



# HyAppeal™

## VEGAN HYALURONIC ACID

### 120 mg

NPN 80116523

RESEARCH INFORMATION

### Feature summary

Natural Factors HyAppeal Vegan Hyaluronic Acid features a vegan, clinically validated form of hyaluronic acid shown to improve skin moisture and support its natural repair processes. Hyaluronic acid is a natural lubricant, and high levels are present in the skin and cartilage. It plays important roles in maintaining skin hydration and the cushioning of joints. As we age, the body's hyaluronic acid levels decline and our ability to synthesize it becomes impaired.

HyAppeal hyaluronic acid has been clinically shown to help replenish lost hyaluronic acid levels. Once absorbed, hyaluronic acid is broken down into smaller fragments before migrating to the skin, tissues, joints, or wherever it is needed. Hyaluronic acid activates the natural production of skin-firming collagen and increases hydration in connective tissues throughout the body. It works from the inside out to promote healthy skin moisture levels, leading to improvements in skin dryness and wrinkles. Hyaluronic acid is also used to replenish the amounts found in the synovial fluid of joints, promoting lubrication.

HyAppeal hyaluronic acid is made through a proprietary fermentation process, resulting in a highly purified form of hyaluronic acid that vegans and vegetarians can use. Each convenient vegetarian capsule contains 120 mg of hyaluronic acid that is non-GMO and gluten-free. All you need is one per day.

### How it works

When taken orally, hyaluronic acid is broken down into oligo hyaluronic acid by the microbiota of the large intestine. It is absorbed and circulated through the blood to the skin and other connective tissues (Hsu et al., 2021).

Hyaluronic acid is involved in skin cell turnover by stimulating the growth of dermal fibroblasts, which are the main cells found in the skin's dermis. Stimulating fibroblasts activates the synthesis of collagen and elastin fibres, and promotes hyaluronic acid production (Hsu et al., 2021). By binding to receptors on epidermal cells, hyaluronic acid helps normalize skin function and condition. Its high capacity for water retention and role in filling the extracellular spaces of the skin function to preserve tissue moisture levels, may play a role in reducing the formation of wrinkles. Hyaluronic acid also facilitates the transport of nutrients and ion solutes to cells in the upper skin layer (Hsu et al., 2021; Kawada et al., 2015).

Hyaluronic acid is a critical component of the synovial fluid of joints. Its high viscosity and water-binding capacity support smooth joint movement and cushioning. It protects joint cartilage from denaturation, blocks synovial inflammation, and increases the density of the cells responsible for cartilage formation (Kawada et al., 2014; Oe et al., 2016).

## Research

Hyaluronic acid is a natural lubricant found in the skin, joints, and other connective tissues throughout the body. With more than 50% of the body's total hyaluronic acid in the skin, its concentration has an important impact on skin moisture (Kawada et al., 2015). Age, sun exposure, sunburn, and other lifestyle factors reduce the amount of hyaluronic acid in the skin, leaving it more vulnerable to dryness and wrinkling (Hsu et al., 2021, Hašová et al., 2011).

HyAppeal features Hyabest® – a clinically validated form of hyaluronic acid. Multiple studies have validated the benefits of Hyabest hyaluronic acid for the skin. Clinical studies show that it helps preserve the moisture content in the skin's outermost epidermal layer (the stratum corneum), helping to relieve rough, dry skin and ease the formation of wrinkles (Hsu et al., 2021). In a randomized, placebo-controlled study, 35–64-year-old men and women were supplemented with 120 mg of Hyabest daily for 12 weeks. Through dermatological testing, it was discovered that supplementing with hyaluronic acid significantly improved the skin condition of the face, arms, and waist. This included a 16% reduction in transepidermal water loss and an 11% increase in hydration levels on the face. Through skin image analysis, the hyaluronic acid group was also found to benefit from a significant reduction in facial wrinkling (Hsu et al., 2021).

Hyabest's hydrating effect was further supported by a randomized, placebo-controlled study on adults with dry, sagging skin or eye wrinkles. Over a six-week period of supplementing with 120 mg of Hyabest per day, participants experienced a significant and steady rise in their skin moisture levels, in addition to improved ratings of skin lustre and suppleness. Moisture levels in the outer epidermis continued to rise over the two weeks after completing supplementation, reaching levels that were 60% above baseline measurements (Kawada et al., 2015).

Results from a placebo-controlled clinical study found that Hyabest may also reduce wrinkling. Male and female participants, aged 22–59, were found to exhibit a significant reduction in the appearance of "crow's feet" wrinkles after supplementing with 120 mg of Hyabest per day for eight weeks. This was measured as a reduction in eye wrinkle volume and area ratio (Oe et al., 2017).

Several studies have also shown that supplemental hyaluronic acid improves joint cushioning, helping to relieve the pain of some joint conditions (Kawada et al., 2014). A review of randomized, double-blind, placebo-controlled trials confirmed the effectiveness of hyaluronic acid as a therapy for inflammation within the connective tissue of joints (synovium). This included supplementation with hyaluronic acid at doses ranging from 48–225 mg per day to alleviate knee pain and improve daily physical activity in people with chronic knee pain (Oe et al., 2016).

In one of these studies, aging osteoarthritic participants were supplemented with Hyabest and performed quadricep-strengthening exercises daily for 12 months. Although both the hyaluronic acid and placebo groups benefited from this therapy, improvements in knee osteoarthritis measure (JKOM) scores were more significant for the participants who had supplemented with Hyabest, especially for those ages 70 and younger (Tashiro et al., 2012).

## Ingredients

### Each vegetarian capsules contains:

Hyaluronic acid (HyAppeal™) ..... 120 mg

## Dosage

**Recommended adult dose:** 1 capsule daily or as directed by a health care practitioner.

## Cautions

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. Consult a health care practitioner if symptoms worsen. Keep out of the reach of children.

## References

- Hašová, M., Črhák, T., Safránková, B., et al. (2011). Hyaluronan minimizes effects of UV irradiation on human keratinocytes. *Arch Dermatol Res*, 303(4), 277-84.
- Hsu, T.F., Su, Z.R., Hsieh, Y.H., et al. (2021). Oral hyaluronan relieves wrinkles and improves dry skin: A 12-week double-blinded, placebo-controlled study. *Nutrients*, 13(7), 2220.
- Kawada, C., Yoshida, T., Yoshida, H., et al. (2014). Ingested hyaluronan moisturizes dry skin. *Nutr J*, 13, 70.
- Kawada, C., Yoshida, T., Yoshida, H., et al. (2015). Ingestion of hyaluronans (molecular weights 800 k and 300 k) improves dry skin conditions: A randomized, double blind, controlled study. *J Clin Biochem Nutr*, 56(1), 66-73.
- Oe, M., Sakai, S., Yoshida, H., et al. (2017). Oral hyaluronan relieves wrinkles: A double-blinded, placebo-controlled study over a 12-week period. *Clin Cosmet Investig Dermatol*, 10, 267-73.
- Oe, M., Tashiro, T., Yoshida, H., et al. (2016). Oral hyaluronan relieves knee pain: A review. *Nutr J*, 15, 11.
- Tashiro, T., Seino, S., Sato, T., et al. (2012). Oral administration of polymer hyaluronic acid alleviates symptoms of knee osteoarthritis: A double-blind, placebo-controlled study over a 12-month period. *Sci World J*, 167928.