



Daily Dose on Vitamins and Minerals

MULTIVITAMIN

A multivitamin is recommended during certain stages of life including during weight loss and if experiencing certain disease states.

General Health/Preoperative Guidelines:

- ▶ 100-200% Recommended Dietary Intake (RDI)
- ▶ Menstruating women: 18mg iron
- ▶ Non-menstruating women: 8mg iron
- ▶ No gummies, energy formulas or extra herbal supplements
- ▶ Suggested options: Centrum, One a Day, Nature Made or generics of these brands

Postoperative Bariatric Surgery:

- ▶ Choose multivitamin from either Celebrate or Bariatric Advantage brands.



CALCIUM

Many people do not consume adequate amounts of calcium in their food. Daily recommended calcium citrate intake in divided doses totaling 1000–1200mg. Common food sources include dairy products, dark leafy greens, fortified cereals and soy products. Other forms of calcium that are not recommended include calcium carbonate, Tums and coral calcium, due to the lower absorption content of these forms.

Common reasons for calcium deficiency:

- ▶ Low intake of calcium-rich foods
- ▶ Surgeries that affect absorption of nutrients
- ▶ Low vitamin D levels
- ▶ Long-term use of acid reduction drugs

General Health/Preoperative Guidelines:

- ▶ Anyone less than 50 years old: aim for 500mg twice daily for a total of 1000mg
- ▶ Women older than 50 or pregnant: aim for 600mg twice daily for a total of 1200–1500mg

Post-Operative Bariatric Surgery:

- ▶ Men: aim for 500mg twice daily for a total of 1000mg
- ▶ Women: aim for 500mg three times daily for a total of 1500mg

Common name brand forms of calcium citrate include Citrical and its generics.

IRON

Iron is a mineral in your body that is important for building red blood cells, carrying oxygen, proper immune system function, detoxification and growth and development. When your iron becomes too low, you may develop iron deficiency/anemia, which means your body does not have enough iron to make blood cells normally. Common foods that are high in iron include meat, beans, nuts and broccoli.

Common reasons for iron deficiency include:

- ▶ Long-term use of acid-reducing drugs
- ▶ Heavy menstrual cycles
- ▶ Limited intake of iron-rich foods
- ▶ Bleeding inside your body
- ▶ Bariatric surgery

Four tests make up an iron panel:

- ▶ Iron: measures iron circulating in your blood stream
- ▶ TIBC: searches for extra iron in the body and accessibility of iron stores
- ▶ Ferritin: measures liver stores of iron
- ▶ Percent saturation: measures amount of iron bound to red blood cells

Symptoms of iron deficiency may include:

- ▶ Shortness of breath
- ▶ Feeling dizzy/lightheaded
- ▶ Feeling cold
- ▶ Headache
- ▶ Brittle nails
- ▶ Hair loss
- ▶ Restless leg syndrome
- ▶ Cravings for ice or other non-food items

If iron deficiency persists, it can increase the risk for developing an infection and heart problems.

Do not take iron and calcium supplements together as they compete for absorption; take them two hours apart. Also, do not take iron with any coffee or tea products.

VITAMIN D

Vitamin D is fat-soluble and is found in calcium-rich foods such as milk, yogurt and fatty fish like salmon and tuna. Your skin can also make it after sun exposure. Vitamin D helps the body absorb calcium from food and supplements. Also, it is important for immunity, growth and development.

continued

Common reasons for vitamin D deficiency:

- ▶ Being overweight or obese
- ▶ Limited exposure to sunlight
- ▶ Having a darker skin tone
- ▶ Gastrointestinal surgeries
- ▶ Kidney disease

Symptoms of vitamin D deficiency may include:

- ▶ Muscle tics, twitches or spasms
- ▶ Unexplained fractures
- ▶ Seizure
- ▶ Depression (Seasonal Affective Disorder)
- ▶ Loss of balance/increased falling
- ▶ Arrhythmia/hypertension
- ▶ Fatigue

THIAMINE (B1)

Thiamine, also known as B1, is one of eight B vitamins. Thiamine is important because it takes energy from carbohydrates from the food you eat and breaks it down into energy for your brain, nerves and heart. Your body stores very little thiamine, so deficiencies can happen very quickly, especially if you are not eating much or if you are vomiting. Food sources high in thiamine include whole grains, cereals and beans.

Common reasons for thiamine deficiency:

- ▶ Persistent vomiting
- ▶ Poor dietary intake including high intake of refined carbohydrates and highly processed meats
- ▶ Inconsistencies in taking daily multi-vitamin/minerals

Symptoms of thiamine deficiency may include:

- ▶ Loss of appetite
- ▶ Fatigue
- ▶ Difficulty concentrating
- ▶ Weakness
- ▶ Sleepiness
- ▶ Leg and foot cramping
- ▶ Burning feet
- ▶ Headache
- ▶ Constipation
- ▶ Confusion
- ▶ Difficultly talking/swallowing

VITAMIN B12

Vitamin B12 is water-soluble and one of eight B vitamins. It is important for the function of your nerves and for the production of energy in your cells. B12 also works with folic acid to make red blood cells. It is common for people with a B12 deficiency to develop anemia. B12 is commonly found in animal products such as meat and eggs.

Common reasons for B12 deficiency:

- ▶ Prolonged use of Metformin
- ▶ Bariatric surgery or other procedures that effect absorption
- ▶ Long-term use of acid-reducing drugs
- ▶ Heavy alcohol use
- ▶ Vegetarian or vegan diet
- ▶ Conditions effecting the small intestine like Crohn's or celiac disease

Symptoms of B12 deficiency may include:

- ▶ Fatigue
- ▶ Dizziness or heart palpitations
- ▶ Shortness of breath
- ▶ Numbness and tingling of hands and feet
- ▶ Sore/swollen tongue
- ▶ Poor appetite
- ▶ Memory issues/neurological issues.

ZINC

Zinc is a mineral involved in numerous body functions including immune function, digestion, growth, development, skin and hair health and wound healing. Because zinc affects so many systems, there is no single distinct symptom of deficiency. Good sources of zinc include red meat, nuts, beans and oysters.

Reasons for zinc deficiency:

- ▶ Inconsistency with multivitamin supplementation
- ▶ Persistent diarrhea
- ▶ Vegetarian or vegan diet
- ▶ Taking large doses of iron or copper for prolonged periods of time

Signs of zinc deficiency may include:

- ▶ Diminished smell and taste
- ▶ Poor wound healing
- ▶ Hair loss
- ▶ Roughness of skin/rashes
- ▶ Low libido
- ▶ Canker sores
- ▶ Deformed nails

COPPER

Copper is a mineral involved in the production of red blood cells and keeping the immune system healthy. It is primarily absorbed in the stomach. Good sources of copper include chocolate, organ meats, nuts and beans.

Symptoms of copper deficiency may include:

- ▶ Low body temperature
- ▶ Bone fractures
- ▶ Low white blood cell count
- ▶ Irregular heartbeat
- ▶ Loss of pigment in skin
- ▶ Thyroid problems
- ▶ Poor response to iron repletion
- ▶ Zinc deficiency
- ▶ Numbness/tingling in lower extremities

NOTE:

Existing zinc and copper deficiencies can contribute to ineffective iron repletion or lowering iron levels. Repletion of these two minerals should be accomplished under the supervision of a healthcare professional as excess amounts can mineralize in the liver and cause toxic levels.

Reasons for deficiency include:

- ▶ Interactions with zinc, calcium and iron supplements
- ▶ Low vitamin A levels
- ▶ Surgeries causing malabsorption
- ▶ Intestinal diseases such as Crohn's or celiac sprue.
- ▶ Kidney disease

Multivitamin: _____

Calcium: _____

Iron: _____

B12: _____

Other: _____

Other: _____

TIME OF DAY	VITAMIN/MINERAL
5am	
6am	
7am	
8am	
9am	
10am	
11am	
12pm	
1pm	
2pm	
3pm	
4pm	
5pm	
6pm	
7pm	
8pm	
9pm	
10pm	
11pm	

Daily protein needs (in grams): _____

Grams of protein/day: _____

Daily fiber needs (grams): _____

Daily calorie needs: _____

Multivitamin: _____

Calcium: _____

Iron: _____

B12: _____

Other: _____

Other: _____

TIME OF DAY	VITAMIN/MINERAL
5am	
6am	
7am	
8am	
9am	
10am	
11am	
12pm	
1pm	
2pm	
3pm	
4pm	
5pm	
6pm	
7pm	
8pm	
9pm	
10pm	
11pm	

Daily protein needs (in grams): _____

Grams of protein/day: _____

Daily fiber needs (grams): _____

Daily calorie needs: _____