

Unit Conversions

dl 2/2021

In May 2016, the U.S. Food and Drug Administration (FDA) announced regulations that require amendments to the existing supplement facts label, which uses units and conversions based on the 1968 Recommended Daily Allowances (RDA). The new regulations will be mandatory in 2019-2020. Voluntary compliance prior to that date is permitted, and it is expected that there will be a period of time when both types of labels will be on the market.

The changes that will affect the application of DSID results are the changes in the units used to declare vitamins and minerals on supplement labels. The FDA will permit manufacturers to include the amounts of nutrients in the old units in parentheses adjacent to the amounts in the new units. For more information from the FDA, click [here](#).

Nutrient	Current DV Unit*	Current Conversion*	New DV Unit (required by 2019-2020)	New Conversion (required by 2019-2020)
Vitamin A	IU	1 IU = 0.3 mcg retinol 1 IU = 0.6 mcg beta-carotene	mcg RAE	1 mcg RAE = 1 mcg retinol 1 mcg RAE = 2 mcg supplemental beta-carotene 1 mcg RAE = 12 mcg beta-carotene 1 mcg RAE = 24 mcg alpha-carotene 1 mcg RAE = 24 mcg beta-cryptoxanthin
<p>5000 IU Vitamin A = 1667 mcg retinol 3000 mcg retinol = 10,000 IU</p>				
Vitamin E	IU	1 IU = 0.67 mg for <i>d</i> -alpha-tocopherol (natural) 1 IU = 0.9 mg for <i>d,l</i> -alpha-tocopherol (synthetic)	mg alpha-tocopherol	1 mg vitamin E (as alpha-tocopherol) label claim = 1 mg of natural α -tocopherol 1 mg vitamin E (as alpha-tocopherol) label claim = 2 mg of synthetic α -tocopherol
<p>400 IU Vit E = 267 mg d-alpha</p>				
Vitamin D	IU	1 IU = 0.025 mcg	mcg	1 IU = 0.025 mcg
<p>4000 IU Vit D = 100 mcg</p>				
Folate	mcg		mcg DFE	1 mcg DFE = 1 mcg folates 1 mcg DFE = 0.6 mcg folic acid
Niacin	mg		mg NE	1 mg NE = 1 mg niacinamide 1 mg NE = 1 mg inositol hexanicotinate 1 mg NE = 1 mg niacin 1 mg NE = 60 mg tryptophan
<p>1 mg niacin = 1 mg niacinamide = 60 mg tryptophan 50 mg niacin = 3000 mg tryptophan 500 mg tryptophan = 8.33 mg niacin</p>				

Labeling Units of Measure

mcg: microgram. One millionth of one gram.

mg: milligram. One thousandth of one gram.

IU: International Unit is a measure of biological activity and is different for each substance.

RAE: Retinol Activity Equivalent.

DFE: Dietary Folate Equivalent

NE: Niacin Equivalent.