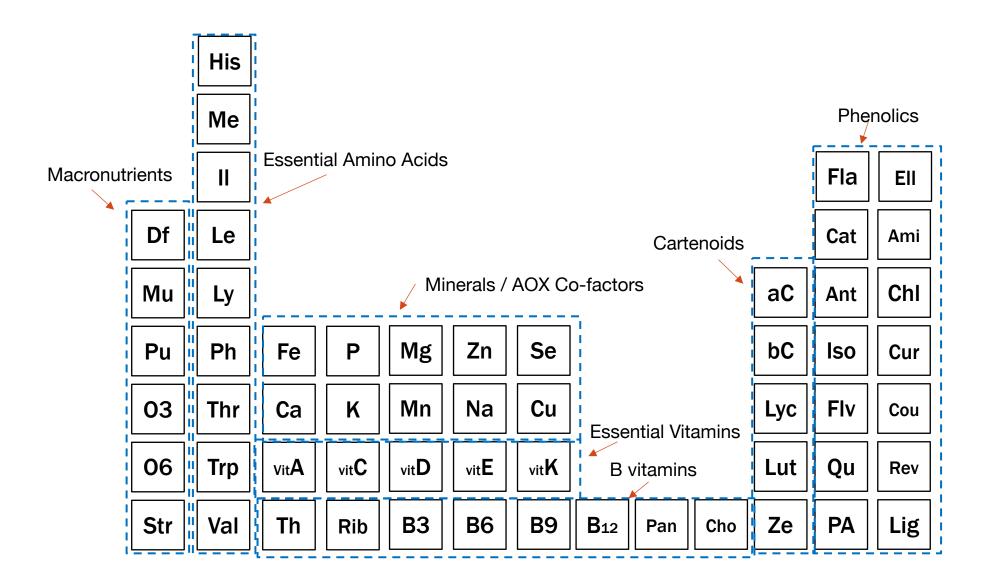
# PERIODIC TABLE OF SUPERFOOD NUTRITION

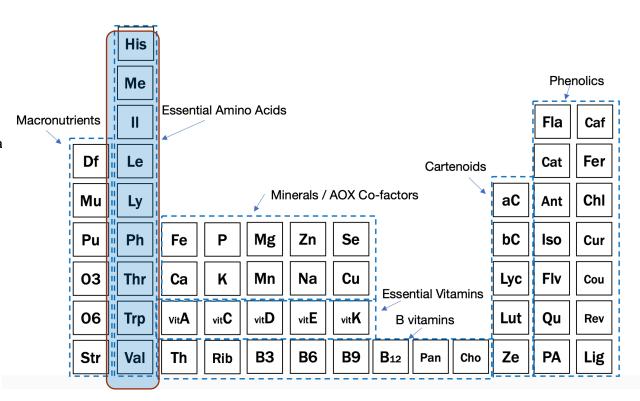
Disclosure: Based on our research findings. This is meant only for educational purposes and is not meant to treat or diagnose health conditions. Consult your medical practitioner before making any drastic changes to your diet.





### **Essential Amino Acids**

- Essential amino acids cannot be made by the body. As a result, they must come from food. Amino acids are often referred to as the building blocks of proteins. They're needed for vital processes like the synthesis of hormones and neurotransmitters for your brain.
- **Phenylalanine:** Phenylalanine is a precursor for the neurotransmitters tyrosine, dopamine, epinephrine and norepinephrine. It plays an integral role in the structure and function of proteins and enzymes and the production of other amino acids.
- Valine: Valine is one of three branched-chain amino acids, meaning it has a chain branching off to one side of its molecular structure. Valine helps stimulate muscle growth and regeneration and is involved in energy production.
- **Threonine:** Threonine is a principal part of structural proteins such as collagen and elastin, which are important components of the skin and connective tissue. It also plays a role in fat metabolism and immune function.
- **Tryptophan:** Though often associated with causing drowsiness, tryptophan has many other functions. It's needed to maintain proper nitrogen balance and is a precursor to serotonin, a neurotransmitter that regulates your appetite, sleep and mood.
- Methionine: Methionine plays an important role in metabolism and detoxification. It's
  also necessary for tissue growth and the absorption of zinc and selenium, minerals that
  are vital to your health.
- Leucine: Like valine, leucine is a branched-chain amino acid that is critical for protein synthesis and muscle repair. It also helps regulate blood sugar levels, stimulates wound healing and produces growth hormones.
- Isoleucine: The last of the three branched-chain amino acids, isoleucine is involved in muscle metabolism and is heavily concentrated in muscle tissue. It's also important for immune function, hemoglobin production and energy regulation.
- Lysine: Lysine plays major roles in protein synthesis, hormone and enzyme production and the absorption of calcium. It's also important for energy production, immune function and the production of collagen and elastin.
- **Histidine:** Histidine is used to produce histamine, a neurotransmitter that is vital to immune response, digestion, sexual function and sleep-wake cycles. It's critical for maintaining the myelin sheath, a protective barrier that surrounds your nerve cells.

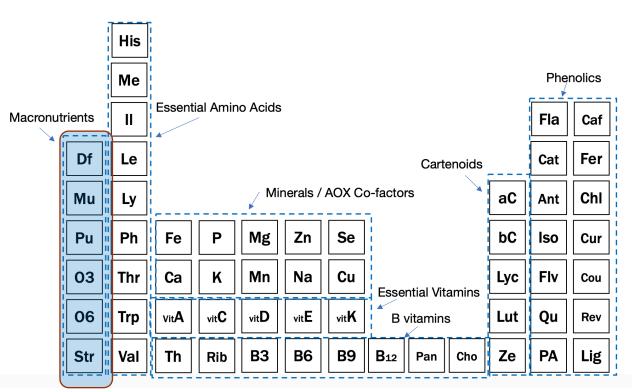






# **Macronutrients**

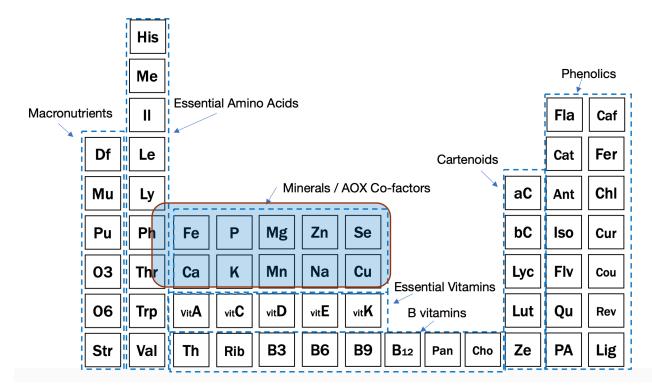
- Df: Dietary Fiber: feeds your gut for immunity, mood, cognition
- Mu: Monounsaturated Fats help reduce bad cholesterol to lower the risk of heart disease and stroke. Eat avocados, almonds, olive oil.
- Pu: Polyunsaturated Fat help reduce bad cholesterol. Your body needs essential fatty acids and can make all but two of them (O3 and O6)
- O3: Omega-3 Fatty Acid are a specific kind of Pu that has been widely studied in preventing heart disease, slow plaque in arteries, lower blood pressure. Eat salmon, flax. Seed, chia seed, hemp seed.
- O6: Omega-6 Fatty Acid are a specific kind of Pu that can be good for your heart. Eat walnuts, sunflower, seeds, pumpkin seeds.
- Str: Plant Sterols help block your body from absorbing cholesterol and lower LDL (bad) cholesterol.





# **Minerals and AOX Cofactors**

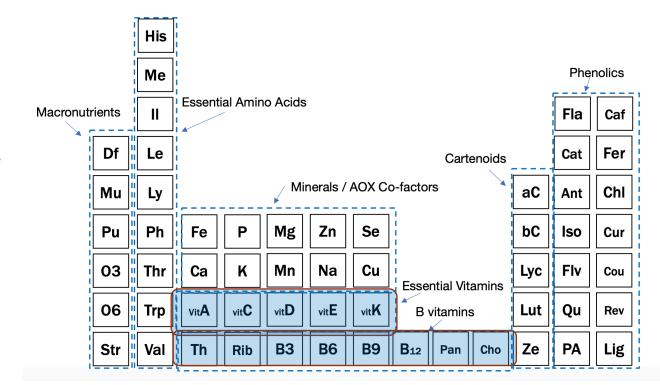
• There are several antioxidants produced by your body to neutralize free radicals and reactive oxygen species. These antioxidants also require co-factors such as selenium, iron, copper, zinc, magnesium and manganese to synthesize. It has been suggested that an inadequate dietary intake of these trace minerals may compromise the effectiveness of these antioxidant defense mechanisms.





### **Essential Vitamins**

The 13 essential vitamins your body needs are vitamins A, C, D, E, K and the B vitamins: thiamine (B1), riboflavin (B2), niacin (B3), pantothenic acid (B5), pyroxidine (B6), folate (B9) and cobalamin (B12). There are four fat-soluble vitamins—A, D, E, and K—that are stored in the body's fatty tissues. The other nine vitamins are water-soluble and therefore must be replenished regularly because they are removed from the body in your urine. Vitamin B12 is the only water-soluble vitamin that is stored in the liver. Also included is Choline which is essential for cognition.



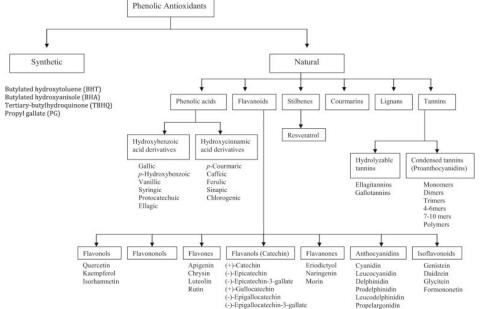


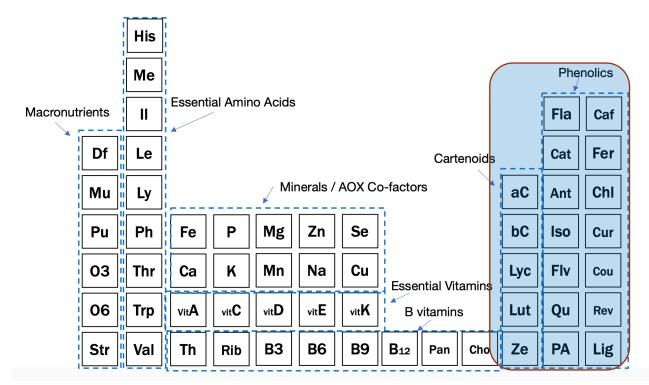
## **Cartenoids and Phenolics**

Carotenoids are plant pigments responsible for bright red, yellow and orange hues in many fruits and vegetables. There are more than 600 types of carotenoids. The most common ones in the Western diet. Carotenoids need to be consumed with a fat in order for the body to absorb them. Carotenoids act as antioxidants in the human body. They have strong cancer-fighting properties, and also have anti-inflammatory and immune system benefits. Major types: Alpha carotene, beta-carotene, lycopene, lutein and zeaxanthin

 Phenolics are a wide class of about 4000 plant-based substances that have powerful antioxidants effects. They can be found in a vast number of fruits, vegetables, seeds, nuts, teas, cocoa, spices and

legumes.







Source: Phenolics and polyphenolics in foods, beverages and spices: Antioxidant activity and health effects – A review; Journal of Functional Foods; 2018 <a href="https://doi.org/10.1016/j.jff.2015.06.018">https://doi.org/10.1016/j.jff.2015.06.018</a>

