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Peptides for What Ails You

By Ann Gerhardt MD October 2026

Bottom line at the top: I often disparage supplements marketed with grand claims, due to lack of science or even logic to back them and I feel the same way about synthetic injectable peptides. However, the OS-1 peptide in OneSkin cream, and peptides of hydrolyzed collagen, though lacking long-term safety data, seem to have sufficient data to give them at least a short-term try.

Injectable peptides: Increasing numbers of on-line sellers, including influencers, promote unapproved injectable peptides. These products currently face enforcement restrictions by the Food and Drug Administration under the Federal Food, Drug and Cosmetic Act, as they lack strict testing that proves purity, health benefit, and safety. The rules previously carried loopholes that permitted them for "research use only" and required that labels state "not for human consumption," though most products provided dosing calculators and injection instructions, clearly expecting their products to be used in humans.

Peptides are short chains of amino acids, which are the building blocks of proteins. Our bodies naturally make peptides to be hormonal-type messengers that tell organs what to do. Insulin is a peptide that is injected. GLP-1 and GIP are naturally occurring hormone peptides made by intestinal cells (See related article in this newsletter). The market for the FDA-approved synthetic GLP-1 receptor agonists like semaglutide and tirzepatide, which are administered by injection, exploded when they promoted weight loss more effectively than they managed diabetes.

The Food and Drug Administration had sternly warned companies selling injectable peptides to curb their promotion, however, lately our "Health" Secretary Robert F. Kennedy Junior, apparently loves these peptides. An advisory FDA panel under his purview voted to loosen restrictions on the online products by permitting specialized pharmacies to produce KPV, TB-500 and Body Protective Compound (BPC-157), which purportedly reduce inflammation (KPV), promote tissue repair (TB-500) and promote injury healing (BPC-157) in laboratory and animal testing. Influencers, like biohacker Gary Brecka, Joe Rogan, Jennifer Aniston, Gwyneth Paltrow, Khloe Kardashian and RFK, Jr, hype peptides as ways to improve sports injury and work-out recovery, as well as to boost athletic performance. Oh, and they also are supposed to prevent visible aging. One large trial of people using BPC-157 to recover from knee pain affirmed its efficacy to reduce pain. Injectables of BPC-157 peptide, which was originally isolated from stomach secretions, are synthesized in labs, so the FDA cannot approve them as GRAS (Generally Recognized As Safe) as they do for most herbs and established nutrients.

Potential downsides of using these products are injection-site infection, allergic reaction, and

reaction to potential compounding impurities. None of the online products have been evaluated for long-term safety.

A non-injectable peptide product for skin: A proprietary skin cream marketed by OneSkin to reduce skin aging, containing OS-1 peptide, purportedly improves skin health by eliminating dead skin cells and promoting healthy dermal cell growth and function. One controlled trial documented reduced skin water loss (improved hydration) and increased barrier function by the cream.

Collagen: Collagen, with a tough, fiber-like structure, collagen is the most abundant protein in the body (one-third of it) and is naturally made by our bodies to strengthen skin, bone, cartilage and tendons. Normal age-related collagen loss contributes to saggy skin and achy joints. Both oral supplements and collagen creams are available. Collagen molecules in creams do not penetrate deeply into skin but might temporarily reduce skin dryness and possibly stimulate natural collagen production.

2023 and 2021 cumulative reviews of pertinent scientific studies concluded that oral supplements are likely to be more beneficial than creams, though the studies were not head-to-head comparisons. They hypothesized that tissue integrity improved by adequate internal collagen might reduce inflammation throughout the body, thereby improving long-term health. For years, doctors, me included, argued that our normal digestive process breaks down ingested intact collagen to amino acids that the body *might (*but without a guarantee*),* be used to make more collagen. To overcome this problem, most oral supplements are hydrolyzed (partially chemically digested into peptides called hydrolysates). The small, bioactive peptides signal fibroblasts (the primary cell responsible for replacing damaged skin, joint and cartilage tissue) to make more collagen and other structural tissue. Perhaps the collagen pieces tell the body that collagen has been degraded and needs to be replaced. One review concluded that five grams of collagen hydrolysates by mouth per day for at least a month reduced joint pain as well as improved joint function and exercise tolerance. Another included study using about 2.5 to ten grams per day, concluding that it improves skin hydration and elasticity.