



Rebalance

# SUPPLEMENTS

*to improve your immune health*

COVID TIME



BY JULIA BARTROP

# INTRODUCTION

In today's society all we hear is about vaccines and drugs to help with our health, but what about using Food as Medicine - the way nature intended for us to assist with our overall health, boost up our immune system and help us to prevent illness and increase our energy?

Chinese Medicine utilises food as medicine as one of its core practices - it keeps us in balance and prevents disease.

In general, food as medicine also moves with the seasons.

It is important that we eat food that is in season, as well as using spices and herbs that grow in the season we are in.

Nature has provided us with everything that we need - we just need to go back to basics.

I have included some vital minerals and vitamins in the following pages that are crucial for our overall health, to ensure that we can assist our bodies to combat the effects of stress, sleep disturbances, low immunity/mood, and to keep us healthy.

I have provided you with information on why we need this mineral or vitamin and how we can use it to aid with covid 19 - to help us if we do become infected or to assist with natural immune building and overall prevention of illness.

I hope you find this useful.

If you have any questions, please don't hesitate to contact me.

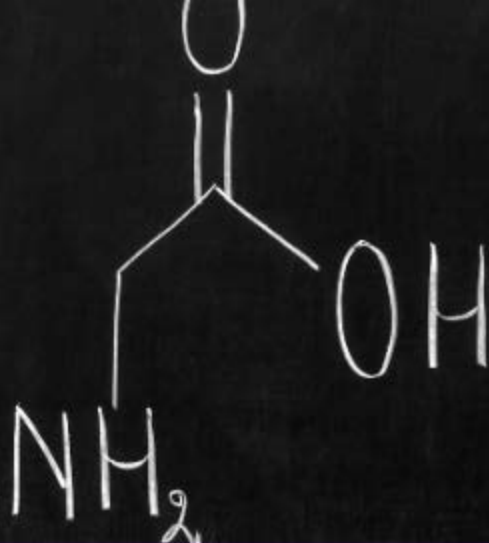
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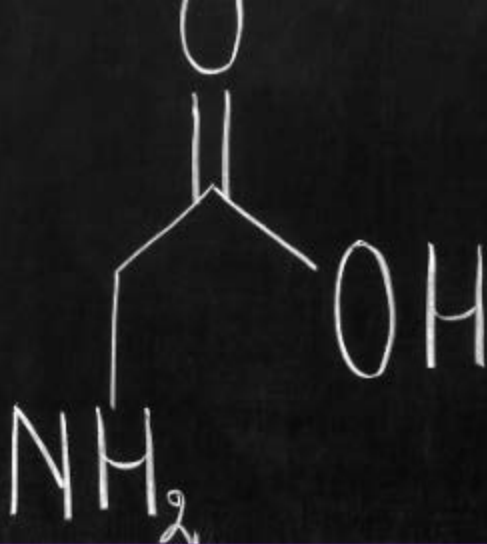


# GLYCINE

Patients with severe forms of COVID-19 often develop acute respiratory distress syndrome (ARDS) associated with high levels of proinflammatory cytokines and damage of lungs and other organs. A special feature in these patients is thrombotic events in the micro- and macro-vasculature. Owing to the lack of a specific and efficient treatment against COVID-19, lowering of this "cytokine storm" is a further proposed strategy.

Glycine is the major agonist of glycine receptors (GlyR), which are chloride channels that hyperpolarize cell membranes of inflammatory cells such as macrophages and neutrophils, turning them less sensitive to proinflammatory stimuli. In addition, glycine possesses a cytoprotective effect, improves endothelial function, and diminishes platelet aggregation.

Reference: <https://clinicaltrials.gov/ct2/show/NCT04443673>



# GLYCINE

Glycine is an amino acid, one of 20 used to make proteins in the human body. The body produces it naturally. Glycine is also found in high-protein foods such as: Meat. Fish. Dairy products. Legumes.

## Top 9 Benefits and Uses of Glycine

1. Needed to Produce a Powerful Antioxidant
2. A Component of Creatine
3. The Main Amino Acid in Collagen
4. May Improve Sleep Quality
5. May Protect Your Liver From Alcohol-Induced Damage
6. May Protect Your Heart
7. May Aid People With Type 2 Diabetes
8. May Protect Against Muscle Loss
9. Easy to Add to Your Diet

Supplementing with glycine is safe in appropriate amounts. Studies have used up to 90 grams of glycine per day over several weeks without serious side effects. For comparison, the standard dose used in studies is about 3-5 grams per day.

Reference:

<https://www.healthline.com/nutrition/glycine>



# VITAMIN C

Vitamin C is perhaps the most popular supplement taken to protect against infection due to its important role in immune health.

This vitamin supports the function of various immune cells and enhances their ability to protect against infection. It's also necessary for cellular death, which helps keep your immune system healthy by clearing out old cells and replacing them with new ones.

Vitamin C also functions as a powerful antioxidant, protecting against damage induced by oxidative stress, which occurs with the accumulation of reactive molecules known as free radicals.

Additionally, it improves symptoms in people with severe infections, including sepsis and acute respiratory distress syndrome (ARDS) resulting from viral infections.

Reference: <https://www.healthline.com/nutrition/immune-boosting-supplements#3.-Vitamin-C>



# VITAMIN C

## 7 Impressive Ways Vitamin C Benefits Your Body

1. May reduce your risk of chronic disease
2. May help manage high blood pressure
3. May lower your risk of heart disease
4. May reduce blood uric acid levels and help prevent gout attacks
5. Helps prevent iron deficiency
6. Boosts immunity
7. Protects your memory and thinking as you age

Vitamin C is a very important nutrient that's abundant in many fruits and vegetables. Interestingly, some claim that vitamin C supplements provide benefits beyond those that can be obtained from the vitamin C found in food.

It's nearly impossible to consume too much vitamin C from food. However, if you're supplementing with this vitamin, you can minimize your risk of getting too much by taking no more than 90 mg per day if you're a man, or 75 mg per day if you're a woman.

Reference: <https://www.healthline.com/nutrition/side-effects-of-too-much-vitamin-c#dosage>



# VITAMIN D

Several recent studies have shown that people with low levels of vitamin D are more likely to test positive for the virus than those with normal levels.

Other research shows that hospitalized patients with an often-fatal COVID-19 complication – acute respiratory failure – had extremely high rates of vitamin D deficiency.

Vitamin D is a fat-soluble nutrient essential to the health and functioning of your immune system. Vitamin D enhances the pathogen-fighting effects of monocytes and macrophages – white blood cells that are important parts of your immune defense – and decreases inflammation, which helps promote immune response.

Vitamin D has been highly researched in connection with COVID-19 because of its effect on the immune system. Studies have shown that Vitamin D can expedite healing and stall inflammation in the respiratory system

Reference: <https://www.healthline.com/nutrition/immune-boosting-supplements#1.-Vitamin-Dsupplements#3.-Vitamin-C>



# VITAMIN D

## The Benefits of Vitamin D

Vitamin D is sometimes called the "sunshine vitamin" because it's produced in your skin in response to sunlight. It's a fat-soluble vitamin in a family of compounds that includes vitamins D-1, D-2, and D-3.

1. Vitamin D fights disease
2. Vitamin D reduces depression
3. Vitamin D boosts weight loss

The Institute of Food and Agricultural Sciences reports new recommendations based on international units (IUs) per day. IUs are a standard type of measurement for drugs and vitamins. IUs help experts determine recommended dose, toxicity, and deficiency levels for each person.

children and teens: 600 IU  
adults up to age 70: 600 IU  
adults over age 70: 800 IU  
pregnant or breastfeeding women: 600 IU

Reference: <https://www.healthline.com/nutrition/immune-boosting-supplements#1.-Vitamin-Dsupplements#3.-Vitamin-C>





# VITAMIN D

In winter we require more vitamin D in our diet, as we are unable to get enough from the sun.

Also that depending on your age and vitamin D levels, and during pregnancy you actually require more Vitamin D.

It is recommended that if your vitamin D levels are low to consume 4000 IOU a day and most people should consume at least 1000 IOU a day.

If pregnant - please consult your health practitioner - as your daily requirement will depend on your vitamin D levels when measured with a blood test.



# ZINC

Zinc is a mineral that's commonly added to supplements and other healthcare products like lozenges that are meant to boost your immune system. This is because zinc is essential for immune system function.

Zinc is needed for immune cell development and communication and plays an important role in the inflammatory response. Zinc also specifically protects tissue barriers in the body and helps prevent foreign pathogens from entering.

A deficiency in this nutrient significantly affects your immune system's ability to function properly, resulting in an increased risk of infection and disease, including pneumonia.

According to research, 16% of all deep respiratory infections worldwide have been found to be due to zinc deficiency.

Reference: <https://www.healthline.com/nutrition/immune-boosting-supplements#2.-Zinc>



# ZINC

Zinc plays an essential role in numerous biochemical pathways: organ systems, including the integumentary, gastrointestinal, central nervous system, immune, skeletal, and reproductive systems... Zinc deficiency results in dysfunction of both humoral and cell-mediated immunity and increases the susceptibility to infection.

## Top 12 Zinc Benefits

1. Supports Immune Function and May Help Fight Infections/Colds
2. Acts as a Powerful Antioxidant
3. Can Help Balance Hormones
4. Helps Fight Diabetes
5. Helps Maintain Heart Health by Supporting Blood Vessels
6. Can Help Prevent Diarrhea
7. Supports Fertility
8. Aids in Nutrient Absorption and Digestion
9. Supports Liver Health
10. Helps with Muscle Growth and Repair
11. Supports Vision and Eye Health
12. Can Help Decrease Acne and Promote Wound Healing



# ZINC

Zinc is a component of various enzymes that help maintain structural integrity of proteins and regulate gene expression. Zinc metalloenzymes include ribonucleic acid polymerases, alcohol dehydrogenase, carbonic anhydrase and alkaline phosphatase. The biological function of zinc can be catalytic, structural or regulatory. More than 85% of total body zinc is found in skeletal muscle and bone (King & Keen 1999).

Recommendations by life stage and gender.

## Age Infants

0-6 months 4 mg/day

7-12 months 5 mg/day

## Children and adolescents

1-3 yr 7 mg/day

4-8 yr 12 mg/day

9-13 yr 25 mg/day

14-18 yr 35 mg/day

## Pregnancy

14-18 yr 35 mg/day

19-50 yr 40 mg/day

## Lactation

14-18 yr 35 mg/day

19-50 yr 40 mg/day

## Adults 19+ yr

Men 40 mg/day

Women 40 mg/day



# VITAMIN B

A new report suggests that B vitamins may improve COVID-19 symptoms and reduce the length of hospital stays for those with severe infections.

In an August report published in *Maturitas*, researchers from the United Arab Emirates University (UAEU) hypothesized that because B vitamins help build and maintain a healthy immune system, they could potentially prevent or reduce COVID-19 symptoms and/or treat an active infection.<sup>1</sup>

Patients with severe COVID-19 infections often experience a hyperactive immune response called cytokine storm. This exaggerated response releases signaling proteins called cytokines, which are an important part of your immune system. But if too many are released, it can cause severe acute inflammation that leads to tissue and organ damage.

Reference: <https://www.verywellhealth.com/vitamin-b-treatment-covid-19-5076559>



# VITAMIN B

## 13 Vitamin B Complex Benefits

1. Regulates Blood Sugar Levels
2. Helps Break Down Carbohydrates
3. Reduces Risk of Cardiovascular Disease
4. Lowers the Risk of Macular Degeneration
5. Improves Cognitive Function
6. Helps Get Rid of Free Radicals
7. Enhances Mood and Helps with Depression
8. Improves Production of Sex Hormones
9. Supports Fetal Development
10. Improves Sleep Quality
11. Promotes Gene Regulation
12. Decreases the Frequency and Severity of Migraines
13. Works as an Anti-Aging

Optimal dosing of vitamin B12 varies by age, lifestyle, and dietary needs. The general recommendation for adults is 2.4 mcg. Older adults, as well as pregnant and breastfeeding women, require higher doses.

Reference: <https://tailormadehealth.com/vitamin-b-complex-benefits/>,  
<https://www.healthline.com/nutrition/vitamin-b12-dosage#side-effects>

# FOODS HIGH IN ESSENTIAL NUTRIENTS

Rebalance



## ZINC

Oysters

Red meats

Liver - chicken/ veal/ lamb

Nuts: Brazils, almond,

Cashew, chestnuts,

Peanuts, pecan, pine,

Walnuts

Chicken

Duck

Turkey

Cheese - esp hard yellow types & blue vein

Yeast spread

Tomatoes - sundried

Eggs

## VITAMIN C

Blackcurrant juice

Guava

Banana Blackberry Red

Chilli peppers Red

peppers Parsley

Watercress Cabbage

Strawberries Papaya

Rockmelon

Citrus fruits Broccoli

Brussel sprouts Green

peppers Cauliflower

Kohlrabi Snowpeas



## VITAMIN D

Herring - pickled

Sardine - in tomato sauce

Calamari

Herring - pickled

Sardine - in tomato sauce

Calamari



# FOODS HIGH IN ESSENTIAL NUTRIENTS



## MAGNESIUM

Red meat  
Chicken liver  
Pork, chicken, turkey  
Chicken Turkey  
Nuts: Almond / Brazil/  
cashew  
Hazelnut/ Pecan, Peanuts/

Pine  
Pecan/ Pistachio/ Walnut  
Sesame seeds  
Tahini  
Sunflower seeds  
Yeast - bakers / dried /  
spread Licorice  
(confectionary) Chocolate  
(dark)

## VITAMIN B1

BI Yeast, brewers  
Yeast spreads  
Wheat germ (fresh)  
Sunflower seeds  
Sesame seeds - Tahini  
Soybeans  
Buckwheat

Wheat bran  
Oatmeal  
Pork  
Cashew Peanuts  
Mustard powder



## FOLATE

Yeast spread Liver -  
Chicken, lamb  
Vege juice - carrot, celery,  
silverbeet, parsley  
Orange juice Cocoa  
powder Flour - chickpea,  
soy Wheat germ Wheat  
bran

Limes Hazelnuts (raw)  
Peanuts (raw)  
Sesame seeds  
Spinach  
Cabbage  
Chives  
Watercress

