

# Arthred<sup>®</sup>

## Collagen Formula

**Arthred<sup>®</sup>** is a patented, low molecular weight, pharmaceutical grade hydrolyzed collagen product. It is a free flowing predigested powder that is easily absorbed. Obtained from a bovine source, it is made through a proprietary process that breaks down the collagen into very small pieces: 3 kilodaltons (kDa) for Arthred<sup>®</sup> vs. 70 kDa for regular gelatin. Regular gelatin can cause severe gastrointestinal reactions, including diarrhea, precluding its usefulness for cartilage support.\* Arthred<sup>®</sup>, by contrast, is extremely digestible and is well tolerated.\*



#52890  
240 grams powder

### Key Features

- May nutritionally support healthy joint structure and function\*
- Supports the production and integrity of collagen, proteoglycans, and chondrocytes in connective tissue\*
- Provides nutritional support for healthy skin, hair and nails\*
- Supports good elasticity of connective tissue and relaxation of musculature\*



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Collagen is the component of cartilage that provides its basic configuration, flexibility and strength. Ligaments, tendons, bones, skeletal muscle, skin, the digestive tract and the vasculature are all held together by collagen. It is also a major component of hair, skin and nails. As we age, we lose the ability to make collagen. Additionally, nutritional inadequacy, exposure to toxins, and the stressful challenges of modern life can cause collagen to break down, resulting in skin wrinkles and sags, thinning of the hair, stiffness and decreased flexibility in the joints, and reduced vibrancy and strength of the skin and nails.

Arthred® hydrolyzed collagen is a unique protein, containing high amounts of certain amino acids, including glycine, proline, hydroxyproline and arginine. These amino acids have been linked to optimal body composition, healthy bone and connective tissue, healthy skin appearance, tissue anabolism, normal metabolism, and growth hormone secretion.\* Once hydrolyzed collagen is absorbed through the intestines, it increases the serum levels of these amino acids. They are then transported to joints where they act as raw materials for the metabolically active cartilage cells.

Arthred® supports endogenous production of collagen, by both providing nutrition for the synthesis of proteoglycans, and by improving the function of chondrocytes.\* Articular chondrocytes are the cells that secrete the extracellular matrix of cartilage, and are of prime importance in the maintenance of a normal cartilaginous matrix. Hydrolyzed collagen can support the elasticity of connective tissue, help relaxation of musculature, support normal range of motion, and overall support the general condition.\*

Studies have shown hydrolyzed collagen may have major benefits as a component of nutritional support for healthy connective tissue.\* It has been widely used in clinics and hospitals, including use as a key nutritional support for the elderly and hospitalized.\* Hydrolyzed collagen has been found to be effective alone or in combination with other modalities.\* One study found that its use with physical therapy was equal to its use alone, whereas physical therapy alone gave inferior results.\*

Arthred® is predigested for optimal absorption. It is highly soluble in both cold and warm liquids, with mild taste and good palatability, and is easy to mix and use. Arthred® is quality control tested and is assured to be within safe limits for contaminants, such as molds, yeast, bacteria and heavy metals. A 1973 literature review showed that hydrolyzed collagen does not contain antigens that can cause anaphylaxis. Hydrolyzed collagen is considered a food substance and has GRAS (Generally Recognized as Safe) status.

#### References:

Department of Health and Human Services, Food and Drug Administration: GRAS status of Peptones. FDA, Rules and Regulation, 21 CFR Part 184, 1984.  
Shultz, R.M. Proteins II: Physiological Proteins. Textbook of Biochemistry with Clinical Correlations, edited by Devlin, T.M., p.106-7, 1986.  
Charvapil, M., Madden, J.W., Carlson, E.C., Peacock, J.E.E. Exp. And Molec. Pathology, 20, 363-73, 1974.  
Morehead, R.P, Little, J.M. Amer. J. Path, 21(2): 333-338, 1945.

### Supplement Facts

Serving Size 2 Scoops (approx. 10.5 g)  
Servings Per Container 22

#### Amount Per Serving

Calories 40

% Daily Value\*

Protein 10 g 20%

Hydrolyzed Collagen 10.5 g †

\*Percent Daily Values are based on a 2,000 calorie diet.

† Daily Value not established.

**Suggested Use:** As a dietary supplement, mix 2 level scoops (2 tablespoons) of powder into 8 oz. of juice, water or sports drink one time daily, or as directed by a healthcare practitioner.

**Arthred® may be used in combination with Connection®, Item #52050.**

**The following is a typical amino acid profile for Arthred:**

Amino Acid	% by weight	per serving
Alanine	8.9	934 mg
Arginine	7.3	766 mg
Aspartic acid	6.0	630 mg
Glutamic acid	10.3	1081 mg
Glycine	21.0	2205 mg
Histidine	1.1	115 mg
Hydroxylysine	1.5	157 mg
Hydroxyproline	12.2	1281 mg
Isoleucine	1.5	157 mg
Leucine	2.7	283 mg
Lysine	3.5	367 mg
Methionine	0.9	94 mg
Phenylalanine	2.1	220 mg
Proline	12.8	1344 mg
Serine	3.1	325 mg
Threonine	1.9	199 mg
Tyrosine	1.0	105 mg
Valine	2.4	252 mg