



The eyes look conveys beauty and attractiveness and is essential in interpersonal communication. As we age, the delicate skin around the eyes becomes even thinner and therefore more susceptible to age-related changes.

The eyes dark circles appears due to the retention of liquids as a consequence of a greater permeability of the blood vessels, which when added to the bilirubin accumulation (from the decomposition of the hemoglobin) induces vascular pigmentation and therefore, the dark circles.

In addition, the deterioration of skin support proteins, such as collagen and elastin, contributes to greater visibility of these signs, and the development of wrinkles.

BIOPHYTONIC rollon is a serum composed of 5 plants and bioflavonoids.

Hamamelis virginiana, Arnica montana, Horsetail, Malva and Rusus, which activate blood circulation. It has anti-inflammatory, soothing and decongestant properties. It corrects eye bags, dark circles and repairs lines of expression and signs of aging in this sensitive area.

It provides multiple benefits: nourishes and hydrates even the driest skins.

BIOACTIVE INGREDIENTS

1) BIOPHYTONIC

Is a **botanical active ingredient** combining the extracts from **5 plants and bio-flavonoids** having positive activity on **eye bags, dark circles** and **wrinkles, clinically probed**.

BIOPHYTONIC combines:

- **Arnica montana.** Decongestive, anti-inflammatory, venotonic and vessel-protective activity. Mainly due to its sesquiterpene lactones and flavonoids content.

Flavonoids are vein-active and vessel-protective agents, reducing the permeability and increasing the resistance of blood capillaries.



- **Hesperidin Methyl Chalcone**

Bioflavonoid derivative of the flavonoid hesperidin. HMC has antioxidant properties, which helps combat the inflammation and cell damage caused by free radicals. Its benefits include improved blood flow and integrity of blood vessels, it is decongestive and tonic. HMC improves the appearance of the characteristic bluish-black circles under the eyes.



- **Hamamelis virginiana**

Powerful vasoconstrictive action activity by its high **flavone heterosides**. Phlebotonic and vasoprotective. Reduces blood capillaries permeability. These effects are reinforced by the hamamelis **leucoanthocyanidins**.



- **Aesculus Hippocastanum**

Anti-inflammatory and **anti-edema** properties, due mainly to the presence of **triterpenic saponins** (10%), and particularly to that of **escin**. **Escin** works on the connective tissue and the cell membranes.



- **Ruscus aculeatus**

Phlebotonic and anti-inflammatory properties. Mainly due to its phenolic acids and flavonoids content. Ruscogenin potent vein-constrictor that exerts anti-oedema actions.

Mircetol, quercetol and kaemferol (phenolic acids) are inhibitors of different mediators at inflammatory process.

Rutin and Hesperidin Methyl-chalcone (Flavonoids) improves venous insufficiency.

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▪ **Malva Silvestris (Mallow)**

Very rich in polysaccharides (mucilages), 15-20% and **uronic mucilages** with **moisturizing, emollient, soothing, calming** and **decongestive** properties .



Vessel-protection and venotonic activities attributed to its flavonoids content.

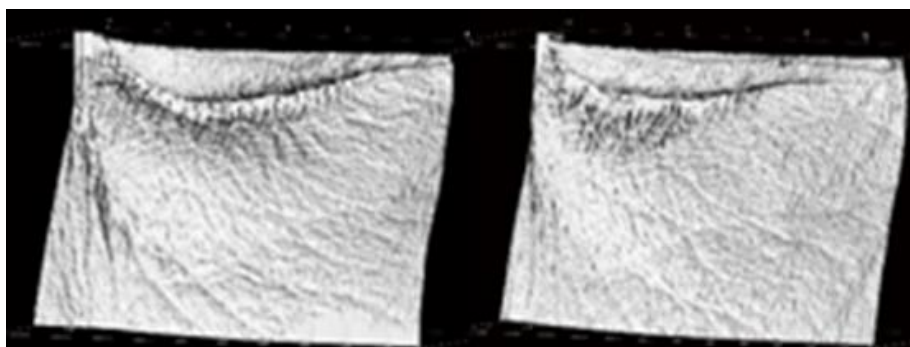
Clinical Efficacy: In-vivo evaluation of the Anti-Eye bags and Anti-Dark Circles effect of 3% BIOPHYTONIC:

In-vivo Evaluation of the anti-puffiness and anti-dark circles efficacy of BIOPHYTONIC 3%. 15 female volunteers, 42 - 79 years old. ›Tired look characterized by wrinkles, eye bags, and dark circles. ›Twice daily application for 28 days of a gel-cream dosed with 3% BIOPHYTONIC in the area around the eyes of an hemiface (vs placebo in the other hemiface).

Assessment of the eye bags and roughness reduction: After 28 days there was a significant decrease in the eye bags volume and roughness compared with placebo:



BIOPHYTONIC has the capacity to induce, significantly, a smoother skin:

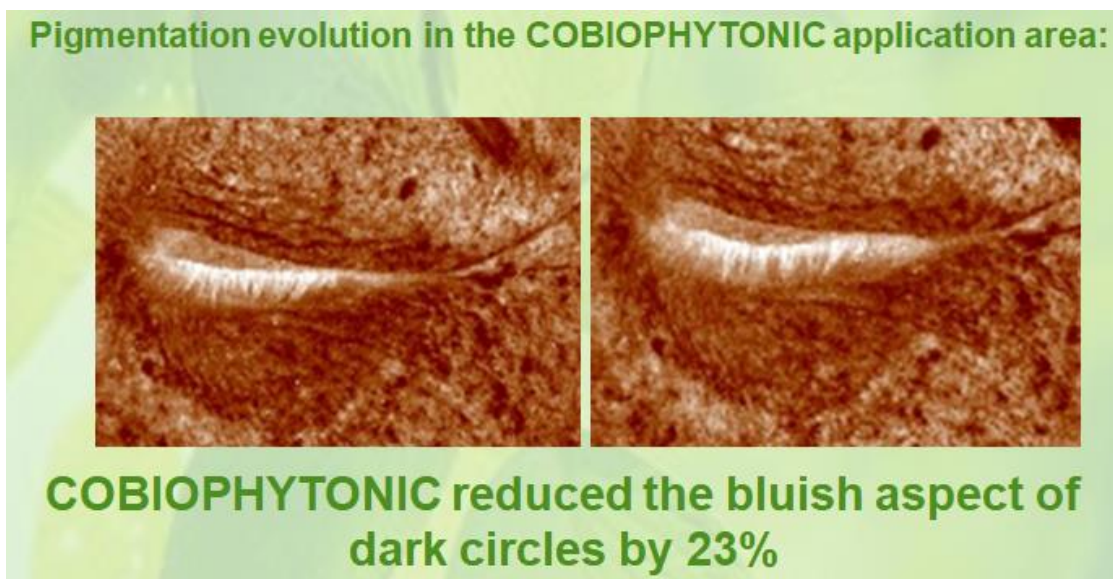


3D images of the eye bag area evolution where BIOPHYTONIC was applied:

Assessment of the Dark-circles by chromameter evaluation:

Skin color is obtained using a color analyzer that measures reflected color (Minolta Chromameter CR-400). › The system provides data for the Luminance (L^*), a^* (red-green) and b^* (blue-yellow) color distribution. › The measurements were performed on D0 and D28.

› After 28 days, there was a **statistically significant change in skin Luminance, a^* , and b^* parameters for BIOPHYTONIC. BIOPHYTONIC presented a 2.1% increase in Luminance (L^*), a 22.8% decrease in redness aspect (a^*) and a 13.7% increase in skin yellowish aspect (b^*), therefore, reducing bluish aspect (the vascular component) of dark circles.**



2) CAFFEINE

Caffeine has antioxidant properties, stimulates the microcirculation and helps reduce puffy eyes and dark circles.

Activates lipolysis and mobilizes accumulated fat.