

BDF Naturlagen®: Hydrolyzed Marine Collagen

Water-like collagen. Outstanding results.

BDF NATURLAGEN® is our marine, hydrolyzed collagen powder made from the skins of wild, deep-sea ocean fish such as cod, haddock and pollock. Hydrolyzed collagen consists of low-molecular weight peptides. These small collagen peptides are made using enzymatic collagen hydrolysis. When administered orally, hydrolyzed collagen reaches the small intestine, where it is absorbed into the bloodstream and distributed throughout the body.

Properties

- + **Wild-caught fish** with no risk of exposure to antibiotics or hormones as occurs with farm-raised animals or fish.
- + Produced in 100% wild fisheries (**MSC Certified**) with no risk of cross contamination with meat products.
- + Wild-Caught Marine Collagen Peptides have a smaller carbon footprint than bovine or other animal collagen peptides.
- + **Low Molecular Weight:** ~3000 Da
- + **Water-like** product
- + **Halal and Kosher** Certifications
- + Heat-stable
- + Dust-free powder
- + Stable in acidic conditions
- + Low heavy metal content
- + Over **92% protein** content
- + Highly bio-available protein
- + Easily digestible
- + No additives or preservatives
- + **High essential amino acid** content
- + Produced in **Europe**

Benefits

Health



- + **Daily intake of 5g** of collagen peptides helps accelerate muscle recovery, attenuates muscle soreness following strenuous physical exercise, and significantly reduces activity-related knee joint pain in young physically active individuals.
- + **Pain-alleviating and anti-inflammatory** effects.
- + Collagen peptides **increase fat-free mass** (FFM) and strength in sarcopenic and active men.

Sport



- + The promotion of **lean muscle growth**, as well as strength and muscle mass.
- + Aiding the formation of healthy joints and strong bones and **accelerating recovery** after intense exercise.
- + It improves athletic performance helps **prevent** soft tissue **injuries**.

Beauty



- Topic application**
- + Collagen provides excellent **moisturizing effects** through water absorption, preventing skin dehydration without signs of skin irritation.
- Oral consumption**
- + Improves the **health of skin** cells by increasing collagen production and by inhibiting collagen breakdown.
 - + Improves **suppleness and elasticity** in the skin, leading to diminished surface roughness, increased smoothness, and fewer wrinkles.

Applications

FOOD SUPPLEMENTS

Nutritional supplements

FOOD INGREDIENTS

Functional foods

COSMETICS

Facial, body and hair applications

Clinical-dermatological study - BDF Naturlagen®

BDF Naturlagen® is one step ahead when it comes to marine-sourced, hydrolysed collagen powder. This entirely natural supplement is made from the skins of wild-caught, deep-sea marine fish. Our ground-breaking product is made in our state-of-the-art plant using the latest technology. BDF Naturlagen® has quickly become one of the main references for collagen products on the international market.

Marine collagen has numerous benefits that span three interconnected lifestyle areas: health, sports, and beauty. With respect to its beneficial effects on health and beauty, BDF is now releasing the latest clinical study on BDF Naturlagen® which was undertaken at the Dermatest Laboratories, a leading German research organisation.

The human skin is the largest, and functionally speaking, the most versatile human organ. It separates the inner workings of the body from the outside world and protects it from dehydration and harmful environmental factors. Healthy skin is not only important with respect to beauty and having a youthful appearance, it is also a key aspect in personal well-being.

Collagen is an essential scaffold protein that provides smoothness and suppleness to the skin. However the body's natural production of this substance declines as we age. From early adulthood, collagen production declines by about 1.0% to 1.5% every year.

The aim of this research initiative was to test the benefits of BDF Naturlagen® with regard to its tolerability and efficacy, using clinical-dermatological criteria as a test basis.

The Trials

The test was performed with 20 healthy women aged between 40 and 65.

The product was taken orally once a day in a 5 g dose over 12 weeks. Test subjects were instructed not to use any similar products during the period of study.

Measurement of Skin moisture

Skin moisture levels in the upper layer of the skin (the stratum corneum) can be determined by quantifying capacitance. Analyses were made using the Corneometer® CM 825. The skin moisture levels of all the subjects were analysed before starting the consumption of Naturlagen as well as after 6 and 12 weeks.

Measurement of Individual Wrinkle Depth

Over time, permanent wrinkles develop around the eyes in every human being. Wrinkle depth was determined using the optical 3D in-vivo skin measurement PRIMOS (Phase-shift Rapid In vivo Measurement Of Skin). The depth of 5 selected strip profiles were analysed before the consumption of Naturlagen and after 12 weeks of consumption.

Conclusions

This clinical study shows the effectiveness of BDF Naturlagen®. The test product was taken orally during a period of 12 weeks by 20 subjects once a day (5 g):

- + Determination of the skin moisture carried out under clinical-dermatological control showed improvement of skin moisture by 74.53% after six weeks and by 115.90% after 12 weeks.
- + Determination of the individual wrinkle depth carried out in 5 out of 20 subjects under clinical-dermatological control showed improvement of individual wrinkle depth by 23.57% after 12 weeks.

Results

Skin Tolerability

No relevant reactions in the test were observed from a clinical-dermatological perspective; the product had very high tolerance levels. No reactions of intolerance that suggested irritation or allergic reactions were detected.

Efficacy

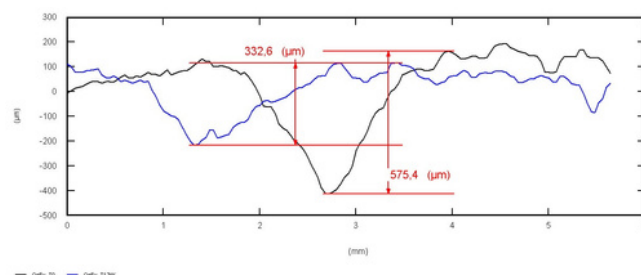
Facial Skin Moisture Results

Results showed an improvement of facial skin moisture by 74.53 % after 6 weeks and 115.90 % after 12 weeks.



Wrinkle Depth Results

An improvement of individual wrinkle depth of 23.57 % was shown in the test area.



Wrinkle Depth Pictures



GeEV_T0 weeks

GeEV_T12 weeks