From A to Zinc

Your guide to the top nutrients, vitamins and supplements for better health.
This guide was designed to help educate and empower people to understand the essential nutrients our bodies need to operate at their optimum capacity. It lists what the nutrients are used for, what happens when the body is deficient, and food sources or supplements to take to replenish the body of these critical elements.

It is written by Kristina Carman, a registered nutritional therapist, naturopathic doctor, functional medicine practitioner, and health coach. Kristina aims for her practice to be a wellness destination offering approachable, sustainable, accessible advice and support when it comes to a patient's natural health and movement. She is passionate about food, nutrition, and lifestyle as medicine, and has a real “leave no stone unturned” approach with her patients.

Other recommendations in this guide were collected from a range of trusted healthcare professionals, including members of the FLCCC Nurses group. We thank everyone for their input in making this guide possible.

For more information visit www.flccc.net.
This guide aims to provide general information about vitamins, minerals, and relevant supplements. The information provided is for educational purposes only and should not be considered a substitute for professional medical advice, diagnosis, or treatment. It is not intended to provide specific recommendations or instructions for individual health concerns.

It is important to note that every individual’s health needs and requirements may vary, and what works for one person may not be suitable for another.

You are strongly recommended to consult with a qualified healthcare provider before making any decisions or taking any actions based on the information provided in this guide.

The brands in this guide are just suggestions, and each suggestion is an individual option. Not all the options should be taken together.

For more information, or to find a provider, visit www.flccc.net.
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Vitamin A is actually a group of fat-soluble compounds (e.g., retinol, retinal, and retinyl esters) made from the antioxidant beta carotene. It is found in many yellow and orange fruits and vegetables, and in some meats and fish.

**How it helps:**
- Supports eye health
- Improves healthy skin
- Boosts immune system
- Strengthens bones
- Promotes healthy reproductive system

**Signs of deficiency:**
- Weakened immunity
- Hair loss
- Acne
- Dry skin
- Night blindness
- Dry eyes
- Infertility

**Vitamin A-rich foods:**
- Beef liver
- Cod liver oil
- Salmon
- Eggs
- Sweet potato
- Carrots
- Mango
- Canteloupe
- Pumpkin
- Leafy greens
- Red bell pepper
- Dairy products

**BRANDS I LIKE**
- PURE ENCAPSULATIONS VITAMIN A (FROM COD LIVER OIL)
- NORDIC NATURAL VITAMIN A + CAROTENOIDS
- DESIGNS FOR HEALTH VITAMIN A DROPS
ASHWAGANDHA

Ashwagandha (Withania somnifera) is an adaptogenic herb that has been used in Ayurvedic medicine for centuries. An evergreen shrub found in Asia and Africa, it is also commonly known as "Indian Winter cherry" or "Indian Ginseng".

How it helps:
- It is an adaptogen that helps the body cope with stress and promotes relaxation
- Supports cognitive function and boosts energy
- Antioxidant properties
- Hormonal balancing
- Adrenal support
- Dosage:
  - Capsules: 300 to 600 milligrams (mg) per day, divided into two or three doses.
  - Powder: 1 to 6 grams per day, divided into multiple doses. The powder can be mixed with water, milk, or added to food.

How it is used for treatment:
- May be beneficial for individuals experiencing adrenal fatigue or imbalances in stress hormone levels.
- May support memory, focus, and overall cognitive function.
- Helps boost energy levels and combats fatigue.
- Traditionally used to support hormonal balance in both men and women.
- May be beneficial for individuals experiencing hormonal imbalances or looking to support reproductive health.
- Reduces stress.

Contraindications
- Those taking immunosuppressive drugs such as tacrolimus and cyclosporine.
- High doses may cause digestive upset in some individuals.
- Those with autoimmune disorders, thyroid disorders, or hormone-sensitive conditions, should consult with a healthcare professional before taking Ashwagandha.
- Not recommended for pregnant or breastfeeding women.

Note: In Ayurveda, ashwagandha is an herb that is considered "hot" and "dry", which means that though it has many benefits it may not suit everyone's constitution.

BRANDS I LIKE
- LIFE EXTENSIONS
- APOTHECKARY
- BANYAN
B vitamin complex refers to a group of essential water-soluble vitamins that play important roles in various bodily functions and include thiamine (B1), riboflavin (B2), niacin (B3), pantothenic acid (B5), pyridoxine (B6), biotin (B7), folate (B9), and cobalamin (B12). These vitamins are often found together in food sources and dietary supplements because they work synergistically to support overall health.

**How it helps:**
- Energy production
- Brain and nervous system function
- Red blood cell formation
- DNA synthesis and repair
- Hormone production

**Signs of deficiency:**
- Thiamine (B1) deficiency: beriberi, weakness, fatigue, and mental confusion
- Riboflavin (B2) deficiency: cracked lips, sore throat, and anemia
- Niacin (B3) deficiency: pellagra, which can cause skin rash, diarrhea, and mental confusion
- Pantothenic acid (B5) deficiency: fatigue, insomnia, and depression
- Pyridoxine (B6) deficiency: anemia, depression, and nerve damage
- Biotin (B7) deficiency: hair loss, skin rash, and brittle nails
- Folate (B9) deficiency: anemia, birth defects, and increased risk of certain cancers
- Cobalamin (B12) deficiency: anemia, nerve damage, and cognitive decline

**Optimal Dosages:**
- Thiamine (B1): 1.2 mg for adult males and 1.1 mg for adult females
- Riboflavin (B2): 1.3 mg for adult males and 1.1 mg for adult females
- Niacin (B3): 16 mg for adult males and 14 mg for adult females
- Pantothenic acid (B5): 5 mg for adults of both genders
- Pyridoxine (B6): 1.3 mg for adults of both genders
- Biotin (B7): 30 mcg for adults of both genders
- Folate (B9): 400 mcg for adults of both genders
- Cobalamin (B12): 2.4 mcg for adults of both genders

**BRANDS I LIKE**
- ACEVA
- THORNE
VITAMIN B7 (BIOTIN)

Vitamin B7, like all B vitamins, is water-soluble. This means your body can't store it up, so it needs to be replenished daily either through food or supplementation.

How it helps:
- Promotes healthy skin, hair, and nails
- Supports a healthy nervous system
- Helps your body turn protein, carbohydrates, and fats into energy

Signs of deficiency:
- Brittle nails
- Hair loss
- Skin rashes (especially on the face)
- Cracks in the corners of the mouth
- Depression
- Fatigue
- Numbness or tingling

Vitamin B7-rich foods:
- Egg yolk
- Liver
- Legumes
- Nuts and seeds
- Banana
- Sweet potato
- Mushrooms
- Avocado
- Broccoli

BRANDS I LIKE
- PURE ENCAPSULATIONS BIOTIN
- THORNE BIOTIN-8
- GARDEN OF LIFE RAW B-COMPLEX (VEGAN)
Vitamin B12, also known as cobalamin, is mostly found in animal sources of food. So, for vegans or those who eat a plant-based diet, a B12 supplement is a wise move. The MTHFR gene can also lead to low B12.

**How it helps:**
- Helps form red blood cells to prevent anemia
- Supports healthy bones
- Promotes a healthy nervous system
- Helps your body produce energy
- Plays a role in DNA formation

**Signs of deficiency:**
- Fatigue
- Weakness
- Tingling in fingers & toes
- Anemia
- Poor memory
- Depression
- Shortness of breath
- Pale skin

**Vitamin B12-rich foods:**
- Beef
- Chicken
- Salmon
- Sardines
- Tuna
- Clams
- Eggs
- Milk
- Nutritional Yeast

**BRANDS I LIKE**
- JARROW FORMULAS METHYL B-12
- THORNE VITAMIN B-12 METHYLCOBALAMIN
- JARROW FORMULAS EXTRA STRENGTH METHYL B-12 & METHYLFOLATE (GOOD FOR THOSE W/MTHFR)
Berberine may lower blood sugar levels and can interact with medications used to treat diabetes, so it’s important to monitor blood sugar levels closely. Berberine may interfere with the metabolism and effectiveness of some medications, such as statins, antibiotics, and blood pressure drugs. Berberine may interact with liver enzymes and may be contraindicated in people with liver disease or dysfunction.

**How it helps:**
- Helps regulate blood sugar
- Lower cholesterol levels
- Supports health immune system
- Used in diarrhea, infections, and other digestive issues as it can act as a "natural" antibiotic

**Contraindications:**
- Berberine may lower blood sugar levels and can interact with medications used to treat diabetes, so it's important to monitor blood sugar levels closely.
- Berberine may interfere with the metabolism and effectiveness of some medications, such as statins, antibiotics, and blood pressure drugs.
- Berberine may interact with liver enzymes and may be contraindicated in people with liver disease or dysfunction.

**Tea Recipe:**
To make a berberine tea, use a berberine-containing herb like goldenseal or Oregon grape root and add 1-2 teaspoons to a cup of hot water. Let it steep for 10-15 minutes, strain, and enjoy. Berberine is also available in supplement form.

**BRANDS I LIKE**
- METAGENICS BERBERINE
- INTEGRATIVE THERAPEUTICS BERBERINE
In addition to its anti-inflammatory and digestive properties, bromelain has been investigated for its potential in wound healing, reducing postoperative swelling, and promoting the absorption of certain drugs. Bromelain can be obtained through dietary sources like fresh pineapple or pineapple juice. However, for therapeutic purposes, it is often taken in supplement form. Bromelain supplements typically contain a concentrated form of the enzyme mixture and are available in various strengths and formulations.

**How it helps:**
- Digestive support
- Anti-inflammatory effects: particularly in joint-related conditions or sports injuries
- Sinus and respiratory support: alleviates nasal inflammation, congestion, and respiratory symptoms

**Contraindications:**
- Avoid if you have allergies to pineapple.
- Individuals with bleeding disorders or those taking anticoagulant medications should consult with a healthcare professional before using bromelain.
- Due to its potential blood-thinning effects, it is advisable to discontinue bromelain use at least two weeks before scheduled surgery to reduce the risk of excessive bleeding.
- The safety of bromelain during pregnancy and breastfeeding is not well established. It is recommended to consult with a healthcare professional before using bromelain in these situations.

**Other Uses:**
- In addition to its anti-inflammatory and digestive properties, bromelain has been investigated for its potential in wound healing, reducing postoperative swelling, and promoting the absorption of certain drugs.

**Availability:**
- Bromelain can be obtained through dietary sources like fresh pineapple or pineapple juice. However, for therapeutic purposes, it is often taken in supplement form. Bromelain supplements typically contain a concentrated form of the enzyme mixture and are available in various strengths and formulations.

**Dosage:**
- 80 to 500 mg 1-3x per day

**BRANDS I LIKE**
- **VITAL NUTRIENTS**
Vitamin C, also known as ascorbic acid, is a water-soluble vitamin essential for human health. It plays a crucial role in various bodily functions, including immune system support, collagen synthesis, antioxidant protection, and iron absorption. It is found in a wide range of fruits and vegetables and is known for its role in promoting overall well-being and optimal health.

**How it helps:**
- Supports skin health
- Improves collagen production
- Boosts immune system and helps fight infections
- Aids in the absorption of iron

**Signs of deficiency:**
- Fatigue and weakness
- Joint and muscle aches: Vitamin C is involved in collagen synthesis, which helps maintain the health of joints and muscles
- Easy bruising and slow wound healing: Vitamin C is necessary for proper wound healing and maintaining healthy blood vessels
- Dry and splitting hair: and dry, rough skin
- Vitamin C is involved in the production of collagen
- Weak immune system
- Gum inflammation

**Vitamin C-rich foods:**
- Mango
- Citrus fruits
- Leafy greens
- Red bell pepper
- Broccoli
- Brussel Sprouts

**BRANDS I LIKE**
- THORNE
- PURE ENCAPSULATIONS
- VITAL NUTRIENTS ALLER C
Coenzyme Q10, commonly referred to as CoQ10, is a naturally occurring compound found in the body. It plays a crucial role in the production of energy within cells and also acts as an antioxidant.

How it helps:
- Aids in production of ATP, providing natural energy boost and supporting overall vitality
- Can help maintain healthy cardiovascular system by supporting heart muscle function and promoting healthy blood pressure levels
- Helps protect cells from oxidative stress, which is linked to various chronic diseases and the aging process
- May improve exercise performance and reduce fatigue

Signs of deficiency:
- Fatigue and weakness
- Muscle pain and weakness
- Increased risk of cardiac conditions: arrhythmias, impaired heart function, cardiomyopathy, myocardial infarction, congestive heart failure
- Hypertension
- Cognitive impairment
- Weakened immune function

Contraindications:
- Some individuals may experience allergic reactions or sensitivities to CoQ10 supplements.
- CoQ10 may interact with certain medications, such as blood-thinning drugs (e.g., warfarin), blood pressure medications, and chemotherapy drugs. A healthcare professional can provide guidance on potential interactions.
- While CoQ10 is not known to be harmful during pregnancy or breastfeeding, it is recommended to consult a healthcare professional before using any supplements during these periods

BRANDS I LIKE
- THORNE
- ACEVA
**Curcumin**

Curcumin is a bioactive compound found in the spice turmeric. It is responsible for turmeric's vibrant yellow color. Curcumin is known for its potent anti-inflammatory and antioxidant properties.

**How it helps:**
- Powerful antioxidant
- Anti-inflammatory
- Antimicrobial
- Anti-cancer properties
- Positive impact on conditions like arthritis and cardiovascular disease
- Diabetes prevention
- Reduces cognitive decline
- Useful in treatment of certain types of cancer

**Dosages**
- Standard curcumin extract: 500-, 1000 mg per day in divided doses.
- Lower doses with enhanced bioavailability formulations such as curcumin with piperine or liposomal curcumin.
- Typically, around 500 mg per day, may be effective due to improved absorption.
- Use Curcumin, turmeric should be avoided as it is not bioavailable enough.

**Contraindications:**
- Curcumin is generally considered safe for most people when taken within recommended doses.
- High doses or prolonged use may cause gastrointestinal disturbances such as diarrhea or nausea in some individuals.
- It may also interact with certain medications, including blood thinners, nonsteroidal anti-inflammatory drugs (NSAIDs), and some chemotherapy drugs.
- If you have any underlying health conditions or are taking medications, it is advisable to consult with a healthcare professional before starting curcumin supplementation.
- It is advised to stop curcumin supplementation two weeks before any surgery.

**BRANDS I LIKE**
- Life Extensions Curcumin Elite
- Euromedica Curapro
- Aceva Mobility
An in-vitro study demonstrated that a dandelion leaf extract altered the binding of SARS-CoV-2 spike protein to the ACE-2 receptor. Dandelion extract would therefore appear to be of theoretical benefit for the prevention and early treatment of COVID-19.

**How they help:**
- Anti-inflammatory
- Antioxidant
- Lowers concentrations of lipoproteins
- Antimicrobial
- Anticoagulant
- Supports natural liver detoxification

**Contraindications:**
- Note that dandelion extract is considered contraindicated in those with liver and biliary disease, bile duct obstruction, gallstones, cholangitis, and active peptic ulcers.
- Furthermore, dandelion is rich in potassium and should be used cautiously in patients with kidney failure.

**For acute COVID-19 treatment:**
- An in-vitro study demonstrated that a dandelion leaf extract altered the binding of SARS-CoV-2 spike protein to the ACE-2 receptor.
- Dandelion extract would therefore appear to be of theoretical benefit for the prevention and early treatment of COVID-19.

**BRANDS I LIKE:**
- **NATURES WAY DANDELION ROOT TEA**
- **FULL LEAF CO. DANDELION LOOSE LEAF TEA**
- **DANDELION ROOT**
- **COMPLETE NATURALS ORGANIC DANDELION CAPSULES**
Known as "the sunshine vitamin," your body makes vitamin D from sun exposure. Since we are spending more time indoors than ever before, the vast majority of the population is low on vitamin D.

**How it helps:**
- Helps your body absorb calcium to support healthy bones
- Promotes a healthy immune system
- Reduces cancer risk
- Lowers inflammation

**Signs of deficiency:**
- Weak bones
- Fatigue
- Muscle weakness
- Osteoporosis
- Depression

**Vitamin D-rich foods:**
- Salmon
- Sardines
- Tuna
- Cod liver oil
- Beef liver
- Egg yolks
- Shrimp
- Mushrooms
- Fortified milk and yogurt

**BRANDS I LIKE**
- NEW CHAPTER FERMENTED VITAMIN D3
- METAGENICS VITAMIN D3
- THORNE VITAMIN D3
- CYMBIOTIKA VITAMIN D + K2
- ACEVA ACTIVE D +K2
Elderberry is a type of dark purple berry that grows on the elder tree, scientifically known as *Sambucus nigra*. Elderberries have been used for centuries in traditional medicine to help treat various illnesses and promote overall health.

**How it helps:**
- Help boost the immune system
- Fights respiratory infections
- Reduce inflammation
- Rich in antioxidants
- Antiviral and antibacterial properties
- Aids in blood sugar balance
- Good for digestive health

**Method to make tincture:**
- Combine 1 cup dried elderberries and 4 cups of water in a large pot and bring to a boil.
- Reduce heat and simmer for 30 minutes.
- Strain the mixture through a fine mesh strainer or cheesecloth into a glass jar.
- Add 1 cup of honey and 1 cup of vodka to the jar and stir well.
- Allow the mixture to cool to room temperature, then cover with a tight-fitting lid and store in a cool, dark place for 4-6 weeks, shaking daily.
- Transfer the liquid to a dropper bottle and store in a cool, dark place.
- To use, add a few drops of the elderberry tincture to a cup of hot water and enjoy as a tea or add to smoothies, juices, or other beverages for added health benefits.

**Contraindications:**
- While elderberry is generally considered safe for most people, there are some potential side effects and interactions to be aware of.
- Raw or unripe elderberries contain a toxic compound called cyanogenic glycoside, which can cause nausea, vomiting, and diarrhea.
- It is important to cook or otherwise properly prepare elderberries before consuming them.

**BRANDS I LIKE**
- NORTHERN ELDERBERRY
- THE POWER OF ELDERBERRIES
- PURITAN
- SAMBUCOL
- GOBBLE MOUNTAIN
Folate (aka vitamin B9) occurs naturally in many foods. Folic acid is the synthetic form of folate that some food manufacturers add to fortify foods. People with the MTHFR gene have trouble converting folic acid into folate and should avoid it.

**How it helps:**
- Helps your body produce red blood cells
- Needed to make and repair DNA
- Supports healthy growth and development during pregnancy
- Improves cognition

**Signs of deficiency:**
- Anemia
- Fatigue
- Trouble concentrating
- Depression
- Mouth ulcers
- Sore and red tongue
- Birth defects
- Fertility issues

**Vitamin B9-rich foods:**
- Leafy greens
- Asparagus
- Brussel sprouts
- Beans
- Broccoli
- Avocado
- Orange
- Mango
- Eggs

**BRANDS I LIKE**
- THORNE 5-MTHF METHYLFOLATE
- PURE ENCAPSULATIONS FOLATE
- JARROW FORMULAS EXTRA STRENGTH METHYL B12 & METHYLFOLATE
Ginger (Zingiber officinale) is a spice that is widely used in cooking and traditional medicine. It contains bioactive compounds with anti-inflammatory, antioxidant, and digestive properties.

**How it helps:**
- Antiemetic (Anti-Nausea)
- Helps with motion sickness
- Anti-Inflammatory properties
- Reduces morning sickness in pregnancy
- Alleviates digestive discomfort
- Relieves chemotherapy-induced nausea
- Reduce muscle pain and soreness
- Supports overall immune health
- Anti-cancer properties

**Contraindications:**
- Generally considered safe for most people when consumed in appropriate amounts.
- Some individuals may experience mild side effects, including heartburn, stomach upset, or diarrhea.
- Higher doses or prolonged use of ginger supplements may increase the risk of side effects.
- If you have gallbladder problems, diabetes, or are taking blood-thinning medications, it is advisable to consult with a healthcare professional before starting ginger supplementation.

**Dosages:**
- Fresh ginger: 1–2 grams (about ½ to 1 inch of fresh ginger root) per day, divided into multiple doses.
- Ginger powder: 1–4 grams per day, divided into multiple doses.
- For extract or supplements, follow the recommended dosage instructions provided by the manufacturer.
- Typical doses range from 100 to 2,000 mg per day, depending on the concentration of active compounds.

**BRANDS I LIKE**
- SUPERPURE GINGER
- GAIA HERBS GINGER
- GINGER ROOT
- GINGER TINCTURE
Honeysuckle is a flowering plant that has been used in traditional medicine for its various health benefits.

**How it helps:**
- Anti-inflammatory
- Antiviral
- Antibacterial
- Helps with colds, coughs, fever and respiratory infections

**Contraindications:**
These are limited, but those that are pregnant or breastfeeding should consult their healthcare provider.

**Honeysuckle Tea:**
To make a honeysuckle tea, simply add 1-2 teaspoons of dried honeysuckle flowers to a cup of hot water and let it steep for 5-10 minutes. You can also add other herbs like peppermint or ginger for added flavor and benefits.

**Honeysuckle Tincture:**
- Fill a jar with fresh or dried honeysuckle flowers.
- Cover with high-proof alcohol like vodka.
- Let it sit for 4-6 weeks, shaking occasionally.
- Strain and store in a dropper bottle.
Iron is crucial for healthy blood. People who are low on iron can develop anemia, which can affect energy, memory, concentration, and immune function.

**How it helps:**
- Needed to make hemoglobin, which transports oxygen in your blood
- Needed to make myoglobin, which provides oxygen to your muscles

**Signs of deficiency:**
- Anemia
- Fatigue
- Trouble concentrating
- Poor memory
- Pale skin
- Weak and brittle nails
- Dizziness
- Shortness of breath

**Iron-rich foods:**
- Beef
- Oysters
- Dried apricots
- White beans
- Spinach
- Chocolate
- Quinoa
- White button mushrooms
- Pumpkin seeds

**BRANDS I LIKE**
- FLORODIX LIQUID IRON + HERBS
- THORNE IRON BISGLYCINATE
- PURE ENCAPSULATIONS IRON-C
Vitamin K comes in two forms: vitamin K1, which is found in plant foods like leafy greens, and vitamin K2, which is found in some animal foods and fermented foods. It works with vitamin D to help your body metabolize calcium.

**How it helps:**
- Supports blood clotting
- Promotes wound healing
- Strengthens bones
- Improves insulin sensitivity
- Has anti-cancer properties

**Signs of deficiency:**
- Osteoporosis
- Excessive bleeding
- Bruise easily
- Poor wound healing
- Heavy menstrual bleeding

**Vitamin K-rich foods:**
- Spinach
- Kale
- Broccoli
- Asparagus
- Collard greens
- Lettuce
- Cabbage
- Olive oil
- Sauerkraut

**BRANDS I LIKE**
- THORNE VITAMIN K (K1 & K2)
- GARDEN OF LIFE VITAMIN CODE RAW K COMPLEX
- THORNE LIQUID VITAMIN D3 & K2
Magnesium is an important mineral that plays a role in over 600 processes in your body. Unfortunately, around 50% of US adults are low on magnesium.

**How it helps:**
- Promotes healthy blood sugar levels
- Relaxes muscles
- Improves sleep quality
- Eases depression
- Support heart health
- Prevents migraines
- **Magnesium L-Threonate** crosses into the brain and improves sleep, relaxation, and memory

**Signs of deficiency:**
- Muscle spasms and cramps
- Muscle weakness
- Fatigue
- Loss of appetite
- Nausea
- High blood pressure
- Abnormal heart beat

There are many forms of magnesium, each with its benefits. Ask your health provider which is best for you.

**Magnesium-rich foods:**
- Spinach
- Pumpkin seeds
- Beans & legumes
- Tuna
- Brown rice
- Almonds
- Dark chocolate
- Avocado
- Banana

**BRANDS I LIKE**
- Designs for Health Magnesium Buffered Chelate
- Metagenics Mag Glycinate
- Natural Vitality Calm Magnesium Citrate
Melatonin is a hormone naturally produced by the pineal gland in the brain. It plays a crucial role in regulating the sleep-wake cycle and is commonly used as a supplement to promote sleep.

**How it helps:**
- Regulates the circadian rhythm which is the sleep-wake cycle
- Benefits Jet-Lag and Shift workers
- Insomnia and Sleep Disorders
- Hormonal Regulation
- Antioxidant
- Immune function
- Anti-Aging

**Contraindications:**
- Melatonin is generally considered safe when taken in appropriate doses.
- Side effects are rare but may include drowsiness, headache, dizziness, and changes in blood pressure.
- Slow release mimics the body's natural circadian rhythm.
- It is advisable to consult with a healthcare professional before starting melatonin supplementation, especially if you have any underlying health conditions or are taking medications.

**Dosage:**
- Melatonin is most effective when taken at the appropriate time. For sleep initiation, it is typically taken 30 minutes to an hour before bedtime.
- The duration of melatonin use varies depending on the reason for supplementation.
- See the FLCCC protocols for dosage information.

**BRANDS I LIKE**
- THORNE
- NEW CHAPTER MELATONIN AND GINGER PAIN RELIEF
- PURE ENCAPSULATIONS
The optimal dosage of NAC can vary depending on the specific condition being addressed. Dosages typically range from 600 to 1,800 mg per day, divided into multiple doses.

How it helps:
- Antioxidant Activity
- Respiratory Health
- Liver Support
- Mental Health and Brain Function
- Addiction and Substance Abuse

Contraindications
- NAC is generally considered safe for most people when taken in recommended doses.
- Some individuals may experience gastrointestinal side effects, such as nausea, vomiting, or diarrhea.
- NAC may interact with certain medications, including nitroglycerin, nitroprusside, and activated charcoal.

Dosage:
- The optimal dosage of NAC can vary depending on the specific condition being addressed.
- Dosages typically range from 600 to 1,800 mg per day, divided into multiple doses.

BRANDS I LIKE
- PURE ENCAPSULATIONS
- INTEGRATIVE THERAPEUTICS

N-Acetylcysteine (NAC) is a compound derived from the amino acid L-cysteine. It has been studied for its various potential health benefits.
Nigella sativa is a small shrub native to Southern Europe, North Africa, and Southeast Asia. It is a widely used medical plant in different cultures all over the world is also called: Black Cumin Seed, Black Seed, Kalonji, Roman Coriander, Black Caraway, and Fennel Flower.

**How it helps:**
- Diuretic
- Antihypertensive
- Antidiabetic
- Anticancer
- Immunomodulatory
- Analgesic
- Antimicrobial
- Anthelmintics
- Bronchodilator
- Gastroprotective
- Hepatoprotective
- Renal protective
- Antioxidant

**Active compound:**
Most of the therapeutic properties of this plant are due to the presence of thymoquinone (TQ) which is a major active chemical component of the essential oil.
- comes in seeds, oil, and supplements
- when buying oil, purchase 100% cold pressed oil

**Tips for using:**
- When using the oil, do not heat it up.
- Add cold to salads, smoothies, or take a spoonful pure.
- When using the seeds, crush them and add them to food.
- Do not crush the seeds and store them, use them freshly crushed.
- Heating seeds slightly removes pungent flavor.
- Supplements: Read the information on dosage on the bottle
- On a budget: Buy seeds or oil instead of supplements.

**NIGELLA SATIVA TIPS:**
- IN ASIAN STORES, MIDDLE EASTERN STORES, AND ONLINE.
- DOSAGE:
  - FOR ACUTE COVID-19 80 MG/KG DAILY WITH HONEY 1G/KG DAILY, OR 400 TO 500 MG OF ENCAPSULATED OIL TWICE A DAY
  - POST VACCINE- 200-500 MG ENCAPSULATED OIL TWICE DAILY
Omega 3s are a type of polyunsaturated fatty acid (PUFA) essential for many functions in the body.

**Description:**
- There are three main types of Omega-3s: EPA (eicosapentaenoic acid), DHA (docosahexaenoic acid), and ALA (alpha-linolenic acid).
- EPA and DHA are found primarily in fatty fish such as salmon, tuna, and sardines.
- ALA is found in plant-based sources such as flaxseeds, chia seeds, and walnuts.

**Benefits:**
- Important for brain function, heart health, and reducing inflammation in the body.
- Can help improve cognitive function, reduce the risk of heart disease and stroke, lower blood pressure, and reduce symptoms of inflammation in conditions such as arthritis.

**Signs of deficiency:**
- Dry skin
- Brittle hair and nails
- Fatigue
- Poor memory
- Neurological problems
- Increased risk of heart disease

Note that while Omega-3s are important for health, it’s also important to balance their intake with Omega-6 fatty acids. Omega-6s are also essential, but the modern Western diet tends to be too high in Omega-6s and low in Omega-3s. Experts generally recommend a ratio of 1:1 to 4:1 of Omega-6 to Omega-3 fatty acids for optimal health.
**PROBIOTICS**

Probiotics are live bacteria that are beneficial to the body, particularly the digestive system. They help to maintain a healthy balance of gut bacteria, improve digestion, boost the immune system, and reduce inflammation.

**How they help:**
- Helps keep the gut-lung axis in balance
- Helps with common digestive health complaint such as with diarrhea, constipation, IBS, IBD
- Help keep immune system in check
- Help maintain normal flora to keep digestive system healthy
- Improved nutrient absorption

**Dosage:**
- The optimal recommended dose of probiotics can vary depending on the specific strains and the individual’s needs.
- Generally, doses of 1-10 billion CFUs (colony-forming units) per day are recommended.
- Depending of the brand that may be one to two capsules per day.

**Contraindications:**
- Although it's often recommended to take probiotics during and after antibiotic treatment to restore gut flora, it's generally recommended to not take them at the exact same time of day. Some antibiotics can kill the probiotic bacteria, rendering them ineffective.
- Those with weakened immune systems, such as people with HIV/AIDS, those undergoing chemotherapy, or those who have recently had an organ or bone marrow transplant, should be cautious. In such individuals, there's a risk that the probiotics could lead to an infection.

**BRANDS I LIKE**
- **DAILY RESTORE**
- **MEGASPOREOBIOTIC**
- **TRUEBIFIDOPRO**
- **YOUR GUT PLUS**
Here are a few of the commonly used probiotic strains and why they are used. Apart from Saccharomyces Boulardii, these other strains generally be found in a broad spectrum probiotic.

- **Lactobacillus acidophilus**: One of the most widely recognized probiotic strains. It can help with lactose digestion, enhance nutrient absorption, support immune function, and may help treat or prevent vaginal infections.
- **Lactobacillus rhamnosus GG (LGG)**: One of the most thoroughly studied probiotic strains. It's beneficial for gastrointestinal health and immune support. It can also be effective for traveler’s diarrhea and diarrhea associated with antibiotic use.
- **Bifidobacterium bifidum**: Supports a healthy immune response and may be helpful in managing symptoms of IBS.
- **Bifidobacterium lactis (also known as B. animalis)**: May boost immunity, improve digestion, and enhance the absorption of certain nutrients.
- **Saccharomyces boulardii**: Yeast probiotic often used for treating or preventing diarrhea, including infectious types such as rotaviral diarrhea in children, diarrhea caused by gastrointestinal overgrowth, and travelers’ diarrhea.
- **Lactobacillus casei**: Can help with digestive issues and may support immune function. It may also be helpful for managing constipation.
- **Lactobacillus plantarum**: Linked to supporting a healthy gut lining, reducing inflammation, and providing relief from IBS symptoms.
- **Bifidobacterium longum**: Common in the gut microbiota of many mammals, including humans, and may help to break down carbohydrates, combat oxidative stress, and promote mental well-being.

**HOW THEY HELP AND DOSAGE:**
- Aid with lactose digestion.
- Enhance nutrient absorption.
- Support immune function.
- May help treat or prevent vaginal infections.
- Beneficial for gastrointestinal health and immune support.
- It can also be effective for travelers’ diarrhea and diarrhea associated with antibiotic use.

**DOSAGE**
- Generally anywhere from 1-2 capsules daily on an empty stomach.
Quercetin is a plant phytochemical (flavonoid) with broad-spectrum anti-inflammatory, antioxidant, antiviral, anticoagulant, and immune-modulatory properties. Citrus fruits, apples, berries, onions, parsley, sage, tea, and red wine are foods containing quercetin.

### How it helps:
- Inhibits SARS-COV-2 replication by several mechanisms.
- Heart Health
- Inhibits mast cells.
- Reduces neuroinflammation.
- Anti-Inflammatory Properties
- Allergies
- Exercise Performance and Recovery

### Contraindications:
- Due to the possible drug interaction between quercetin and ivermectin, these drugs should not be taken simultaneously.
- The use of quercetin has rarely been associated with hypothyroidism.
- The clinical impact of this association may be limited to those individuals with pre-existing thyroid disease or those with subclinical thyroidism.
- Quercetin should be used with caution in patients with hypothyroidism and TSH levels should be monitored.
- The safety of quercetin and flavonoids in pregnancy has not been established and they should probably be avoided.

### Dosage:
- **Exercise Performance and Recovery:** 500–1000 mg a day
- **Anti-inflammatory/ Antioxidant Support:** 500 to 1,000 mg per day
- **Prostate Health:** 500 to 1,000 mg
- **Allergy Relief and Respiratory Health:** 500 to 1,000 (mg) per day, divided into multiple doses.

### BRANDS I LIKE
A lecithin-based formulation (Quercetin Phytosome®, Life Extension Bio-Quercetin) and a nanoparticle formulation have shown markedly improved bioavailability.

### FLCCC ALLIANCE
Resveratrol is a natural compound found in various plants, including grapes, berries, and peanuts. It belongs to a class of compounds called polyphenols and has gained attention for its potential health benefits.

**How it helps:**
- Antioxidant Activity
- Cardiovascular Health
- Lowers blood Pressure
- Lowers LDL cholesterol
- Helps with Insulin resistance
- Anti-Aging Effects
- Neuroprotective Properties
- Cancer Prevention

**Contraindication:**
- Resveratrol is generally considered safe when consumed in moderate amounts through dietary sources.
- High-dose supplementation may cause gastrointestinal discomfort or interact with certain medications, including blood thinners and immunosuppressants.

**Dosage:**
- Can vary depending on the individual, the specific health condition, and the source of resveratrol.
- Dosages used in studies range from 150 mg to 2 grams per day. However, it's important to note that the bioavailability of resveratrol can be limited, and higher doses may not necessarily translate to greater benefits.
- Follow manufacturers' recommendations for dosage.

**BRANDS I LIKE**
- VITAL NUTRIENTS
- LUMA NUTRITION
- VERSO
Selenium is an essential mineral that is important for many functions in the body. It is found in the soil, and appears in water and some foods. It is a key player in your body's metabolism process.

**How it helps:**
- Needed for the production and conversion of thyroid hormones.
- Helps to protect against oxidative stress and inflammation.
- Acts as an antioxidant in the body, protecting cells from damage caused by free radicals.
- Studies suggest that it may improve sperm quality and fertility in men and reduce the risk of miscarriage in women.
- **Dosage:** The tolerable upper intake level for selenium is 400 mcg per day for adults.

**Signs of deficiency:**
- Unexplained weight loss
- Muscle Weakness
- Cognitive issues
- Fatigue
- Hair loss

**Selenium-rich foods:**
Brazil nuts are one of the best sources of selenium, with just one nut providing over 100% of the daily recommended intake.

**BRANDS I LIKE**
- Codeage Liposomal Selenium
The optimal dosage of spermidine for specific health benefits has not been firmly established, as research is ongoing. Dosages recommended by manufacturers may vary, but generally, they range from 250 to 500 milligrams (mg) per day. Spermidine can also be obtained through dietary sources such as wheat germ, soybeans, mushrooms, chicken, mangoes, peas and aged cheese.

**How it helps:**
- Autophagy activation for cellular health
- Anti-aging effects
- Cardiovascular health
- Cognitive function
- Cancer prevention
- Protects DNA from damage caused by oxidative stress
- Improves reproductive fertility in both sexes

**Contraindication:**
- There are no known adverse side effects from spermidine supplementation.
- There have been a number of studies conducted with it, and the results suggest that it is well tolerated.

**Dosage:**
- The optimal dosage of spermidine for specific health benefits has not been firmly established, as research is ongoing.
- Dosages recommended by manufacturers may vary, but generally, they range from 250 to 500 milligrams (mg) per day
- Spermidine can also be obtained through dietary sources such as wheat germ, soybeans, mushrooms, chicken, mangoes, peas and aged cheese.
L-Theanine (Green Tea) is a flavonoid with many health benefits. Catechins are polyphenols that reduce free radicals in the cells and protect cells from cell damage. They are found in plant foods, but more are abundant in green tea. Take 500-1000 mg/day with a meal.

**How it helps:**
- Antioxidant
- Anti-inflammatory
- Anti-diabetic
- Antiviral
- Ant-bacterial
- Anticancer
- May reduce blood pressure
- May reduce stroke and coronary artery disease

**Anti-cancer effects:**
- Works best in combination with resveratrol.
- Promotes/ inhibits signal transmission in cancer.
- In combination with chemotherapy improves cancer cell sensitivity to chemotherapeutics reducing amount of chemotherapy.

**Most effective in the following types of cancers:**
- prostate
- breast
- uterus
- ovary
- colorectal
- glioma
- liver
- gallbladder
- melanoma
- lung

**BEST SOURCES FOR GREEN TEA AND L-THEANINE SUPPLEMENTS:**
- DOMATCHA
- VITAL NUTRIENTS L-THEANINE
- RYZES MATCHA
Zinc is the second most abundant mineral in your body (next to iron) and plays a crucial role in immunity. Your body can't store zinc, so you must get it from foods or supplements every day.

**How it helps:**
- Supports a healthy immune system
- Helps wounds heal by promoting cell growth and tissue repair
- Essential for the synthesis of proteins, which in turn help with the growth and repair of tissues
- Involved in DNA synthesis
- Maintains healthy sense of taste and smell
- Needed for the production of testosterone in men and plays a role in supporting reproductive health in both men and women

**Signs of deficiency:**
- Unexplained weight loss
- Poor wound healing
- Skin rashes/acne
- Diarrhea
- Loss of appetite
- Frequent infections
- Hair loss
- Delayed sexual maturation
- Lack of taste and smell

**Zinc-rich foods:**
- Oysters
- Beef
- Chicken
- Tofu
- Pumpkin seeds
- Lentils
- Yogurt
- Oatmeal

**BRANDS I LIKE**
- NEW CHAPTER FERMENTED ZINC COMPLEX
- GARDEN OF LIFE VITAMIN CODE RAW ZINC CAPSULES
- THORNE ZINC PICOLINATE
- METAGENIC ZINC A.G

**BEST FORMS OF ZINC:**
- ZINC PICOLINATE
- ZINC MONOMETHIONINE
Here our list extends to mouthwashes, ointments, povidone iodine mixes, probiotics, and food supplements.

**Mouthwashes:**
- With Cetylpyridineum Chloride
  - ACT
  - Scope
  - Crest
- With essential oils
  - Listerine
  - Hello Alcohol Free Mouthwash

**Povidone iodine pre-made mixtures:**
- Immunemist
- Viraldine
- Terragenx
- Cofixrx

**Essential Oil Ointments:**
- Vicks Vaporub

**BRANDS I LIKE:**
- ERBAVIVA NATURAL CHEST BALM
Pharmacy Grade Supplement Websites:

- https://www.swansonvitamins.com/
- https://www.naturessunshine.com/
- https://fullscript.com/ (need a referral from a provider to create an account)
- https://www.vitaminshoppe.com/
- https://www.vitacost.com/
- https://www.iherb.com/
- https://lumanutrition.com/
- https://www.integrativepro.com/
- https://aceva.com/
- https://cellcore.com/
- https://biocidin.com/
- https://www.metagenics.com/
- https://www.thorne.com/
- https://melaleuca.com/
- https://emersonecologics.com/ (nurses and providers can sign up and offer clients a code. Nurses and providers can sign up for free)
- https://www.mannavital.com/ (Belgium)
- https://www.myhealth.be/ (Belgium)
- https://algodon.com/neuroprotek/ Neuroprotek (luteolin-It is formulated to maximize effects of flavonoids while also overcoming any absorption obstacles)
- https://ver.so/ Verso for spermidine and luteolin