It provides relief for the skin and controls outbreaks in psoriasis and atopic dermatitis.
BIOIBERICA, S.A. is a biotechnological company that specialises in the research, development and distribution of high biological and therapeutic value biomolecules that contribute to improving people’s quality of life.

**HEPARIN**
The most used anticoagulant and antithrombotic medicinal product in the world. 1 in 5 doses of heparin is by Bioiberica.

**FUNCTIONAL LIPIDS**
Bioiberica produces functional lipids with beneficial properties in different health areas: dermatological, cognitive and metabolic.

This specialisation leads us to continuously investigate new applications in other therapeutic areas.

**CHONDROITIN SULFATE, GLUCOSAMINE AND HYALURONIC ACID**
One of our priorities is to improve the quality of life of the 200 million-plus patients in the world that suffer from osteoarthritis, articular lesions and other musculoskeletal disorders.

Bioiberica specialises in the prevention, diagnosis and treatment of joint health.

BIOIBERICA

**SCIENCE IN BIOMOLECULES APPLIED TO DERMATOLOGY**

It provides relief for the skin and controls outbreaks in psoriasis and atopic dermatitis.

2 products:

- **TOPICAL AQUASORB**
- **ORAL AQUASORB**

Formulations studied to leverage all the beneficial effects of its ingredients, which have proven their capacity to recover and maintain the balance of altered skin.

**Clinical Improvement**
- Erythema
- Pruritus
- Desquamation
- Hyperkeratosis
- Dryness

**Reduction of Episodes**
How does AQUASORB act in Psoriasis and Atopic Dermatitis?

- It controls clinical episodes
- It reduces their frequency
- It makes it possible to reduce drug doses

Ingredients with proven clinical efficacy

- 100% natural ingredients with a high safety profile
- No side effects and compatible with other treatments
- BIOIBERICA guarantees the maximum quality of its active ingredients

ACTION IN PSORIASIS AND ATOPIC DERMATITIS

- Highly-pure concentrated fatty acids
- Environmentally sustainable, endorsed by the Friends of the Sea Association

NEW INGREDIENTS IN DERMATOLOGY

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>Chondroitin Sulfate</th>
<th>Sphingolipids (ceramide and sphingomyelin)</th>
<th>Hyaluronic Acid</th>
<th>Omega 3</th>
<th>Vitamins B7, B3 &amp; B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduces skin inflammation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Controls pruritus</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Stimulates endogenous synthesis of ceramides</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Improves skin hydration</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Reduces skin irritation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Improves clinical outcome</td>
<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>
It reduces skin inflammation

- Psoriasis and atopic dermatitis have an important inflammatory component.
- In patients with psoriasis, there is a deregulation of NF-kB that leads to a pro-inflammatory condition.
- CS reduces the translocation of NF-kB and consequently reduces skin inflammation.
- CS presents an excellent safety profile.


The administration of CS B BIOACTIVE achieves an outstanding clinical and histological clinical benefit in psoriatic lesions

First clinical case carried out with 3 patients with osteoarthritis and psoriasis concomitantly

54% reduction in total epidermis thickness in a 67-year-old patient treated for 2 months with 800mg/day of chondroitin sulfate.

74% reduction in keratinocytes (Ki-67) cell proliferation rate in a 57-year-old patient treated with 800mg/day of chondroitin sulfate for 2 months.

Before treatment | After treatment
Before treatment | After treatment


Clinical and histological improvement in psoriatic plaques in 91% of the cases

Second clinical case performed with 11 patients with osteoarthritis and psoriasis concomitantly

Epidermis thickness before treatment.

54% reduction in the total thickness of the epidermis treated for two months with chondroitin sulfate.


It reduces the signs of psoriasis (n=129)

The administration of CS for 3 months delivers a statistically significant reduction in the signs of psoriasis.

Reduction in the intensity of psoriasis after 3 months of treatment.

Omega 3 (EPA and DHA)

Reduces skin inflammation

· The oral administration of omega-3 fatty acids complements the topical treatment of psoriasis, significantly contributing to a reduction in pruritus, erythema and desquamation in the affected areas.

It stimulates the endogenous synthesis of ceramides, improving the skin’s lipid structure and composition.

Biosfeen contains sphingomyelin, which has a dose-dependent inhibition effect on the synthesis of PGE2 in an in vitro keratinocyte model.

In atopic dermatitis, there is a reduction in the content of skin ceramides that compromises the epidermis’s barrier function.

The application of the Biosfeen sphingolipid extract stimulates the endogenous synthesis of ceramides.

Improvement in the skin’s lipid structure and composition.

Supplementation with DHA led to an increase in omega-3 plasma concentration, resulting in a clinical improvement of atopic eczema determined by a reduction in the SCORAD index.

Hyaluronic Acid

Skin moisturisation and elasticity

Hyaluronic acid is a glycosaminoglycan present in the epidermis, and one of the main components of the extracellular matrix. It has a high water retention capacity and has been proven to play a central role in skin moisturisation and elasticity.

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Study to evaluate Aquasorb’s efficacy in patients with dermal alterations
Principal investigator: Montse Pérez MD (Clínica Moragas)

Effect of AQUASORB on the clinical symptoms of dermal alterations using the following parameters in 18 patients with psoriasis or atopic dermatitis:

- Desquamation
- Erythema
- Pruritus
- Hyperkeratosis
- Fissures/Cracks

<table>
<thead>
<tr>
<th>Parameter</th>
<th>PSORIASIS</th>
<th>ATOPIC DERMATITIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Male/Woman) (%):</td>
<td>50/50</td>
<td>25/75</td>
</tr>
<tr>
<td>Age</td>
<td>50.8±5.2</td>
<td>47.6±5.3</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>28.3±1.8</td>
<td>26.1±1.3</td>
</tr>
<tr>
<td>Baseline Mass Index (0-10)</td>
<td>10.8±0.5</td>
<td>8.2±0.3</td>
</tr>
<tr>
<td>Degree of desquamation (0-4)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Degree of erythema (0-4)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Degree of pruritus (0-4)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Degree of hyperkeratosis (0-4)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Degree of fissures/cracks (0-4)</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The improvement in global clinical index is **78%**.

In **80%** of the patients, there is an improvement in the degree of desquamation, erythema, pruritus, hyperkeratosis and fissures and/or cracks.

**It provides relief for the skin and controls outbreaks in psoriasis and atopic dermatitis.**

**The improvement in global clinical index is 78%.**

**Pruritus and erythema are significantly reduced in all patients.**