Collagen peptides

In my Monster Mash, collagen peptides are the targeted connective-tissue substrate input. Collagen is the dominant structural protein in fascia, tendons, ligaments, intervertebral disc annulus fibrosus, dermis, and most load-bearing extracellular matrices. Hydrolyzed collagen provides a high-density input of glycine, proline, and hydroxyproline, amino acids disproportionately represented in collagen compared with most dietary proteins. In this program, collagen is paired with vitamin C and daily mechanical loading, because connective tissue remodeling is substrate-dependent and load-dependent.

Great Lakes Wellness Collagen Peptides Powder (Unflavored, 20 oz)

Hydrolyzed collagen peptides (primarily types I and III). Functional axes: collagen-specific amino-acid substrate; hydroxyproline delivery; and practical solubility for daily compliance.

- High glycine and proline density; hydroxyproline-rich profile (collagen signature amino acid)
- Pairs with vitamin C in this series (vitamin C is required for collagen hydroxylation chemistry)
- Best leveraged as substrate plus loading: dose regularly and place near movement when feasible
- Operational benefit: neutral taste; mixes into warm or cold matrices without dairy

View on Amazon

Amazon link **Open FoodForBackPain.com** **See all 15 ingredients**

Why collagen peptides are in this program

Fascia and tendon are not built from generic protein alone; they are built from collagen-rich extracellular matrix, which is amino-acid specific and strongly regulated by mechanical loading. Hemp seed establishes baseline protein and essential fatty acids; beetroot supports perfusion signaling; spirulina increases micronutrient density; calcium ascorbate supplies vitamin C chemistry that is directly required for collagen hydroxylation; honey and chia support compliance and bowel-handling stability. Collagen peptides then provide the most direct dietary substrate for collagen-rich tissues.

Reported outcomes in this program (Stephen)

Collagen peptides were used as part of a combined protocol rather than as a stand-alone intervention. In my own use, consistency mattered more than short bursts. When collagen intake was steady and paired with vitamin C plus daily movement, I perceived improvements in tissue tolerance and structural stability. These are personal observations inside a multi-ingredient nutrition and movement framework; they are not controlled outcomes attributable to collagen alone.

1. Collagen biology: why hydroxyproline matters

Collagen fibrils derive tensile behavior from a triple-helix structure and enzymatic cross-linking. Hydroxyproline is a post-translationally modified amino acid abundant in collagen and widely used as a collagen turnover marker in research. Hydrolyzed collagen delivers hydroxyproline-containing peptides and increases circulating collagen-related amino acids after ingestion, which is a prerequisite for any tissue-directed substrate effect.

2. Vitamin C dependence: hydroxylation and fibril maturation

Vitamin C is required for prolyl and lysyl hydroxylation during collagen biosynthesis. Without adequate vitamin C, collagen fibrils are mechanically weaker due to impaired hydroxylation and downstream cross-link formation. This is the biochemical logic behind pairing collagen peptides with calcium ascorbate in the Monster Mash.

3. Substrate plus loading: feeding the tissue when remodeling is active

Connective tissue remodeling is load-regulated. The most actionable human timing data comes from a randomized crossover study in which vitamin C–enriched gelatin was consumed before brief intermittent exercise; the protocol increased a serum marker of collagen synthesis and improved engineered ligament mechanics in vitro when conditioned with post-supplement serum. In practical terms, the signal is not just 'take collagen'; it is 'take substrate and then load the tissue'.

4. Human outcome evidence: tendon and joint endpoints

Recent randomized trials and meta-analyses suggest collagen peptides can influence musculotendinous adaptation and certain joint pain/function endpoints, with effect sizes dependent on product type, dose, population, and whether training/loading is present. A resistance-training RCT reported that daily specific collagen peptides increased patellar tendon hypertrophy compared with placebo. In osteoarthritis, a trial sequential meta-analysis pooling RCTs reported small-to-moderate improvements in pain and function.

5. Practical dosing inside the Monster Mash

Most collagen peptide trials use daily doses in the approximate range of 5 to 20 grams. This product lists 20 grams per serving on the label, aligning with common research dosing ranges. In practice, dose selection is constrained by digestion, total daily protein, and adherence. In this program, adherence is treated as the primary variable, then dosing is tuned.

Evidence snapshot

Strongly supported: collagen peptides deliver a collagen-specific amino-acid profile; collagen biosynthesis requires vitamin C for hydroxylation chemistry; and collagen-related amino acids/peptides rise in circulation after ingestion.

Supported with heterogeneity: human trial and meta-analysis evidence suggests benefits for selected tendon adaptation and osteoarthritis pain/function outcomes, varying by context and intervention design.

Not established: collagen peptides as a stand-alone cure for chronic back pain. In this system, collagen is a substrate input embedded within a broader nutrition plus mechanical-loading framework.

References

Amazon product page (shortlink resolves to Great Lakes Wellness Collagen Peptides). https://amzn.to/45G0Ut2

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