



A FREE GUIDE

Supplements, Therapies & Your Skin

What actually helps, what's hype, and how to spend

Jennifer Herrmann, MD, FAAD, FACMS

DOUBLE BOARD-CERTIFIED · FELLOWSHIP-TRAINED

Start here: nothing replaces the foundation

Before a single supplement, understand this: the most powerful things for your skin are essentially free, and no pill outperforms them. Supplements and therapies are the last ten percent. They only earn their place on top of a solid base, so this is the base I build with every patient before we talk about spending a dollar on anything else.

THE FOUNDATION (NON-NEGOTIABLE)

- **Sleep.** Your skin does its repair and collagen-building overnight. Short or broken sleep raises inflammation and weakens the barrier. Aim for seven to eight hours on a steady schedule.
- **Stress and cortisol.** Chronic stress keeps cortisol high, and high cortisol quietly degrades collagen and disrupts the barrier. Managing it is skincare, not a luxury.
- **Nutrition.** Colorful, anti-inflammatory plants; enough protein, because collagen is protein; and a lower glycation load (less refined sugar, gentler cooking) to keep collagen springy.
- **Movement.** Exercise releases muscle signals that keep skin thicker and better supplied with blood, while lowering inflammation and improving your sleep.
- **Sun protection.** UV is the single biggest external ager. Daily mineral SPF protects every other thing on this list.
- **Hormones.** In your forties and beyond, estrogen and progesterone shape collagen, hydration, and barrier strength. Worth a real conversation with your physician.

Get these in place and your skin genuinely changes. Then, and only then, do supplements and therapies start to pay off.

Supplements with the most skin evidence

A short list actually has decent evidence for skin. Even here, whole foods usually beat capsules, so think fill the gaps, not replace the plate.

- **Omega-3 fatty acids.** The strongest of the group. Omega-3s calm inflammation, support the barrier, and help defend skin against sun-driven aging. Food first (salmon, sardines, walnuts, flax); a quality fish or algae oil is a fair backup if you rarely eat them.
- **Vitamin D, with K2.** Many women run low, and vitamin D supports skin immune function and repair. Pair it with K2 so calcium is directed to bone, not arteries. Test your level and dose to it rather than guessing.
- **Targeted antioxidants.** Vitamin C supports collagen synthesis, and polyphenols like those in green tea show real but modest benefit. The catch: a colorful, plant-rich plate delivers these better, and more safely, than most pills.
- **Collagen peptides.** Be skeptical here. Pooled trials look encouraging, but a 2025 meta-analysis that separated studies by funding found the benefits came almost entirely from industry-funded and lower-quality trials; the independent, higher-quality studies showed no effect on hydration, elasticity, or wrinkles. It's safe and won't hurt you, but the evidence doesn't support it for skin. The lever that does: enough total protein from food.
- **Probiotics.** For inflammatory skin conditions like acne, rosacea, and eczema, targeted probiotics can help calm things through the gut-skin axis. But they're a support, not a cure: the bigger win is addressing the root cause, an imbalanced gut microbiome, with fiber, fermented foods, and fewer disruptors.

THE HONEST CAVEAT

More is not better. Antioxidant mega-doses can backfire, and stacking ten supplements rarely beats nailing the basics. Use supplements to cover genuine gaps (low omega-3 intake, low vitamin D), and let food carry the rest of the load.

Frontier: exciting, early, sometimes oversold

FIRST, THE ZOMBIE-CELL PROBLEM

As skin ages, some cells stop working but refuse to die. These senescent cells (scientists really do call them zombie cells) leak a steady stream of inflammation that breaks down collagen in their healthy neighbors. Most frontier supplements aim at this process, which is exactly why they're exciting, and why the marketing keeps running ahead of the proof.

- **Senolytics (fisetin, quercetin).** Compounds that may push zombie cells to finally die off. Real promise in animal studies, but no large human trials for skin yet. Reasonable to explore with your physician; don't overpay, and don't expect a transformation.
- **NAD and its precursors (nicotinamide, NMN, NR).** NAD fuels cellular repair and falls with age, and the clearest skin evidence is for prevention: in people at high risk for skin cancer, nicotinamide (a form of vitamin B3) lowers new pre-cancers and non-melanoma skin cancers. But more isn't automatically better. In healthy, low-risk people, aggressively overfilling the NAD bucket can leave unstable, reactive byproducts behind, and the long-term safety of heavy loading (think monthly NAD IVs) isn't established. This is a conversation to have with your provider, who can weigh your individual skin-cancer risk against the downsides, rather than jumping on a monthly drip because the marketing is loud.
- **Mitochondrial supporters (CoQ10, PQQ).** Your mitochondria are the cell's power plants, and they take damage from age and sun. Mitochondria-targeted antioxidants reach them where generic ones don't, for modest but plausible support.
- **Urolithin A.** A newer, gut-derived compound (your microbiome makes it from pomegranate and walnuts) that triggers mitophagy, the cell's clean-up of worn-out mitochondria. The human data so far is mostly in muscle, with a plausible but still-unproven read-across to skin.

If you experiment here, choose one or two, buy only from brands that disclose their doses, and give it months. Skip anything that promises to reverse aging or hides its formula.

Frontier: exciting, early, sometimes oversold

- **mTOR inhibitors (topical rapamycin).** mTOR is the cell's accelerator pedal, and gently easing off it, rather than keeping it floored, is tied to slower aging across species, from yeast to mice. What's new is that it has reached human skin: a small randomized trial applied a topical mTOR-quieting compound to older adults and saw a drop in p16 (a reliable marker of cellular aging), a rise in anchoring collagen VII, and visibly improved skin. The honest caveat is that it was small, with many dropouts, so it needs replication, but the early human data is real and worth following as larger trials arrive.
- **Exosomes.** Exosomes are tiny vesicles cells use to talk to one another, packets of signals that could, in theory, tell skin to repair, calm inflammation, and build collagen. The promise is real. But three hard problems sit between that promise and the jar on the shelf.
 - **Consistency.** An exosome's message depends entirely on the cell it came from, its type, health, age, and growing conditions. A reproducible product needs identical cell sources under tightly standardized conditions, batch after batch; let anything drift and the active ingredient quietly changes from one bottle to the next.
 - **Purification.** Exosomes are vanishingly small, and isolating true ones from debris and other vesicles takes specialized, expensive, low-yield techniques (ultracentrifugation, ultrafiltration, density-gradient separation). The effective dose for an area as large as the face is still poorly defined.
 - **Stability.** They are fragile lipid vesicles, inherently unstable outside a living system and usually needing frozen storage. A shelf-stable cream claiming active exosomes at room temperature is a biologically hard claim; freeze-dried powders reconstituted right before use are the more plausible format.

The picture is the same for both: a compelling rationale, promising early signals, and a shortage of robust, long-term human trials. That isn't a reason to sneer, it's a reason to wait for evidence rather than pay a premium for a promise.

Therapies that support (never replace)

These can genuinely help your skin, but as amplifiers of the foundation, not substitutes for it. Used on top of the basics, they earn their place.

- **Red light (photobiomodulation).** The best-supported at-home device. Red and near-infrared light nudge mitochondria to make more energy, which can support collagen and calm inflammation. Consistency beats wattage hype, and results build gradually over weeks.
- **Lymphatic massage.** It won't remodel collagen, but it genuinely reduces puffiness and supports circulation and drainage, so skin looks less congested and more sculpted. A real, if temporary, glow, and a lovely stress-lowering ritual.
- **Vagus-nerve and stress modulation.** The indirect but powerful one. Practices that tone the vagus nerve (slow breathing, humming, brief cold exposure, good sleep) shift you out of fight-or-flight and lower cortisol, and lower cortisol means less collagen breakdown and a calmer barrier. You are treating the skin by treating the stress axis.

The bottom line

Foundation first, always. Then a few evidence-backed supplements to fill real gaps, an honest dabble in the frontier if it interests you, and therapies to amplify rather than replace. Most of what you're sold is the expensive part; the results come from the basics, done consistently.

WANT THE WHOLE MAP?

The Inside-Out Method

This guide is one piece of a much bigger picture. The Inside-Out Method is my complete course on building skin that stays resilient for decades — not skin that imitates 25. It's everything I teach my patients, in the order that actually works:

- 1 Sleep, stress & circadian skin**
- 2 The gut-skin axis**
- 3 Nutrition for collagen** — *just a glimpse of this section*
- 4 Movement & muscle**
- 5 Hormones**
- 6 GLP-1 medications & skin**
- 7 The frontier**
- 8 Topicals & procedures**

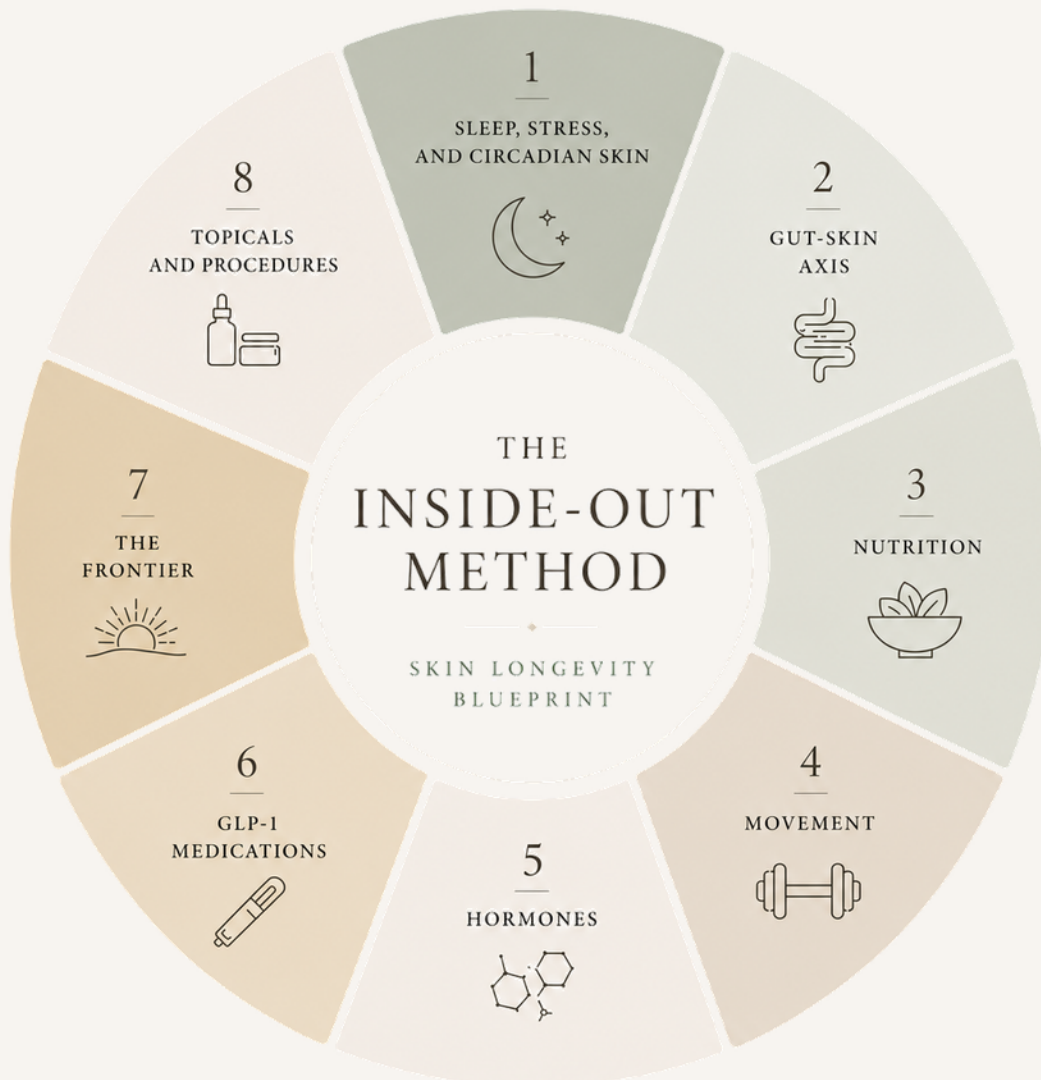
What you just read is a fraction of a single section. Each module breaks into short, digestible lessons you can do on your own schedule, with a workbook to make it stick and weekly live Q&A with me, over 8 to 10 weeks in a small cohort. It's the whole system, in the order that actually works.

Ready when you are

Join the next cohort → insideoutmethod.co

Dr. Jennifer Herrmann — double board-certified dermatologist with functional medicine training.

Educational content only. This guide doesn't replace personal medical advice. Talk to your own physician about any medication or treatment.



JENNIFER HERRMANN, MD, FAAD, FACMS
DOUBLE BOARD-CERTIFIED • FELLOWSHIP-TRAINED