Vitamins Glossary

Antioxidant
A substance that inhibits oxidation and neutralizes free radicals, reducing cellular damage.

Antivitamin
A compound that inhibits the absorption or action of a vitamin.

Avitaminosis
A disease caused by a complete lack of a specific vitamin.

Bioavailability
The degree to which a nutrient becomes available to the target tissue after ingestion.

Cofactor
A non-protein chemical (often a metal ion or organic molecule) that is required for enzyme function.

Coenzyme
A specific type of organic cofactor that assists enzymes in catalyzing biochemical reactions.

Deficiency Disease
A disease resulting from inadequate intake or absorption of a vitamin (e.g., scurvy, rickets).

Fat-soluble
Describes substances that dissolve in fats or oils and are stored in fatty tissue (vitamins A, D, E, K).

Fortification
The process of adding essential nutrients (including vitamins) to foods to prevent or correct a deficiency.

Hypervitaminosis
Toxic effects caused by excessive intake of a vitamin, particularly fat-soluble ones.

Micronutrient
A nutrient needed in minute quantities (typically vitamins and minerals) for proper growth and metabolism.

Nutraceutical
A food-derived product with health benefits, often containing concentrated vitamins or minerals.

Provitamin
A compound that can be converted into an active vitamin form in the body (e.g., beta-carotene $\rightarrow$ vitamin A).

RDA (Recommended Dietary Allowance)
The daily intake level sufficient to meet the nutrient needs of nearly all (97–98%) healthy individuals.

Solubility
The ability of a vitamin to dissolve in either water or fat, affecting absorption and storage.

Tolerable Upper Intake Level (UL)
The highest daily intake unlikely to cause adverse health effects.

Vitamers
Structurally related compounds that show the same biological vitamin activity (e.g., retinol, retinal, and retinoic acid are vitamers of vitamin A).

Water-soluble
Refers to vitamins that dissolve in water, are not stored extensively in the body, and are excreted in urine (e.g., B-complex and C vitamins).