Doctor's BEST® Science-Based Nutrition

Best Hyaluronic Acid w/Chondroitin Sulfate

Best Hyaluronic Acid with Chondroitin Sulfate

60 Capsules

Ingredients per two capsules:

BioCell Collagen II® .....1000 mg

Excipients: rice powder, gelatin (capsule), magnesium stearate (vegetable source).

Suggested Adult Use: Take two capsules daily, with or without food.

Ingredients

BioCell Collagen II®

Best Hyaluronic Acid with Chondroitin Sulfate contains patented BioCell Collagen II® (US patents 6,025,327; 6,323,319; & 6,780,841). BioCell Collagen II® is sourced from chicken sternal cartilage and provides highly bioavailable, low molecular weight glycosaminoglycans (GAGs). It is standardized to contain 20% Chondroitin Sulfate, 10% Hyaluronic Acid and 60% Collagen Type II.

BioCell Collagen II® is hydrolyzed and denatured to low molecular weight compounds that increase the bioavailability and absorption of its components. Undenatured products have a lower absorption rate due to their larger molecule size.

Hyaluronic Acid and Collagen are vital structural components of skin that decline as we age, and are responsible for the skin's moisture, suppleness and elasticity. BioCell Collagen II® contains key components that can help support healthy skin and joint function.*

Benefits

Supports Healthy Joint Structure and Function*

Components of BioCell Collagen IIÆ including collagen type II, chondroitin sulfate and hyaluronic acid (HA) can enhance proteoglycans in the joint matrix, thereby providing support for healthy joint function and maintaining joint shock absorption and cushioning.

Chondroitin Sulfate

Chondroitin has been well studied for its effects on joint health. In a 1996 controlled, double-blind trial published in the Journal of Rheumatology, 146 volunteers consumed chondroitin sulfate daily for 6 months. Changes in joint function were measured according to several clinical parameters and carefully analyzed. After the first month, significant improvements were noted and maintained for three months after the subjects stopped taking the chondroitin sulfate.1 In an earlier double-blind study subjects taking chondroitin sulfate had improvements in joint function after three months of use, as determined by both objective and subjective measurements.[2] In both studies, the benefits lasted for weeks after subjects stopped taking chondroitin sulfate.

In another controlled study, 192 subjects took chondroitin sulfate or a placebo daily for one year. At the end of the trial, chondroitin sulfate maintained healthy joint cartilage thickness, while those on placebo had decreased cartilage. Improvements in joint function also occurred. The researchers reported that chondroitin exerted a clear chondroprotective effect.[3]

Collagen Type II

A number of studies have also been conducted on the administration of collagen type II to individuals that have various joint issues. Much of this research has been conducted on animal models of joint conditions while there are also studies showing the effectiveness of oral collagen type II preparations in humans for maintenance of healthy joints.

A randomized controlled trial conducted on 60 patients with joint health issues in 1993 found that oral administration of chicken collagen type II for 3 months led to a significant decrease in swollen and tender joints in this group, as compared to no measurable improvement in the placebo group. There were also no side effects seen with the treatment.[4] A second multicenter, double-blind, placebo-controlled trial in 274 individuals with joint issues was published in 1998. The participants were given collagen type II orally for 24 weeks. Positive effects of the treatment were noted while no adverse effects were seen.[5]

A paper published in 2000 reviewed the literature to assess the role of hydrolyzed collagen in joint and bone health. It was found that hydrolyzed collagen when administered orally was able to support joint health in most of the trials reviewed while the author concluded that, "Its high level of safety makes it attractive as an agent for long-term use."[6]



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Hyaluronic Acid (HA)

Most of the literature on hyaluronic acid and joint health deals with its intra-articular use, or injections of HA directly into the joints. In this realm, there is good evidence for the effects of HA on joint function.

A study was conducted with injectable HA in individuals with TMJ (temporomandibular joint) conditions. Participants received two injections, each one week apart, or placebo injections with saline. In the HA group, the researchers found decreased clicking sounds and increased function of the joint at 1 month (90% of patients showed improvement) and 6 months (63%) of follow-up, compared to about 26% of the placebo group showing improvement at 6 months.[7]

A pair of researchers also conducted a literature review of the trials using HA for improving joint health that was published in 2005. Their findings indicate a positive role for HA in modifying the structure of the joint and slowing progressive deterioration of joint function and mobility.[8] Hyaluronic acid seems to have a natural affinity for joint tissue, and is therefore able to help support healthy joint structure and function.

• Maintains Youthful Skin*

Hyaluronic Acid and Collagen are both vital components of skin tissue. Both compounds are known to decline with aging. Collagen is a vital structural component of the skin. It is also one of the most important substances required for proper skin barrier function and health. Collagen, as a major component of the connective tissue, provides structural support, increasing elasticity and tone of the skin.

In 1994, researchers performed comparative measurements of hyaluronic acid levels in the skin of young and elderly individuals. The researchers had hypothesized that a major reason for the aged appearance of skin in the elderly is a reduction of hyaluronic acid levels. What they found using their methods is that there is a progressive reduction in the number of hyaluronic acid granules in human skin with age, until a complete absence of these granules was seen in individuals 60 years or older. These variations in HA levels with age could, according to the researchers, account for the decreased turgidity, wrinkled appearance and altered elasticity of skin tissue.[9] Further research was needed to determine the effect of exogenously administered HA on the suppleness of human skin.

In a laboratory study conducted in 1998, researchers analyzed the effects of HA given to live human skin cells. Whereas the cells on their own had a low rate of renewal, hyaluronic acid added to the cells resulted in increased proliferation of skin cells in the collagen matrix. This showed that supplementing skin cells with HA caused a significant increase in the ability of cells to go through the cell cycle.[10] One of the major benefits of this may be hyaluronic acid's ability to continually renew skin tissue to help maintain a youthful appearance of the skin.

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Scientific References

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7. Hepguler S, et al. The efficacy of intra-articular sodium hyaluronate in patients with reducing displaced disc of the temporomandibular joint. J Oral Rehab. 2002; 29: 80-86.

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Hyaluronic Acid and Collagen are vital structural components of skin that decline as we age, and are partly responsible for the skin's moisture, suppleness and elasticity. BioCell Collagen II® contains key components that can help support healthy skin and joint function.*

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Doctor's BEST®

Science-Based Nutrition™

Dietary Supplement

...made with... BioCell Collagen

Best Hyaluronic Acid with Chondroitin Sulfate

*SUPPORTS HEALTHY JOINTS**
*SUPPORTS YOUTHFUL SKIN**

60 Capsules
100mg Hyaluronic Acid per 2 Capsules

Supplement Facts

Serving Size 2 capsules
Servings per container 30 servings

	Amount per serving	% Daily Value
BioCell Collagen II®, providing:	1000 mg	†
Hyaluronic Acid	100 mg	†
Chondroitin Sulfate	200 mg	†
Hydrolyzed Collagen Type II	600 mg	†

† Daily Value not established.

Other ingredients: Rice powder, gelatin (capsule), magnesium stearate (vegetable source).

Suggested Adult Use: Take 2 capsules daily, or as directed by a health care practitioner. Take with 8-10 ounces of water, with or without food.

CONTAINS NOTHING OTHER THAN LISTED INGREDIENTS.

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