

Understanding daily values and nutrient doses

A practical guide to %DV, RDA, AI, UL, serving-size math, and the units used on nutrition and supplement labels.

The most important distinction: A label's Daily Value is a general reference used for labeling. It is not automatically your personal requirement, a treatment dose, or a target for supplementation.

The quick reading sequence

- Check the serving size.
- Read the amount per serving and its unit.
- Use %DV for general context when one is established.
- Check whether another product contains the same nutrient.
- Use age-, sex-, and life-stage-specific guidance when individual planning matters.

What this guide does

This guide explains reference values and label math. It does not diagnose a deficiency, determine an individual dose, or recommend a product. Medicines, health conditions, pregnancy, laboratory results, dietary intake, and professional guidance can change what is appropriate.

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1. Four values that answer different questions

Daily Value and Dietary Reference Intake terms are related, but they are not interchangeable. Start by asking what decision the number was designed to support.

TERM	PLAIN-LANGUAGE MEANING	BEST USE
DV / %DV	A single labeling reference. %DV shows how much one serving contributes relative to that DV.	Comparing packaged foods or supplements and interpreting one serving.
RDA	An average daily intake sufficient for nearly all healthy people in a specific age and sex group.	Planning nutritionally adequate intake for individuals when an RDA exists.
AI	An intake assumed to be adequate when evidence is insufficient to establish an RDA.	A planning reference when no RDA has been set.
UL	The highest average daily intake unlikely to pose risk for most people in the specified group.	Assessing the risk of excessive total intake. It is not a recommended target.

Do not use the UL as a goal. It marks an upper boundary for risk assessment, not an amount people should try to reach. Some ULs apply to total intake, while others apply only to supplements, fortified foods, or specific forms; check the nutrient-specific source.

Why values differ

- RDA, AI, and UL values can vary by age, sex, pregnancy, and lactation.
- The label usually uses one DV for adults and children age 4 and older.
- A person's medical treatment dose can differ from general dietary reference values and requires clinical oversight.
- A nutrient may have no established Daily Value even though the label lists an amount per serving.

2. Read the serving before the percentage

The amount and %DV apply to the stated serving size. If the label says two capsules per serving, the listed amount is for two capsules—not one.

LABEL INFORMATION	ONE SERVING	WHAT YOU ACTUALLY TAKE
Serving size: 2 capsules Vitamin C: 60 mg 67% DV	2 capsules = 60 mg = 67% DV	1 capsule = about 30 mg = about 33.5% DV, if the ingredient is evenly distributed.
Serving size: 1 scoop Magnesium: 100 mg 24% DV	1 scoop = 100 mg = 24% DV	2 scoops = 200 mg = about 48% DV—and twice every other listed ingredient.

The %DV formula

%DV = amount in one serving ÷ established Daily Value × 100

Example: 45 mg vitamin C ÷ 90 mg DV × 100 = 50% DV.

Use the FDA's quick context carefully

For label reading, 5% DV or less per serving is considered low and 20% DV or more is considered high. This describes the contribution of one serving. It does not establish that a high-dose supplement is needed, safer, or better.

When you combine products

- Add the amount in mg or mcg across products; do not simply add percentages from incompatible label bases.
- Include multivitamins, single nutrients, powders, gummies, drinks, and fortified foods.
- Compare the same nutrient form and unit where relevant.
- Check the total against the appropriate individual reference and safety information with a professional when needed.

3. Units and conversions

A thousand-fold difference separates grams, milligrams, and micrograms. Always keep the unit attached to the number.

RELATIONSHIP	CONVERSION
1 gram (g)	1,000 milligrams (mg)
1 milligram (mg)	1,000 micrograms (mcg)
1 gram (g)	1,000,000 micrograms (mcg)

Examples: 0.4 mg = 400 mcg. 2,000 mcg = 2 mg. 1.5 g = 1,500 mg.

International Units (IU) cannot be converted to mg or mcg with one universal formula. The conversion depends on the specific nutrient and form. Use an authoritative nutrient-specific source.

My label-comparison worksheet

NUTRIENT	PRODUCT	SERVING	AMOUNT	UNIT	%DV

4. From label number to responsible decision

A label comparison is useful, but it is only one step. Need, total intake, formulation, safety, interactions, and duration still matter.

1	Define the purpose	What specific dietary gap, life-stage need, or clinical question is being addressed?
2	Calculate the actual intake	Use the real serving, amount, unit, frequency, and every source of the nutrient.
3	Choose the right reference	Use %DV for label context and age- and life-stage-specific DRIs for individual planning.
4	Check the safety context	Review the UL, nutrient-specific cautions, medicines, health conditions, procedures, and tests.
5	Set a review plan	Know how benefit, side effects, laboratory follow-up, and duration will be assessed.

Common interpretation mistakes

- Assuming 100% DV is the ideal supplement dose for every person.
- Treating 500% DV as evidence that a product is five times better.
- Using the UL as a target instead of an upper risk boundary.
- Comparing 400 mcg with 400 mg as though the units were equal.
- Ignoring the serving size or the same nutrient in other products.
- Assuming 'Daily Value not established' means the ingredient is proven safe or effective.

References and further reading

FDA. Daily Value on the Nutrition and Supplement Facts Labels. [fda.gov/food/nutrition-facts-label/](https://www.fda.gov/food/nutrition-facts-label/)

FDA. Dietary Supplement Labeling Guide: Chapter IV - Nutrition Labeling.
[fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/](https://www.fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/)

NIH Office of Dietary Supplements. Nutrient Recommendations and Databases.
ods.od.nih.gov/HealthInformation/nutrientrecommendations.aspx

NIH Office of Dietary Supplements. Background Information: Dietary Supplements. ods.od.nih.gov/factsheets/dietarysupplements-Consumer/

USDA and NIH. DRI Calculator for Healthcare Professionals. nal.usda.gov/human-nutrition-and-food-safety/dri-calculator

This guide provides general education and is not medical advice. Reference values and labeling requirements can change; consult current authoritative sources.