

Vitamins VS Minerals

Vitamins and minerals are often referred to as micronutrients because we only need them in small amounts in our diet.¹ However, making sure we eat the recommended amounts is vital to our well-being, with micronutrients often playing a major role in development, growth, and disease prevention.¹

VITAMINS^{2,3}

Vitamin A, C, D, E, K, & B Vitamins
(thiamin, riboflavin, niacin, B6, B12, pantothenic acid, biotin, folate)

ORGANIC

Found naturally in living sources (plants & animals)

UNSTABLE

Can be broken down by heat, air, or acid

MINERALS^{2,4}

calcium, chloride, chromium, copper, iodine, iron, magnesium, manganese, molybdenum, selenium, sodium, phosphorus, potassium, selenium, zinc

INORGANIC

Found naturally in non-living sources (soil & water)

STABLE

Hold their chemical structure

Water Soluble Vitamins^{2,3}

C, B Complex

FUNCTIONS

Energy metabolism and production
Building proteins, cells, and tissue

TRANSPORT / STORAGE

Circulate freely and easily excreted

ADDITIONAL NOTES

Easily destroyed by certain cooking methods (high heat & long cook times such as boiling)

Major Minerals^{2,4}

calcium, chloride, magnesium, phosphorus, potassium, sodium

REQUIRED IN LARGER AMOUNTS
(>100 mg/day)

FUNCTIONS

Maintains the body's water balance
Provides structure for bones, hair, skin, nails

Fat Soluble Vitamins⁵

A, D, E, K

FUNCTIONS

Build bones
Protect vision
Act as antioxidants

TRANSPORT / STORAGE

Requires dietary fat to also be consumed for proper absorption and use in the body

ADDITIONAL NOTES

Higher risk of toxicity

Trace Minerals^{2,4}

copper, chromium, iodine, iron, fluoride, manganese, molybdenum, selenium, zinc

REQUIRED IN SMALLER AMOUNTS
(<100 mg/day)

FUNCTIONS

Carrying oxygen in the blood
Forming / enhancing key enzymes

References:

1. Center for Disease Control (CDC) (2024, Mar 29). Micronutrient facts. Accessed Nov 15, 2024. <https://www.cdc.gov/nutrition/features/micronutrient-facts.html>
2. U.S. Food and Drug Administration (2021, Oct). Interactive Nutrition Facts Label - Vitamins and Minerals. FDA Nutrition Education Resources and Materials. Accessed Oct 21, 2024. https://www.accessdata.fda.gov/scripts/interactiveNutritionFactsLabel/assets/InteractiveNFL_Vitamins&Minerals_Oct2021.pdf
3. National Library of Medicine (US). Vitamins. Medline Plus. Accessed Oct 21, 2024. <https://medlineplus.gov/vitamins.html>
4. National Library of Medicine (US). Minerals. Medline Plus. Accessed Oct 21, 2024. <https://medlineplus.gov/minerals.html>
5. Reddy P, Jialal I. Biochemistry, Fat Soluble Vitamins. In: StatPearls. Treasure Island (FL): StatPearls Publishing; September 19, 2022.

Updated November 2024