medication is utilized in both ivermectin cream (Soolantra) and ivermectin tablet (Stromectol) forms. Ivermectin cream is used in treating inflammatory lesions of rosacea. The mechanism of action in treating skin lesions is unknown although ivermectin medication may affect ion movements. Ivermectin tablets are used for treating certain types of parasitic infections, including strongyloidiasis and onchocerciasis (also known as river blindness). Ivermectin medication may also be used in the treatment of severe forms of scabies. Ivermectin should not be used intravaginally, orally or in the eyes. Ivermectin may also have <u>antiviral</u> properties but it is not currently approved by the FDA for that use. Ivermectin was originally isolated in Japan.

I ordered online in late 2020 and after filling out a form, was given a prescription that I had filled at my local Walgreens. When I went to pickup my prescription, the attendant, an older woman, walked over to a bag that apparently was my filled prescription and stopped to discuss something with another female employee. I couldn't make out the discussion but sensed their disagreement on my prescription. Sure enough, the older lady returned to tell me that filling this drug in Arizona was illegal! I responded saying, that's nonsense since you have already filled the prescription ordered by a doctor! She fumbled and responded with, well, we can't fill the quantity you requested! I said, that's odd, you already filled it and I have no idea what the quantity requested was since, once again, it was handled by my doctor! She stuck to her false story so I said, how many can you fill to which she fumbled again and came back with, half your order. It turns out the order was for 24 tablets and she was offering to fill 12! It's a 6 pill, 3 mg per tablet dose so I was being offered two doses! I said, fine, fill my order. She turned back to take care of my order and half way there, she stopped and turned back to tell me, sir, I have to warn you that this is a very dangerous drug! I simply responded, please fill my order. When she returned with my order after a few minutes, she rang it up and said, that will be \$125 and change! Wow, I said, you gave me the special deal didn't you! Unbelievable!

So, that was the scene back then but suspect that this insanity may have eased. Ivermectin is a great prophylactic for any illness along with covid and do not be deterred by the false propaganda. This was an award winning drug introduced a quarter century ago for humans, not animals. They have since used for animals to deworm. This is a good prepper drug to keep on hand.

## **Colloidal Silver**

<u>Premium Colloidal Silver Spray • 40ppm 3.4 fl oz • Optimal Concentration Formula, Smaller</u> <u>Particles, Better Results • Laboratory Certified • Liquid Silver with Free Spray Bottle to Fill &</u> <u>Ebook</u>



•••• POWERFUL COLLOIDAL SILVER ••• Just two ingredients. Yes, really. All we use to deliver you premium silver colloidal is ultrapure water & 40ppm silver. We have carefully formulated our colloidal silver liquid to make sure you are receiving an optimal concentration. No fillers, no impurities, just pure, nature-derived silver colloidal. We only use the smallest silver particles. Why? The smaller the particles, the better the results.

•••• MORE THAN JUST COLLOIDAL SILVER ••• Our mission as a team is to impart our love and knowledge of colloidal silver to you. The free E-book included with every purchase gives you an indepth insight into the incredible world of Colloidal silver and how it can improve your life. The best part? All orders arrive with a beautiful 30ml spray to fill to conveniently take your colloidal silver with you anywhere. A handy measuring cup included makes sure you always pour the correct amount.

This is a great alternative to antibiotics and a definite prepping item! I have used for infections and gum inflammation and it knocks it out fast!

The wealthy royalty from centuries ago knew the value of silver and the saying, born with a silver spoon in his mouth came from their awareness of the value of silver on illnesses! Don;t be dissuaded by propaganda and get colloidal silver!

# Summary

Well folks, that's my guide for essential vitamins and minerals, protein powders and specialty supplements. I hope that you found it useful and an aid to helping you strengthen your health and immunity along with disaster prepping!

I have spent years researching and doing trial and error on myself in bringing this guide to you. Each suggestion took me time to research before I ordered so I would estimate that if you take my suggestions, it will save you days, maybe weeks of research overall.

It's not in my makeup to randomly buy supplements without research. I am the same with food labels and basically anything I purchase. Having owned retail businesses for decades, I want to know who, what, when, where, and how as it's ingrained in me.

I truly enjoy helping others and always have. I get great pleasure knowing that I have helped or enlightened someone from my research and knowledge. I have had more than a few former employees tell me years later how my training allowed them to create fruitful careers.

Please share this guide with anyone you think may benefit and thanks again for reading!

Dave Moody https://holistichealthandfitnesstips.com