

# BORN nutrition

Protects and Promotes Connective Tissue Biosynthesis  
Supports the Body's Processes of Cartilage, Tendon, Ligament and  
Fascia Self-Repair | Supports Joint Lubrication, Joint Cushioning, and  
Normal | Connective Tissue Inflammatory Response  
Supports Normal Rejuvenation of Healthy Hair, Skin and Nails



## Collagen

This product includes three clinically studied ingredients to support the natural healing process and maintain connective tissue structure. Most therapies simply block joint pain and connective tissue discomfort from exercise, and in doing so inhibit the regeneration and elongation of specific polysaccharide precursors and deplete nutrients such as vitamin C and magnesium that maintain joint and connective tissue health. FORTIGEL®, Tendoactive® and Mobilee® protect and preserve cartilage, tendons, ligaments, intervertebral discs, and fascia.<sup>1-3</sup>

### Overview

Collagen is a crucial element of skin and connective tissues. This protein is responsible for giving skin a youthful bounce, and as it declines, so does skin appearance and overall connective tissue health. Over time, lifestyle factors can cause reduced elasticity in cartilage, tendons, ligaments and skin. This leads to wrinkles, decreased dermal matrix strength, and soft tissue and joint discomfort.

### Collagen Hydrolysate†

FORTIGEL®, backed by more than fifteen studies, provides bioactive collagen peptides (BCPs), which contain high concentrations of specific peptides that comprise connective tissue. The precise length of the short-chain peptides and low average molecular weight allows easy absorption, transport, and accumulation to target connective tissue. FORTIGEL® provides 5 g hypoallergenic protein per serving from a sustainable protein source. The lower dose of collagen peptides decreases excess oxalate production, compared to higher-dose collagen and gelatin products.

Clinical studies demonstrate joint health benefits. One randomized, double-blind, placebo-controlled clinical trial performed in cooperation with Harvard Medical School and Tufts Medical Center demonstrated the efficacy of FORTIGEL®. Thirty participants were given collagen hydrolysate daily over the course of 48 weeks. Delayed gadolinium enhanced magnetic resonance imaging of cartilage (dGEMERIC) was used to assess hyaline cartilage and proteoglycan content in the participants' knee joints at baseline, 24 weeks and 48 weeks. The FORTIGEL® group was found to have significant improvements upon primary dGEMERIC imaging scores, suggesting a potential to stimulate an effective chondrocyte response to maintain the collagenous matrix.<sup>6</sup> In cell culture studies, FORTIGEL® has been found to induce the synthesis of aggrecan (an important component in cartilage) and type II collagen, which plays a key role in cartilage elasticity, and support tendon and ligament matrix molecules.<sup>7</sup> At Penn State University, 147 athletes were qualified to take FORTIGEL® for 24 weeks. The results of the study found FORTIGEL® to support normal joint mobility and joint health.<sup>5</sup> A 2021 clinical study of 180 young adults supplemented with 5 g of BCPs over 12 weeks and found a significant reduction in joint pain from exercise.<sup>8</sup> Finally, a clinical trial on 160 subjects established an effective dose of 5 g for joint health support.<sup>4</sup>

### Hyaluronic Acid Extract†

Mobilee® is a patented rooster comb extract rich in high molecular weight hyaluronic acid (HA), which is responsible for the viscoelastic, lubricating properties of synovial fluid. This extract also contains collagen and other glycosaminoglycans (GAGs). Hyaluronic acid also plays a role in the biophysical,

biochemical and cell regulation processes in joint synovial tissues. Scientific evidence shows Mobilee® supports chondrocytes and synovial cell function, and is two to four times more active than regular HA in supporting synovial fluid health.<sup>9,10</sup> The latest clinical research includes HA in proactive and maintenance approaches to joint care and supports normal range-of-motion. Research suggests Mobilee® supports the quality of synovial fluid by positively influencing synovial HA concentration, and by reducing the expression of degradative factors in synovial fluid.<sup>11-13</sup>

### Type I Collagen and Mucopolysaccharides

Tendoactive® is a combination of type I collagen and mucopolysaccharides. Adult tendons, ligaments and fascial tissue are comprised mainly of type I collagen molecules organized into structural units. The molecular structure and organization of tendon, ligament and fascial collagen fibrils are key determinants in the ability of these tissues to endure mechanical force and fuel self-repair. While collagen provides much of tendon/ligament structure and strength, mucopolysaccharides are the “glue” that holds them together and allows them to stretch, flex, bend and maintain their resilience. Mucopolysaccharides are a critical component of extracellular matrix and are important in maintaining structural integrity, lubrication and spacing of collagen fibers. Furthermore, mucopolysaccharides have been shown to increase collagen and non-collagenous protein synthesis in cultures of bovine tenocytes and ligament cell. Tendoactive® has been shown to be effective in studies done on the medial and lateral epicondyle tendons, Achilles tendon and plantar fascia.<sup>16-19</sup>

### Directions

1 scoop (7.6 grams) in 8 oz of water or the beverage of your choice per day or as recommended by your health care professional. Can also be added to food and baking products.

### Does Not Contain

Gluten, yeast, artificial colors and flavors.

### Cautions

If you are pregnant or nursing, consult your physician before taking this product.

## Supplement Facts<sup>v1</sup>

Serving Size 1 Scoop (7.6 Grams)  
Servings Per Container About 30

	Amount Per Serving	% Daily Value
Calories	25	
Total Carbohydrate	<1 g	<1%*
Dietary Fiber	<1 g	2%*
Protein	5 g	
Vitamin C (as Ascorbic Acid USP)	100 mg	111%
Magnesium (as TRAACS™ Magnesium Bisglycinate Chelate)	135 mg	32%
Sodium	50 mg	2%
Gelatin Hydrolysate (FORTIGEL®)	5.2 g	**
Connective Tissue Blend (Tendoactive®)	520 mg	
Mucopolysaccharides		**
Type I Collagen		**
Chicken Comb Extract (Mobilee®) (Standardized to contain 40 mg Hyaluronic Acid)	80 mg	**

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

\*\* Daily Value not established.

## References

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