



# Premier Marine COLLAGEN

The Premier Choice  
for Supplementation



## A LIFESTYLE ESSENTIAL

- ✓ Gluten-Free
- ✓ Purity Verified
- ✓ Paleo & Keto Friendly
- ✓ No additives or preservatives



# PREMIER MARINE COLLAGEN

A LIFESTYLE ESSENTIAL

## Mobility Maintenance:

- ✔ Supports healthy joint function which may preserve mobility, and comfort of aging joints.\*
- ✔ Maintains healthy skin, and connective tissues, including bones, tendons, and ligaments, and mediates and maintains collagen formation in bones.

## Supports Supple Skin

- ✔ Improves the structure and flexibility of the skin's dermis by supporting collagen synthesis and collagen density.\*
- ✔ Reduces the appearance of wrinkles by enhancing hydration and elasticity of the skin\*

## Promotes Protein Production:

- ✔ An easy to absorb, highly digestible protein enrichment supplement providing 19 out of 20 amino acids which help maintain lean muscle mass and support workout recovery.\*
- ✔ Supports the integrity of the Intestinal Epithelial Barrier Function (IEBF) by modulating tight junction proteins reducing gut permeability.\*

• THESE STATEMENTS HAVE NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE OR PREVENT ANY DISEASE.

MEET

# PREMIER MARINE COLLAGEN

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Hydrolyzed with food grade enzymes, PRL's Premier Marine Collagen is tasteless, fully dissolvable, and bioavailable. Supplementing with hydrolyzed marine collagen, coupled with dietary sources of antioxidants (vitamin C) and micronutrients (zinc, copper) delivers bioactive, short-chain nutritional collagen peptides, which support collagen synthesis, in the tissues that need it the most.



# Type 1 Collagen - Essential to Tissue Preservation



Healthy skin is the body's primary barrier to prevent dehydration and potential infection while maintaining moisture and body temperature. **Skin elasticity and firmness are dependent on collagen peptides.** There is constant pressure from internal and external factors that drive the skin-ageing process. These include an unbalanced diet, stress-induced nutrient deficiencies, and cumulative exposure to environmental pollution and damaging UV rays. Visible signs of collagen loss are evident in early adulthood, with the appearance of fine lines, wrinkles, as well as slight joint discomfort.

Of the 28 types of collagen that have been identified, **collagen type I is the most ubiquitous, and utilitarian, comprising 90% of total collagen used to provide structure to the skin, bones, tendons, and ligaments.** Collagen type I is also the main component in calcified teeth and bone, and is present in vasculature, lungs, and heart. In conjunction with hyaluronic acid, reticulin, and elastin, collagen forms a support network for fibroblasts, keratinocytes, melanocytes, and specialized cells of the skin immune system.

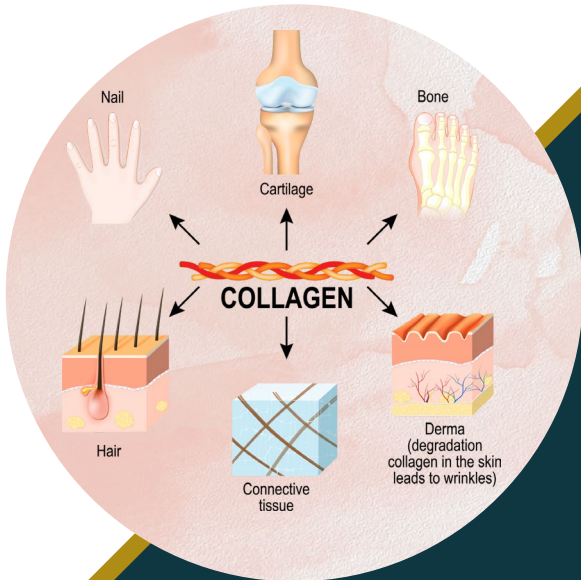
**Collagen hydrolysate (CH) is recognized as GRAS** by the FDA Center for Food Safety & Nutrition and has

history of use in the US, Europe, China, and Japan. Because it has been hydrolyzed, collagen peptides can reach the target site where collagen synthesis occurs. Natural collagen sources, such as bone broths, and chicken feet, are not as potent compared to hydrolyzed collagen (HC) powder.

A systematic review of 19 studies with a total of 1,125 participants aged 20 to 70 years (95% women) showed that daily collagen supplementation for 90 days is effective in supporting healthy skin, as it reduces appearance of wrinkles and improves skin elasticity and hydration. In these studies, supplementation doses ranged from 2.5g to 15g over periods of three to 18 months. After ingestion, collagen peptides remain in the dermis for up to 14 days, ensuring skin protection from sunlight, improvement in moisture retention while repairing endogenous elastin and collagen fibers.

**Premier Marine Collagen can supply the substrate needed for fibroblasts to rebuild collagen in the dermis of the skin, strengthen the skin barrier, reduce the appearance of wrinkles, and hydrate dry skin.\*** Aside from slowing the inevitable effects of skin ageing, hydrolyzed collagen supplementation is associated with additional beneficial effects.

# Beauty is More Than Skin Deep




Prevalent in almost all connective tissues, **collagen type I provides rigidity, elasticity, and strength to skin, tendons, ligaments, bones, teeth, and cartilage.** Technically considered a fibrous glycoprotein, collagen (derived from the Greek words "kola" meaning gum, and "gen" meaning producing) resides in the extracellular matrix (ECM), a noncellular component within all tissues and organs that acts as a structural scaffold that can direct

cell adhesion and migration as well as **regulate cellular growth and metabolism.** Collagen synthesis originates in fibroblasts, connective tissue cells in the dermis, which are embedded within the ECM of various tissues.

Evidence suggests that **hydrolyzed collagen peptides can support healthy joint function** which may reduce discomfort, enhance mobility, and help to maintain lean muscle mass.\* Collagen fibrils form the primary tension-resisting element in the ECM. Physical stimulation, including weight-bearing exercise, activates fibroblasts, increasing collagen production. In a systematic review of clinical trial outcomes for the use of collagen for joint discomfort due to injuries, muscle soreness, and exercise recovery, **doses of 5-10g collagen peptides daily** for over 3-6 months produced moderate benefits in the "pain during activity" parameter.

It is important to recognize that Collagen production can become impaired due to a variety of heritable, collagen disorders. These include genetic disorders such as Ehlers-Dalnos syndrome, Osteogenesis Imperfecta, Stickler syndrome, Epidermolysis Bullosa, Alport syndrome, and Marfan syndrome. Auto-immune conditions including systemic lupus erythematosus, systemic sclerosis, oral submucosa fibrosis, are associated with defective collagen production and turnover. Scurvy is also associated with reduced collagen synthesis. **Premier Marine Collagen** may be an appropriate way to supplement protein intake when increased protein demand is present.



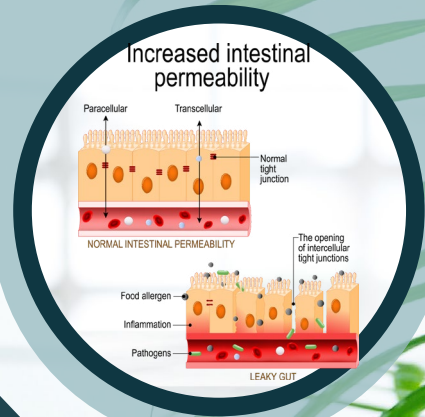
# Stop the Gap in Protein Synthesis

Like the skin, the intestinal epithelial barrier function (IEBF) supports the transport of water and nutrients while forming a protective barrier restricting harmful molecules from **permeating the intestinal barrier known to cause localized and systemic inflammation.**

Tight junctions are protein-derived cells that act as gatekeepers of the gut, preventing the escape of harmful microbes or undigested macromolecule proteins into systemic circulation. **Proline, a predominant amino acid in collagen peptides,** has been reported to upregulate tight junction proteins in intestinal epithelial cells. **Hydrolyzed marine collagen peptides have a low molecular weight as well as abundant amounts of proline** and other necessary amino acids to support the integrity of the IEBF by modulating tight junction proteins, reducing gut permeability.\*

Protein requirements vary depending on life stage, genetic predisposition, health condition, and exercise intensity. **Premier Marine Collagen has an excellent amino acid profile, delivering 19 out of 20 amino acids** making it a comprehensive supplement for protein enrichment with minimal calorie content. Recent studies suggest protein intake higher than the RDA may promote healthy ageing, weight management, and adaptation to exercise. A systematic review of clinical trials evaluating the effects of collagen supplementation on body mass composition, found a decrease in body fat percentage and an increase in fat free mass as well as hand-grip strength when supplementing with **15g of collagen peptides daily** for several months. Functional collagen peptide supplementation does not pose a problem of overconsumption and could enhance whole body collagen turnover more effectively than the current mix of commonly consumed proteins in the Western diets.

Research indicates that bioactive collagen peptides upregulate the synthesis of extracellular matrix (ECM) proteins in various tissues via a stimulatory cell effect while providing the specific amino acid building blocks for body collagen. Because of a repeating peptide sequence involving glycine, proline and hydroxyproline, it has been proposed that **collagen-derived protein sources may have the capacity to stimulate and/or support connective tissue protein synthesis rates and promote connective tissue remodeling.** Recent evidence has proven that collagen and connective tissue protein networks are in a constant state of remodeling. Collagen remodeling is regulated by collagen protein synthesis, collagen protein breakdown, and cross-linking activity.



# Premier Marine Collagen



**Wild-Caught Maintenance Amino Acids Bioavailability**

While most commercial collagen peptide supplements are derived from bovine and porcine sources, marine collagen has a lower molecular weight making absorption and assimilation more rapid as peptides pass intact into the bloodstream and are quickly distributed in tissues where collagen production occurs. Hydrolyzed fish collagen is safe and well-tolerated in healthy populations based on electrolyte level as well as blood, liver, and kidney biomarkers. Hydrolyzed with food grade enzymes, PRL's Premier Marine Collagen is tasteless, fully dissolvable, and bioavailable. Supplementing with hydrolyzed marine collagen, coupled with dietary sources of antioxidants (vitamin C) and micronutrients (zinc, copper) delivers bioactive, short-chain nutritional collagen peptides, which support collagen synthesis, in the tissues that need it the most.

Supplementing with Premier Marine Collagen would provide the inherent benefits associated with hydrolyzed collagen peptides while increasing total daily protein intake and improving dietary amino acid balance. This can be especially useful for those individuals who have inadequate daily protein intake (due to life stage, exercise intensity, or health condition) or have difficulty digesting animal or legume-derived dietary proteins. It is also paleo and keto friendly.

Premier Marine Collagen is sustainably sourced from Canada utilizing the skin of wild-caught, deep-sea ocean fish including cod, haddock, and pollock. Thoroughly tested for contaminants including the presence of heavy metals, industrial solvents, and microbial pathogens, our hydrolyzed marine collagen meets high quality standards of The United States Pharmacopoeia (USP), European Pharmacopoeia (EP) and Japanese Pharmacopoeia (JP). Premier Marine Collagen offers a pure, unadulterated, heavy-metal tested, antibiotic- and hormone-free alternative to bovine, porcine, and poultry-based collagen products.

## References:

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# POWERFUL BENEFITS IN 2 SCOOPS!

## MADE IN OUR WORLD CLASS MANUFACTURING FACILITY FOR SUPERIOR QUALITY ASSURANCE:

- ✓ **cGMP** (we meet and often exceed FDA requirements) with our exceptional, well trained manufacturing staff
- ✓ **Advanced** lab testing at our state-of-the-art laboratory with highly trained scientists
- ✓ **Delivering** exceptional quality products since 1987

## PREMIER INGREDIENT QUALITY

Our ingredients are purchased **solely for quality in terms of purity, potency and premier resonance capacity**. They are sourced only from the finest qualified suppliers all over the world, including Europe, South America, India, China and many other countries. Because of our rigorous quality testing standards, we must reject the vast majority of materials.

Our sourcing team has traveled to many countries, ever in pursuit of the elusive **pristine quality of nutritional ingredients**. For example, they have traveled to the central forests of India to find the best source of noni, to Italy to personally examine aloe plants and to South Africa to study tribal plants.

## ADVANCED INGREDIENT TESTING



PRL conducts scientific laboratory testing of raw materials and finished products, as well as state-of-the-art, proprietary bioenergetic testing of all ingredients. PRL has pioneered the use of bioenergetic testing to **ensure the customer is consistently getting the best quality** worldwide. In addition, we use the most advanced lab equipment and test methods, such as HPLC (High Performance Liquid Chromatography), to assure the potency and reliability of every ingredient.



**POTENCY VERIFIED**



**PURITY VERIFIED**



**NO UNDESIRABLE EXCIPIENTS**



**NO UNNECESSARY PRESERVATIVES**



**NO ADDED STEARATES**



**HEAVY METAL TESTED**