



INNOVATIVE  
FUNCTIONAL SOLUTIONS

# PRONEX™ BOVINE COLLAGEN

An Excellent Protein, with Anti-aging Properties



## COLLAGEN:

A vital component for structural health

- Collagen, the most abundant protein in the body, is the main structural component of ligaments, tendons, cartilage, vasculature, and also muscles, skin, eyeball fluid;
- Made up of tri-helices of the amino acids glycine, proline and hydroxyproline, its structure is strong and resilient;
- Exists in many types, major types are types I, II and III, making up 80% to 90% bodily types;

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Type I collagen is most resilient, making structures of tendons, ligaments, organs and skin;

Type II collagen is important for preventing age-related joint pain and arthritic conditions;

Type III collagen is important for the reticulate fibers of organs, skin, muscle, and vasculature;

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- Diets are not high in collagen, as they come from animal sources not readily consumed, i.e. bone marrow, hide, ligaments and cartilage, so supplementation is essential to health.

## COLLAGEN SUPPLEMENTATION IS IMPORTANT TO HUMAN HEALTH

**ProNex™ Bovine Collagen is a superior quality, consistent type of collagen, providing both type I and III that are rich sources of proline, hydroxyproline, glycine, alanine, and arginine, important amino acids to the body's structural health.**

## BENEFITS TO AGING BONES AND JOINTS

- Collagen makes up 75-95% of cartilage, so supplementing the body with ProNex™ provides the body with a clean tasting, easy to use bovine source that helps it improve bone metabolism and reduce joint deterioration and pain;
- Collagen peptides stimulate osteoblasts, increasing bone formation, bone mineral density, reducing fracture risk;
- Collagen peptides also stimulate chondrocytes, producing an extracellular matrix to promote mobility, flexibility and pain relief in aging joints and those with forms of arthritis;
- Collagen has also shown to be effective as a long-term treatment for osteoporosis.

## BENEFITS TO AGING SKIN, HAIR AND NAILS

- Type I and III collagens from ProNex™ Bovine Collagen provides key amino acids responsible for healthy skin, hair and nails;
- Collagen intake promotes skin hydration, elasticity and density, and decreases skin collagen fragmentation, surface roughness, appearance of cellulite and stretch marks.

## BENEFITS TO GASTROINTESTINAL (GI) HEALTH

- The most abundant amino acid in collagen, glycine improves digestion by increasing stomach acid;
- Glycine, as a precursor to glutathione, a strong cellular antioxidant, also aids the body in detoxification;
- By stimulating intestinal smooth muscle growth, collagen helps reduce gut permeability (leaky gut), decreasing markers of inflammatory bowel disorders (IBS, IBD).



#### **BENEFITS IN ATHLETIC PERFORMANCE AND WEIGHT LOSS**

- Bovine collagen, is an excellent protein source, and satietogenic, suppressing hunger, promoting weight control;
- ProNex™ Bovine Collagen is excellent for sports nutrition, containing high levels of glycine and arginine, key amino acids in creatine synthesis, that are important for muscular contraction and development, and production of nitric oxide, a potent vasodilator;
- Glycine in collagen promotes energy expenditure by promoting muscle development to also help control weight;
- By promoting connective tissue production, ProNex™ Bovine Collagen can help protect the joint matrix in high impact sports, and provides a safe alternative for postoperative wound healing.

#### **BENEFITS FOR CARDIOVASCULAR HEALTH**

- The amino acids proline and lysine in ProNex™ Bovine Collagen, along with vitamin C, strengthen artery walls and protects the endothelium layer, promoting vascular structure and elasticity;
- Proline, lysine from ProNex™ Bovine Collagen, and the vitamin C, also act as lipoprotein A binding inhibitors, preventing deposition of atherosclerotic plaque, shrinking arterial fat and its accumulation.

#### **BENEFITS FOR IMPROVED SLEEP**

- The most abundant amino acid in ProNex™ Bovine Collagen, glycine increases the release of extracellular serotonin (the sleep hormone) in the prefrontal cortex, promoting better sleep quality.

#### **PRONEX™ BOVINE COLLAGEN APPLICATIONS**

- Sports nutrition, beverages, nutritional bars;
- ProNex™ Collagen is a highly consistent, high quality Type I and III-containing bovine collagen product;
- The product does not foam and can be used as is or is easily flavored to meet the needs of the application.