

Collagen Peptides



• From Grass-Fed, Hormone-Free, and BSE-Free Bovine

Collagen is a ubiquitous peptide in the human body and the most dominant protein in the extracellular matrix (ECM).^[1] This is as opposed to other noncollagen proteins in the ECM, such as proteoglycans (hyaluronan, chondroitin sulfate, etc). Collagen is an important structural component of skin; connective tissues such as cartilage, ligaments, and tendons; as well as bone matrix. Collagen is produced by certain cell types, such as osteoblasts that form bone, chondrocytes that form cartilage, and fibroblasts that form connective tissues. Supplemental collagen peptides contain the building blocks for repair of these tissues within the body. Indications for use of collagen include building muscle or lean body mass; preventing age-related sarcopenia; improving the quality of skin, hair, and nails; and repairing joint damage from wear-and-tear.

Not all collagen peptides are the same. Research has identified 28 different collagen types, and each type is comprised of homotrimers and heterotrimers that are formed by three polypeptide chains known as α -chains, of which 40 types exist.^[1] The structural hallmark of all collagens is their triple helix.^[1] Different types of collagen contain differing protein and amino-acid composition. Vitazan Professional's collagen contains bioactive collagen peptides known as Verisol[®], which has been clinically proven to benefit the health of hair, skin, and nails.

The Verisol[®] collagen peptides are recognized by fibroblasts in the dermal layer of the skin as metabolic end-products of collagen degradation. These in turn can stimulate the body's production of collagen to counterbalance the end-products.



Table 1. Clinical Studies of Bioactive Collagen Peptide

Indication	Design	Outcomes	Notes
Skin elasticity	Double-blind placebo-controlled trial. Women 35–55 years of age ($n = 69$). 2.5 g collagen hydrolysate, 5.0 g collagen hydrolysate, or placebo daily for 8 weeks.	Skin elasticity improves significantly in both groups compared to placebo, by as much as 15% by week 4. The effects continued for 4 weeks after discontinuation.	[1]
Eye wrinkles	Double-blind, placebo-controlled trial. Women 45–65 years of age ($n = 114$). 2.5 g bioactive collagen peptides (BCP) or placebo daily for 8 weeks.	There was a reduction in eye wrinkles by weeks 4 and 8 (20%) after intake of BCP compared to placebo, that was statistically significant ($p < 0.05$), and continued to last 4 weeks after treatment ($p < 0.05$). There was a statistically significantly higher content of procollagen type I (65%) and elastin (18%) in BCP-treated volunteers compared to the placebo group.	[2]
Cellulite morphology	Double-blind, placebo-controlled study. Women 24–50 years of age ($n = 105$). 2.5 g bioactive collagen peptides (BCP) or placebo daily for 6 months.	To investigate moderate cellulite in normal versus overweight women. A statistically significant difference was found in the BCP group compared to placebo for degree of cellulite,* dermal density, and skin waviness on the thighs in normal-weight women ($p < 0.05$). Results were also seen in overweight women, but to a lesser degree than in normal-weight women. *Cellulite may be caused by dermal-matrix disturbances, excess subcutaneous fat, or increased interstitial fluid. Bioactive collagen peptides may help to improve the dermal matrix and restore subcutaneous tissue.	[3]
Nail growth and brittle nails	Open label, single-centre trial ($n = 25$). 2.5 g bioactive collagen peptides (BCP) daily for 24 weeks followed by 4-week off-therapy period.	BCP produced a 12% increase in nail growth and a decrease of 42% in the frequency of broken nails after 6 months. Globally, 64% of participants experienced a decrease in brittle nails and 88% experienced improvements 4 weeks posttreatment. 80% of participants testified that BCP improved overall appearance of nails.	[4]

References

1. Proksch, E et al. "Oral supplementation of collagen specific peptides has beneficial effects on human skin physiology: A double-blind placebo-controlled study." *Skin pharmacology and physiology*, Vol. 27, No. 1 (2014):47-55.
2. Proksch, E et al. "Oral intake of specific bioactive collagen peptides reduces skin wrinkles and increases dermal matrix synthesis". *Skin pharmacology and physiology*, Vol. 27, No. 3 (2014): 113–119.
3. Schunck, M et al. "Dietary supplementation with specific collagen peptides has body mass index-dependent beneficial effect on cellulite morphology." *Journal of medicinal food*, Vol. 18, No. 12 (2015): 1340–1348.
4. Hexsel, D et al. "Oral supplementation with specific bioactive collagen peptides improves nail growth and reduces symptoms of brittle nails." *Journal of cosmetic dermatology*, Vol. 16, No. 4 (2017): 520–526.

Each vegetable capsule contains:

Hydrolyzed collagen (bovine*) (Verisol[®]) bioactive peptides 500 mg
*Hormone-free. Grass-fed.

Also contains: Vegetable magnesium stearate and silicon dioxide in a non-GMO vegetable capsule composed of vegetable carbohydrate gum and purified water.

Directions of use: Adults: Take 1 capsule five times daily or as directed by your health-care practitioner. *For joint pain:* Use for a minimum of 5 months to see beneficial effects.

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