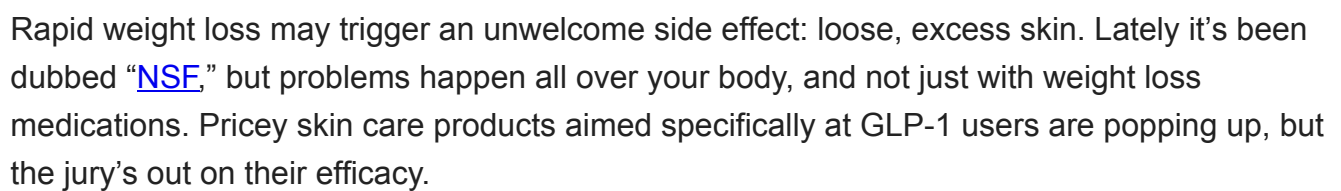


youembod.com/health-wellness/skincare/collagen-and-elastin-peptides-lipids



In over-the-counter serums, creams and lotions, four ingredients get a lot of attention: peptides, collagen, elastin and lipids. Some come in supplement form as well. Most labels promise firmer, smoother skin, but you may be disappointed, especially if you spend big bucks.

Here's what you should know.

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Peptides: Building Blocks of Protein

What they are: Your body produces peptides, or strings of amino acids that come together to make protein. Two proteins, collagen and elastin, support healthy skin. (More on them below.) Countless over-the-counter products boast that they contain peptides — and there's a growing under-the-counter market for unregulated injectable peptides, sold online or through med spas, longevity clinics and even the bodybuilding community.

What the science shows: Peptides have anti-aging properties, but much of the data on them is early-stage and short-term. In topical use, they struggle to permeate your skin — though researchers are discovering ways to enhance absorption. Right now, merely including peptides in the ingredient list for a skin care product doesn't mean it will deliver any benefit. Injectable peptides for skin care have virtually no reputable research, and they're not FDA-approved.

Risks: Creams and serums with peptides don't pose any major risks if you're buying from a reputable brand with a track record.

Injectables are another story. During an anti-aging conference last year, [two women were hospitalized](#) in critical condition after receiving peptide injections from a physician who wasn't properly licensed.

"It's a little bit scary actually, because there's no good human research," says Lindsey Bordone, MD, a former Columbia University associate professor of dermatology who is now in private practice.

Collagen: Skin's Support Structure

What it is: Collagen, a protein, provides structural support to the connective tissues in your body (think skin, bones, tendons and ligaments). It makes up more than 90% of your skin, and your body is constantly breaking it down and producing more. The production rate slows about 1% to 1.5% each year as you age, so many skin care products include ingredients that claim to rev it up. Collagen supplements, taken as capsules or as a powder stirred into liquids, have become increasingly popular in recent years — the market for these doubled between 2019 and 2022.

What the science shows: While many papers show impressive results from collagen supplements, look closer and things get muddled. A recent review of research found that when you consider only high-quality papers that weren't industry-funded, collagen supplements provided no benefit.

"I wouldn't say it's complete snake oil, but there's very mild evidence it could help just a tiny bit," Bordone says. "Using sunscreen and protecting your skin from UV damage does more long term than taking these collagen supplements, which are very expensive and have very, very limited data."

Risks: In research, no significant side effects have been reported with collagen supplements. However, the FDA doesn't regulate supplements, so manufacturers aren't required to prove their claims, or the accuracy of their labels. Shop carefully, and look for products with third-party testing, such as that done by [NSF](#).

Elastin: The Stretchy Protein

What it is: It's only one letter off from *elastic*, with good reason: This protein provides the elasticity that helps your lungs expand and contract as you breathe — and it also helps your skin stretch and bounce back.

What the science shows: Your body produces elastin naturally, but production slows as you get older. At the same time, existing elastic fibers break down. Sun exposure is especially damaging, and [GLP-1 medications](#) may weaken elastin, too.

When it comes to treatment, there's very little independent research that shows topical products, like the popular Alastin line, or oral supplements can stimulate elastin production. The research that does show improvement is industry-funded — which doesn't mean it can't be trusted, but does mean it may have been structured to ensure a favorable result.

Risks: “I would say that Alastin isn't harmful. Do I think it leads to an earth-shattering difference? No. It may lead to very mild improvement at a very steep price point,” Bordone says. She recommends something much simpler: “If there's anything that you would do for elastin, it's sunscreen, sunscreen, sunscreen.”

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Lipids: Skin's Natural Fats

What they are: Your skin has a barrier that keeps water in and bad stuff out. Lipids are the fats that help build the barrier. Three main types do most of the work: ceramides (the most abundant fat in your skin's outer layer), cholesterol and free fatty acids. When your skin doesn't have enough, it can get dry and irritated. Many topical products contain one or more types of lipids.

“Lipids on the skin can help it retain moisture and look more hydrated,” Bordone says. “That's why, when people put moisturizer on, their skin looks better and dewy and glowy. They're retaining more moisture.”

What the science shows: The use of ceramides, cholesterol and fatty acids in skin care products has been studied extensively. While you could spend hundreds of dollars on a single product, good ol' drugstore brands can work just fine.

“I just recommend regular creams that are meant for very dry skin. There are ones that have synthetic ceramides that are made to replace what your body's not making,” Bordone says. “Buy something from a large brand because those tend to be hypoallergenic. Some of the more natural brands may have allergens, like some botanicals or animal products that aren't purified.”

Risks: Generally, these topical products are considered safe and effective. Some products with ceramides are even recommended for use on infants.