

Nourish to Flourish

Vitamins and Minerals Unpacked

Shirley Siu, RD, CSOWM

October 15th, 2025



Poll:

Which vitamin or mineral supplement do you take routinely?

Join by QR code
Scan with your camera app








Join by Web


PollEv.com/nataliedaher637

Results

The screenshot shows a survey results interface. At the top, there is a navigation bar with a bar chart icon, a back arrow, the title '# 7 - Vitamins and Minerals', and two buttons: 'Visual settings' and 'Edit'. Below the navigation bar is a sidebar with a list icon and a share icon. The main content area is a large white box with rounded corners and a blue border. It contains a lock icon and the text 'Activity is now locked. Responses are not accepted at this time.' Below this is a question: 'Which vitamin or mineral supplement do you take routinely?'. Underneath the question is a 'Loading...' indicator. At the bottom of the main content area, it says 'Nobody has responded yet.' and 'Hang tight! Responses are coming in.'

 < # 7 - Vitamins and Minerals  Visual settings  Edit

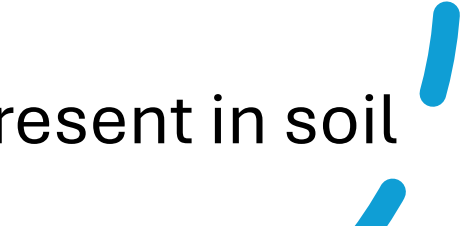
 Activity is now locked.
Responses are not accepted at this time.

Which vitamin or mineral supplement do you take routinely?

Loading...

Nobody has responded yet.
Hang tight! Responses are coming in.

What are vitamins and minerals?

- Essential micronutrients required by the body to carry out important functions
 - Must be derived from diet
 - Absorption and utilization rates are influenced by concentrations in body tissues to maintain balance
 - Vitamins: organic compounds present in animal and plants classified into fat or water-soluble
 - Minerals: inorganic elements present in soil and water
- 

Fat Soluble Vitamins



- Requires dietary fat for absorption
- Excess intake can be toxic as they are store in fatty tissues and liver
- Dietary intake of Vitamin A and E, but not supplements, have been associated with reduced risk of cardiovascular disease and respiratory infections.

Name	Dietary Reference Intakes	Function
A (retinoids and beta-carotene)	RDA: 700-900 RAE	vision, epithelial cell regulation, wound healing, bone health
D (ergocalciferol and cholecalciferol)	RDA: 600 IU (15 mcg)	calcium absorption and bone health, muscle and immune function, cell growth
E (tocopherols)	RDA: 15 mg (22.4IU)	membrane integrity, antioxidant properties, immune function, skin health
K (K1 –phylloquinones, K2-menaquinones)	RDA: 90-120mcg	blood clotting, bone health

Water Soluble Vitamins



- Must dissolve in water before absorption by the body.
- Most cannot be stored requiring regular intake
- Unused amounts primarily lost through urine.
- Deficiencies are uncommon

Name	Dietary Reference Intakes	Function
C	RDA: men 90mg, women 75mg	synthesis of collagen, carnitine, neurotransmitters, antioxidant properties
B1 (Thiamine)	RDA: Men: 1.2 mg, Women: 1.1 mg	Energy metabolism, RBC production, nervous system and immune Function Neurotransmitter Synthesis: Amino Acid Metabolism, Hormone regulation, cognitive development
B2 (Riboflavin)	RDA: men 1.3 mg, women: 1.1 mg	
B3 (Niacin)	RDA: Men: 16 mg, Women: 14 mg	
B6 (Pyridoxine)	RDA: Men and women: 1.3 mg	
B5 (Pantothenic Acid)	AI: Men and Women: 5mg	Lipid metabolism, hormone production, neurotransmitter synthesis, energy and amino acid metabolism
B7 (Biotin)	AI: men and women 30mcg	
B9 (Folate)	RDA men and women*: 400 DFE	neural tube development, cell division and growth, AA metabolism, synthesis of neurotransmitters, RBC formation, DNA synthesis, energy metabolism, cognitive function
B12 (Cobalamin)	Men and women: 2.4 mcg	

Common & Trace Minerals

- Common minerals (electrolytes) are stored and circulated largely within body tissues controlled by endocrine and intestinal system
- Trace minerals interact with each other and compete for receptor sites
- Supplement only under supervision

Name	Dietary Reference Intakes	Function
calcium	RDA: men and women 1000mg	bone health, muscle contraction (including heart), nerve transmission, blood clotting, hormonal secretion
potassium	AI: women 2600mg, men 3400mg	Nerve and muscle function, fluid balance, cellular energy, blood pressure and heart health
sodium	AI: men and women 1500mg (less than 2300mg)	
magnesium	RDA: men 400mg, women: 310mg	
iron	RDA: men: 8 mg, women: 8 to 18mg	oxygen transport, physical growth, neurological development, cellular functioning, hormone synthesis
zinc	RDA: men 11mg, women 8-11mg	wound healing, insulin synthesis and glucose control, immune function
copper	RDA: men and women 900mcg	energy production, iron metabolism, connective tissue synthesis, and neurotransmitter synthesis

Vitamins & Minerals – Food Sources



QUALITY PROTEIN

Eggs, Lean Meat, Seafood, Poultry: B12, Zinc, Iron, Biotin, Thiamine

Shellfish & canned fish with bones: Iron, calcium, Magnesium

Dairy & Fortified Soy: Calcium, Vitamin A

Soybeans: E, K, Folate, Biotin, calcium

Beans/Peas/Lentils: Biotin, B1, Iron, Magnesium



OILS

(oily fish, oils, nuts, seeds)

Oily fish, fish liver oils: D, A, K

Sunflower, pumpkin seeds: E, B5, thiamine, Folate, B3,

Nuts: E, Magnesium

Olive, canola oils: E, K



WHOLE GRAINS & WHOLE GRAIN PRODUCTS:

barley (not pearled), brown rice, buckwheat, bulgur, millet, oats, popcorn, quinoa, dark rye, whole-grain cornmeal, whole-wheat bread, whole-wheat chapati, whole-grain cereals)

Folate, Biotin, Niacin, Riboflavin, Thiamine, Zinc, iron, magnesium, potassium, E, A



VEGETABLES & FRUITS

Green Leafy & Cruciferous: folate, K, E, Iron, Zinc, calcium, potassium, magnesium

Orange-Yellow-Red vegetables: A

Citrus Fruits: C, potassium

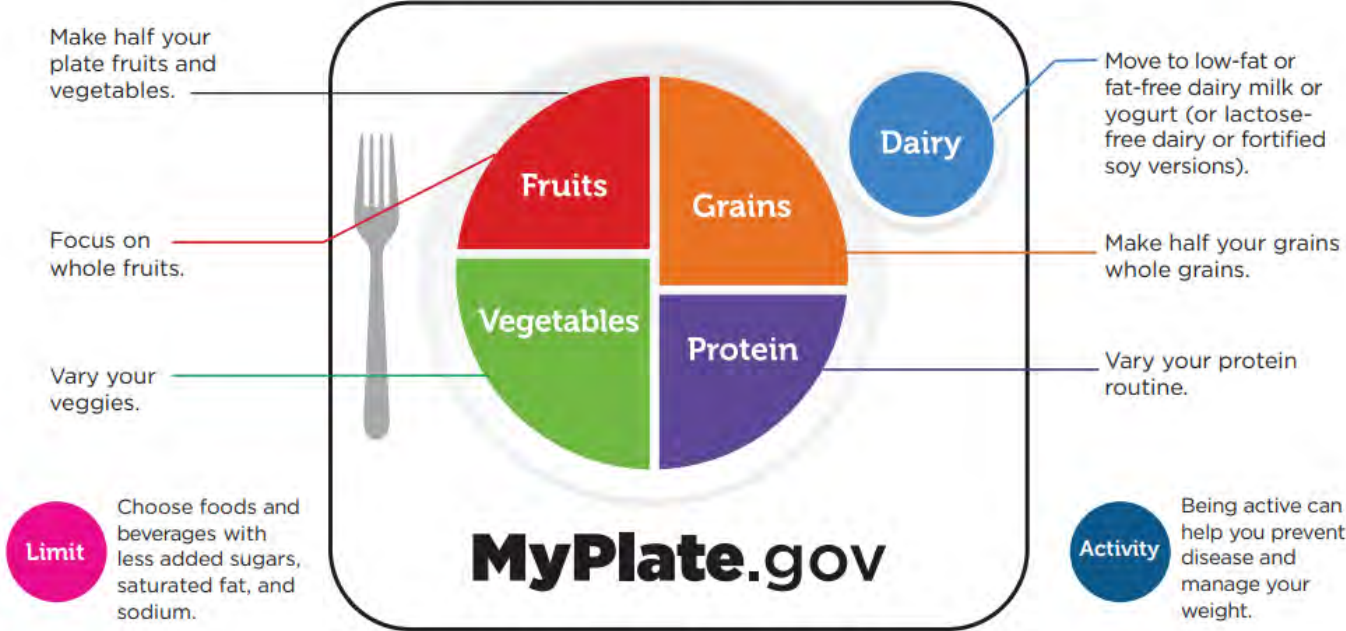
Berries: K, C

Mushrooms: Niacin, Riboflavin

Focus on meeting needs with nutrient dense whole foods

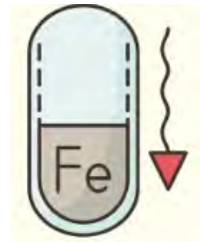
Start simple with MyPlate

Healthy eating is important at every life stage, with benefits that add up over time, bite by bite. Small changes matter.



Who may need supplements?

- Chronic health conditions (gastrointestinal surgery, gastrointestinal disorders, chronic kidney disease, certain medications)
- Dietary restrictions
- Pregnancy or lactation
- History of deficiencies



Choosing a supplement



Reputable companies



Third-Party Testing



Do not exceed recommended intakes unless under supervision of healthcare provider



Check with your pharmacist on supplement-medication interaction



Consult and follow-up with healthcare team



Thank you!

Next *Nourish to Flourish* webinar on November 19th

