

Vitamin Equivalents and Recommended Daily Allowances (RDA)

IU to mg/ μ g Equivalents for Fat-Soluble Vitamins

Vitamin	International Unit (IU)	Equivalent in mg or μg
Vitamin A (Retinol)	1 IU	0.3 μ g retinol or 0.6 μ g beta-carotene
Vitamin D	1 IU	0.025 μ g cholecalciferol
Vitamin E (α -Tocopherol)	1 IU	0.67 mg d- α -tocopherol or 1 mg dl- α -tocopherol acetate

Conversion Between mg/ μ g and IU for Fat-Soluble Vitamins

Vitamin	From mg/μg to IU	From IU to mg/μg
Vitamin A	1 μ g retinol = 3.33 IU	1 IU = 0.3 μ g retinol
Vitamin D	1 μ g = 40 IU	1 IU = 0.025 μ g
Vitamin E (d- α -tocopherol)	1 mg = 1.49 IU	1 IU = 0.67 mg
Vitamin K (phylloquinone)	No fixed conversion	Usually measured in μ g only

Water-Soluble Vitamins – Common Units and Equivalents

Vitamin	IU Unit	Equivalent in mg or μg
Vitamin C	Not usually in IU	1 mg = 1 mg Ascorbic acid
Vitamin K	Not usually in IU	1 μg = 1 μg phyloquinone or menaquinone
Vitamin B1 (Thiamine)	Not measured in IU	1 mg = 1 mg Thiamine
Vitamin B2 (Riboflavin)	Not measured in IU	1 mg = 1 mg Riboflavin
Vitamin B3 (Niacin)	Not measured in IU	1 mg = 1 mg Niacin
Vitamin B6 (Pyridoxine)	Not measured in IU	1 mg = 1 mg Pyridoxine
Vitamin B9 (Folic Acid)	Not measured in IU	1 μg = 1 μg Folic Acid
Vitamin B12 (Cobalamin)	Not measured in IU	1 μg = 1 μg Cobalamin

Recommended Daily Allowance (RDA) for Vitamins

The following values represent the recommended daily intake for healthy adults. Values may vary by age, gender, or health status. Based on sources like NIH and WHO.

Vitamin	RDA	Unit	Notes
Vitamin A	900	µg	700 µg for women
Vitamin D	15	µg (600 IU)	Up to 800 IU for the elderly
Vitamin E	15	mg	α-Tocopherol
Vitamin K	120	µg	90 µg for women
Vitamin C	90	mg	75 mg for women
Vitamin B1 (Thiamine)	1.2	mg	1.1 mg for women
Vitamin B2 (Riboflavin)	1.3	mg	1.1 mg for women
Vitamin B3 (Niacin)	16	mg	14 mg for women
Vitamin B5 (Pantothenic acid)	5	mg	Same for both sexes
Vitamin B6 (Pyridoxine)	1.3–1.7	mg	Depends on age and gender
Vitamin B7 (Biotin)	30	µg	Same for both sexes
Vitamin B9 (Folic acid)	400	µg	600 µg for pregnant women
Vitamin B12 (Cobalamin)	2.4	µg	Increased during pregnancy/lactation

RDA :Recommended Dietary Allowance