

Supplement Guide

Why Supplements Matter...

Many people don't want to take supplements and prefer to get all of their vitamins, minerals, phytochemicals, and other essential nutrients from the foods they eat.

Unfortunately, most people do not eat nutrient-dense, life-giving foods at every meal. Often times, people spend twenty, thirty, forty years or more eating unhealthy, nutrient-deficient foods before shifting towards a healthier diet and lifestyle.

A few years of wholesome nourishment can't make up for the thousands of inadequate meals they've already eaten. Even as newborns, many people don't receive optimal nutrition.

Even if someone receives the most nutrient-rich breast milk as a baby and eats an ideal diet throughout their entire life, obstacles ranging from toxic chemical exposure and pollution to poor water quality, stress, and inherited radiation or mercury from past generations create the need for supplementation.



Supplement Recommendations

- Iron for red blood cell production and thyroid stimulating hormone.
- Magnesium for digestive balance and co-factor enzyme processes.
- Digestive Enzymes for digestive balance and absorption of key nutrients and minerals from food.
- Proteolytic Enzymes to help keep inflammation in check inside of the body.
- Probiotics (with Prebiotic) help to keep the gut healthy and functioning properly.
- Omegas (with DHA) are great for heart, brain and joint support but also work as cell protectors.
- B-Complex (B6, B12, selenium, folate) are required for hormonal balance.
- Liver & Kidney Cleanse (twice a year) are required to allow the liver to produce enzymes required by the body.
- Adrenal Balance is necessary for stress regulation and proper hormone production.



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Shopping Tips

- Research ingredients that are banned in Europe, since they have stricter food regulation laws there.
- Buy non-GMO, organic and vegan where possible or necessary.
- Anything in a propyl or ethyl group is likely highly synthesized and should be avoided.
- As a general rule of thumb, the less ingredients there are, the better it probably is.
- Buy pure whenever possible – bulk powders, pure liquids and capsules (rather than tablets) are less likely to contain harmful ingredients.
- Look for words that you recognize on the labels. Often times, for instance, rice flour or rice concentrate can be used instead of synthetic anti-caking agents or fillers.
- Have a conversation! Any solid business – whether it's the supplier or the actual manufacturer – should be happy to answer your questions.
- Be extra careful when buying “cheap” products online – if something is unusually inexpensive, it probably means it just has less of the actual substance in the package to begin with.

The Importance of Plant-Based Supplements

- Choose plant-based supplements that are whole food, cold-pressed and organic. The human body recognizes them quickly and knows what to do with them. This means faster absorption.
- Human blood has a similar molecular structure to that of plant blood, or chlorophyll. Hemoglobin is composed of four elements- carbon, hydrogen, oxygen and nitrogen. All four are organized around iron. Chlorophyll is composed of the same elements, which are organized around magnesium.
- Four important enzymes often found in plants are protease, amylase, lipase and cellulose. Protease breaks down protein that can be present in meat, fish, poultry, eggs, cheese and nuts. Amylase assists your body with the breakdown and subsequent absorption of carbohydrates and starches.

Animal Byproduct

It's hard to find a supplement that doesn't contain at least one animal byproduct. When you can go with the ones that have zero animal byproducts do it, but absolutely avoid the supplements with several animal byproducts.

Common animal byproducts are gelatin, which is derived from boiling the hooves, stomach and other tissue-linings of either pork or beef; lanolin comes from sheep and is often used in Vitamin D supplements; caprylic acid comes from goat, sheep or cow's milk (vegan sources include coconut or palm oils); lipase can come from plants but mostly comes from calves or lambs; and pepsin, which is comes from the stomach lining of pigs.



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Supplement Storage & Shelf-life

Contrary to popular opinion, most vitamins and supplements do not require refrigeration. While the refrigerator temperature (35° F /1.6° C) isn't a big concern, humidity can be a problem. If you prefer to refrigerate your supplements, be sure to fully close the lids. Ideally, supplements will live on the kitchen table.

Generally, liquid supplements tend to be more fragile than pills and can lose their potency faster. If stored properly, vitamins can last four or five years, although the conservative recommendation is that they can easily last two years. Taking vitamins beyond their expiration date is generally safe.

Expired vitamins do not go bad like food does and they do not turn into poison or toxins. Many expiration dates are set very conservatively because it benefits the supplement company. It is not dangerous to take expired vitamins, but the vitamins will lose their potency.

Synthetic-Level Fill

Top Tip: The "hl" form of any vitamin is synthetic. If you see chloride, hydrochloride, acetate or nitrate on the list of ingredients, the manufacturer used synthetics for the product.

A vast majority of vitamins, even ones labeled 'natural' or 'food-based', you see in commercials (Centrum), at drug store chains, grocery chains, membership club stores (Kirkland brand), vitamin stores, and even Whole Foods are synthetic. Almost all vitamin brands are made by a handful of the largest pharmaceutical companies. They are just in different packaging for marketing purposes.

Synthetic minerals are derived from rocks such as limestone, coral, oyster shell, sand, and chalk. Yum. Although these materials have mineral profiles, our bodies do not absorb them properly. Humans are not designed to digest rocks and oyster shells. Ideally, we should get all our minerals from plants. Plants absorb these minerals from soil and convert them to a form that is bioavailable to your body. However, because the soils are so deficient in minerals, even on organic farms, we need to take mineral supplements. It is best to take chelated minerals, which are minerals bound to amino acids, for maximum absorption.

Cold-pressed vs. Heat-pressed

It's key to know whether the supplements you are taking are heat or cold-pressed. It's the difference between ineffective and effective. Heat-pressed supplements have lost all of their nutritional value, while cold-pressed retain nutritional value.

Exposure to heat, light, and air can cause vitamins to degrade faster. Most vitamins are sensitive to heat and water. Vitamins C, thiamin (B1), pantothenic acid (B5), pyridoxine (B6), and folate (B9) tend to be the most vulnerable nutrients when subjected to heat and oxygen. Some vitamins are easily destroyed by oxygen, so cut vegetables or juiced vegetables should be stored in airtight containers in the refrigerator.



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Cold-pressed supplements are made with a hydraulic press that uses thousands of pounds of pressure to extract the maximum amount of liquid from fresh fruits and vegetables. No additional heat or oxygen is used in the process, meaning that no nutrients are lost in the heat of traditional pasteurization.

Enzymes

Enzymes help us to digest proteins, fats, sugars, etc. There are approximately 400 enzyme processes that occur within the body each day. A main function of enzymes is to help us to absorb key nutrients and minerals the human body needs to function properly. Enzymes are macromolecular biological catalysts that accelerate chemical reactions.

When choosing supplements, you want to ensure that you have digestive enzymes, proteolytic enzymes (anti-inflammatory) and magnesium. Magnesium is the co-factor in all enzyme processes.

Also, when choosing other supplements, you want to look to see if they contain an "enzyme blend" or "enzyme delivery system" for maximum absorption.

What do enzymes do?

- The digestive system - enzymes help the body break down larger complex molecules into smaller molecules, such as glucose, so that the body can use them as fuel.
- DNA replication - each cell in your body contains DNA. Each time a cell divides, that DNA needs to be copied. Enzymes help in this process by unwinding the DNA coils and copying the information.
- Liver enzymes - the liver breaks down toxins in the body. To do this, it uses a range of enzymes.

EXAMPLES OF SPECIFIC ENZYMES:

- Lipases - a group of enzymes that help digest fats in the gut.
- Amylase - helps change starches into sugars. Amylase is found in saliva.
- Maltase - also found in saliva; breaks the sugar maltose into glucose. Maltose is found in foods such as potatoes, pasta, and beer.
- Trypsin - found in the small intestine, breaks proteins down into amino acids.
- Lactase - also found in the small intestine, breaks lactose, the sugar in milk, into glucose and galactose.
- Acetylcholinesterase - breaks down the neurotransmitter acetylcholine in nerves and muscles.
- Helicase - unravels DNA.
- DNA polymerase - synthesizes DNA from deoxyribonucleotides.



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Avoid Supplements with Sugar

- Gummy Supplements - The traditional gummy bear is made from a mixture of sugar, glucose syrup, starch, flavoring, food coloring, citric acid, and gelatin. The original design for each type of candy is carved into plaster by an artist, then duplicated by a machine and used to create the starch molds for the production line.
- Supplements with Sugar - Common processed sugar additives, such as maltodextrin, dextrin, etc. are NOT good. If any supplement label lists this ingredients then avoid it.
- An excess of sweetened foods and beverages can lead to weight gain, blood sugar problems and an increased risk of heart disease, among other dangerous conditions. For these reasons, added sugar should be kept to a minimum whenever possible, which is easy when you follow a healthy diet based on whole foods.

Other Ingredients To Avoid

Citric Acid: This can wreak havoc on the immune system, intestinal tract, and stomach lining, and negates any benefits the supplement has to offer. Citric acid is a toxic chemical derived from corn and manipulated into a preservative.

Natural Flavors: Contains MSG and acts as an antagonist to the body. Numerous B-12 sprays, sublingual formulas, and lozenges include natural flavors. Even protein powders from reputable companies include MSG in the form of "vanilla flavoring" or a similar descriptor. Pure vanilla extract is fine.

Alcohol: Alcohol in herbal tinctures nullifies the supplement's beneficial elements. In addition, the typical alcohol used in tinctures is GMO corn-grade alcohol.

Bovine Derivatives: Animal derivatives in supplements come from extremely low-quality sources that are saturated with heavy metals, hormones, and other undesirable elements.

Whey Protein: Few people are aware of the fact that whey protein contains glutamic acid which is a form of MSG.

Carnitine: It's best for anyone struggling with chronic health issues or a mystery illness, whether it be fibromyalgia, rheumatoid arthritis, multiple sclerosis, lupus, or mystery aches and pains, to avoid carnitine.

Preservatives: When shopping for supplements, always check out the "other ingredients" list and avoid products with lengthy lists of potentially harmful additions.

