Comprehensive Guide: How to Read a Supplement Label (and What to Watch Out For)

1) Start with the "Supplement Facts" panel

This box is required by U.S. law and shows serving size, servings per container, each listed nutrient, and % Daily Value (%DV). The %DV helps you see if you're getting a little or a lot of something per serving. (Tip: amounts must be listed for the **actual nutrient**, not just the source compound—e.g., list "calcium," not "calcium carbonate.") (eCFR)

Quick checks inside the panel

- Serving size: Capsules, scoops, gummies—make sure you're reading the per-serving numbers. (eCFR)
- %DV: 100% DV is not always "better." More isn't always safer—some nutrients have Upper Limits. (NIH's free fact sheets list those.) (Office of Dietary Supplements)

2) Scan the "Other Ingredients" line

This is where the **excipients** live—things that help the product hold together, flow through machines, or look pretty. They're usually safe, but they don't add nutrition. Common ones you'll see:

- Magnesium stearate / stearic acid (lubricants)
- Microcrystalline cellulose (binder/bulking agent)

functional, not nutritional. (ipecamericas.org)

- Silicon dioxide (anti-caking)
- Croscarmellose sodium / sodium starch glycolate (disintegrants)
- Hypromellose / gelatin (capsules)
- Talc (glidant)
 These are widely used excipients in drug and supplement manufacturing. They're

When to raise an eyebrow

- Long lists of "other ingredients" in a basic vitamin can be a sign of heavy processing or lots of sweeteners/colors/flavors.
- Proprietary blends in the Facts panel hide exact amounts. You see the blend's total grams but not how much of each ingredient you're getting—making it hard to judge efficacy. (Dietitians and consumer guides recommend avoiding undisclosed blends.) (<u>EatingWell</u>)

3) Watch for artificial colors (and where policy is heading)

If you prefer to avoid petroleum-derived dyes, look for these names in "Other Ingredients": **FD&C Red No. 40, Yellow No. 5, Yellow No. 6, Blue No. 1, Blue No. 2, Green No. 3**. The FDA is working with industry to **phase out** these six dyes by 2026–2027; Yellow 5 already must be declared by name due to allergy concerns. Europe has already **banned titanium dioxide (E171)** as a food color due to genotoxicity concerns. (U.S. Food and Drug Administration)

What about titanium dioxide?

Used to whiten tablets/capsules. EFSA said it can no longer be considered safe as a food additive; the EU banned it in food (including supplements). The U.S. has not adopted the EU ban, so you may still see it on U.S. labels. (<u>European Food Safety Authority</u>)

4) Sweeteners, flavors, and "no-value" fillers

These make products taste better or look nice but don't add nutrition:

- Artificial sweeteners (aspartame, sucralose, acesulfame K)
- Sugar alcohols (xylitol, sorbitol, erythritol)
- **Flavors** ("natural" or "artificial")
- Colorants / glazing agents (titanium dioxide, shellac, carnauba wax)
 Functionally, they're fine for manufacturing, but if you want a "cleaner" label, choose products with fewer of these extras. (FDA and NIH resources explain how additives and labels work; use them to cross-check unfamiliar names.) (U.S. Food and Drug Administration)

5) Look for quality signals beyond marketing claims

A. GMP Compliance

U.S. supplement makers must follow **21 CFR Part 111** (dietary supplement cGMPs). A brand stating it follows Part 111 is meeting baseline manufacturing controls—good, but not the same as third-party testing. (eCFR)

B. Third-party certifications (real acronyms to know)

- USP Verified Confirms the product contains the ingredients/amounts stated, meets
 purity limits, and breaks down properly. You'll see a USP Verified mark if it passed.
 (USP)
- NSF/ANSI 173 Confirms contents and safety against the NSF/ANSI standard. NSF
 Certified for Sport® also screens for athletic-banned substances. (NSF)
- **USDA Organic** Applies to agricultural ingredients that meet organic standards (you'll see "100% Organic," "Organic," or "Made with Organic..."). (AMS)
- Non-GMO Project Verified The "butterfly" seal means the product meets Non-GMO Project testing/traceability standards (not the same as organic). (Non-GMO Project)

My take: For multis, minerals, and single-ingredient basics, a USP Verified or NSF mark is worth prioritizing. For sports pros or tested student-athletes, prefer NSF Certified for Sport®. For plant-based powders or gummies, USDA Organic and/or Non-GMO Project may also matter to your audience.

6) Red flags that deserve a closer look

- Proprietary blends with big claims and no dosages. (<u>EatingWell</u>)
- **Mega-doses** far above %DV without a clear, medically justified reason. (NIH fact sheets list upper limits and interactions.) (Office of Dietary Supplements)
- Missing contact info or no lot/batch details. (Basic labeling placement is required.)
 (U.S. Food and Drug Administration)
- Heavy use of dyes and whitening agents when not needed. (Policy is shifting away from petroleum-based dyes; EU already bans TiO₂.) (<u>U.S. Food and Drug</u> <u>Administration</u>)

7) Where to fact-check ingredients fast (free & paid)

Free, government & academic

- **NIH Office of Dietary Supplements (ODS)**: easy "Fact Sheets" on vitamins, minerals, botanicals; safety, upper limits, interactions. (Office of Dietary Supplements)
- NIH Dietary Supplement Label Database (DSLD): searchable archive of 200k+ U.S. supplement labels. Great for verifying formulas and comparing brands. (DSLD)

Independent testing & evidence hubs

- **USP** product finder (for **USP Verified** products). (USP)
- NSF database and Certified for Sport® listings. (NSF)
- ConsumerLab (paid): buys products, tests for label accuracy & contamination, publishes reviews. (ConsumerLab.com)
- **Labdoor** (free/paid): buys products, tests, and ranks by label accuracy, purity, ingredient safety, and projected efficacy. (<u>labdoor</u>)
- **Examine.com** (free/paid): research summaries on what ingredients do (not product reviews). Useful for dose ranges that actually have evidence. (Examine)

Fast Label-Reading Checklist (copy-and-paste ready)

- 1. **Goal match?** Does the formula and **dose** match the benefit you want (check NIH/Examine for evidence-based ranges)? (Office of Dietary Supplements)
- Serving reality: How many pills/scoops equal one serving—and how many servings per day? (eCFR)
- %DV sanity: Avoid mega-doses unless a clinician told you to use them. (Office of Dietary Supplements)
- 4. No secret sauces: Skip proprietary blends that hide dosages. (EatingWell)

- Other ingredients: Prefer shorter lists; limit artificial colors/sweeteners if you don't want them. Watch for titanium dioxide if you're avoiding whiteners. (U.S. Food and Drug Administration)
- 6. Quality marks: Look for USP Verified, NSF/ANSI 173, or NSF Certified for Sport®; cGMP (21 CFR 111) is baseline. (USP)
- 7. **Do a quick label lookup:** Check **DSLD** or an independent tester if quality is a question. (DSLD)

Quick explainer: "Fillers" vs. "bad" ingredients

Most "fillers" (excipients) are **functional** and generally recognized as safe; they help tablets press, powders flow, and capsules hold together. They don't nourish you—but they're not automatically harmful. The bigger quality issues are **hidden dosages** (proprietary blends), **excessive colorants/sweeteners**, and **over- or under-dosing** versus what evidence supports. (<u>ipecamericas.org</u>)

A note on kids, athletes, pregnancy & meds

If the product is for a child, you're drug-tested for sport, you're pregnant/breastfeeding, or you take prescription meds, the safety bar is higher—lean hard on **NSF/USP** products and check NIH fact sheets or your clinician for interactions and safe dose ranges. (<u>NSF</u>)