

MaquiBright™



for dry eyes



MaquiBright™ makes dry eyes moist

MaquiBright™
improves tear fluid
generation

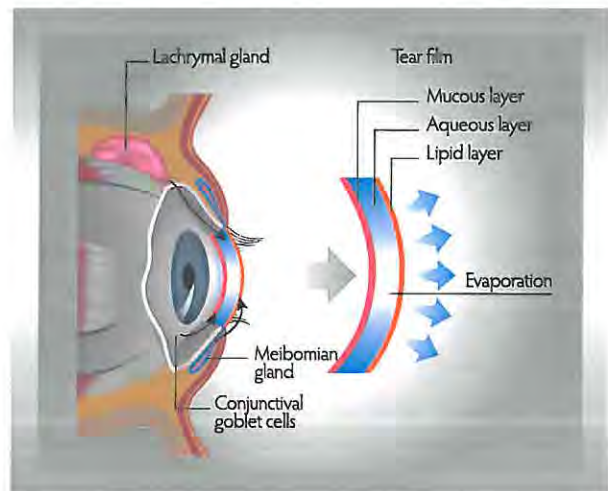


MaquiBright™
quenches bothersome
symptoms, like irritation,
blurred vision, sensitivity
to light etc.

Dry eyes result from an imbalance of tear fluid secretion and its evaporation and drainage. Research has shown that tear fluid secretion from lachrymal glands, which are positioned under the eyelids, decreases as result of oxidative stress. This was initially found with people exposed to cigarette smoke. Symptoms related to dry eyes may affect anyone at times. Unfavourable ambient conditions, such as central heating or air-conditioning or decreased pressure in airplanes, lead to accelerated evaporation of tear fluid.

Tear glands need to compensate for challenged hydration of the cornea. Blinking eyes frequently helps moisten the eyes, though this often is difficult during long work on visual displays, the use of contact lenses and challenging ambient conditions. Dry eyes commonly develop as side effect of medications, such as antihistamines. Women more commonly experience dry eyes than men and typically symptoms develop with increasing age.

During recent years research has revealed that ageing, oxidative stress and inflammation affect the functionality of tear-fluid generating lachrymal glands and contribute to the development of dry eyes.

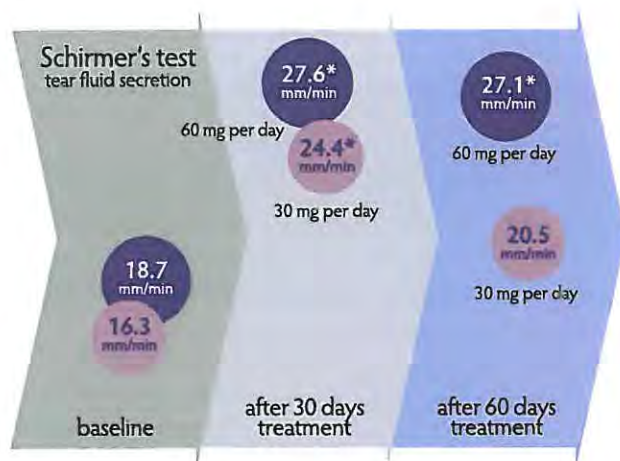


Research has shown that specific delphinidin-glycoside species prevailing predominantly in maqui berry and MaquiBright™, but scarcely in other berry species, are absorbed into lachrymal gland cells, to quench oxidative stress inside cells and hence to naturally restore tear fluid generation.

MaquiBright™ research shows greater tear fluid generation

Two groups of individuals presenting with moderately dry eyes were treated with 30 or 60 mg MaquiBright™, respectively, per day over a period of two months [Hitoe et al., 2014]. The tear fluid generation was measured by the standard "Schirmer's test" which requires an insertion of graded strip of blotting paper under a closed eyelid. The speed at which the tear fluid seeps into the paper strip depicts fluid production performance.

Schirmer's test tear fluid secretion



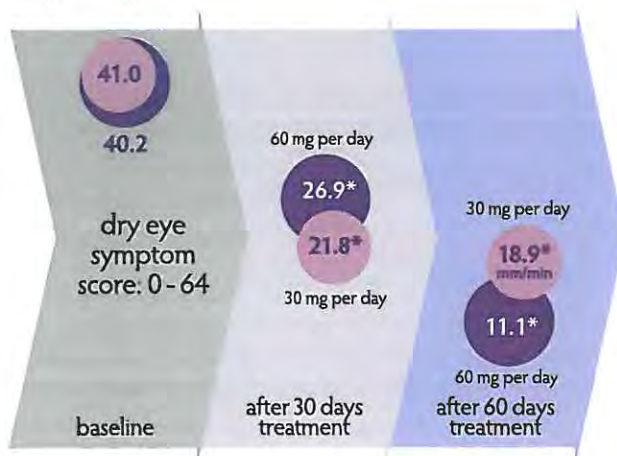
MaquiBright™ improved tear fluid production in all study participants after 30 and 60 days of treatment. The group supplemented with 60 mg MaquiBright™ per day showed statistical significant tear production increase after 30 and 60 days treatment.

Did you know?

- Tear fluid does not merely serve as lubricant
- Tear fluid nourishes the cornea as substitute for the absence of blood vessels
- Tear fluid carries glucose, vitamin C, aminoacids, minerals, lipids, anti-bacterial agents and growth factors to maintain corneal integrity
- Eye drops may never fully replace natural tear fluid

MaquiBright™ lowers symptoms related to dry eyes

Study participants treated with MaquiBright™ experienced significant symptom relief related to eye dryness. Using a validated "dry eye quality of life questionnaire" (www.dryeye.ne.jp/en), the reduction of symptoms related to dry eyes after treatment with 30 or 60 mg per day MaquiBright™, was explored.



MaquiBright™ provided significant improvement across all bothersome ocular symptoms related to dry eyes: the foreign body sensation, eye dryness sensation, eye pain and soreness, ocular fatigues, an eyelid heaviness sensation and eye redness. Moreover, MaquiBright™ soothed the impact of dry eyes on daily life routines.

Common dry eye-related burdens such as a blurred vision when focussing on something, watching television or reading, using cell phones or working on computers did all improve.

The sensitivity to bright light, the feeling of being distracted because of eye dryness, especially also at work were improved by supplementation with MaquiBright™.

Symptoms Indicative of Eye Dryness

- Eye redness
- Irritation
- Stinging
- Itching
- "Foreign body" sensation
- Increased sensitivity to light
- Blurred vision

MaquiBright™ specific delphinidin species accumulate into lachrymal gland cells

MaquiBright™ delphinidins quench oxidative stress and hence restore healthy tear fluid production [Nakamura et al., 2014].



dry eye symptoms

healthy tear production

In pre-clinical studies MaquiBright™ was proven to be superior to other berry extracts for restoration of healthy tear fluid secretion. Bilberry extract displayed only 30% of the efficacy of MaquiBright™ and black currant extract only 21%, respectively [Nakamura et al., 2014]. MaquiBright™ is a standardised extract of Maqui (*Aristotelia chilensis*) berries, providing $\geq 25\%$ delphinidins and $\geq 35\%$ total anthocyanins.

REFERENCES

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 Sakane Y et al. *JAMA Ophthalmol* 131: 1331-1338, 2013.
 Tsubota K et al. *Cornea* 31 Suppl 1: S3-8, 2012.

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