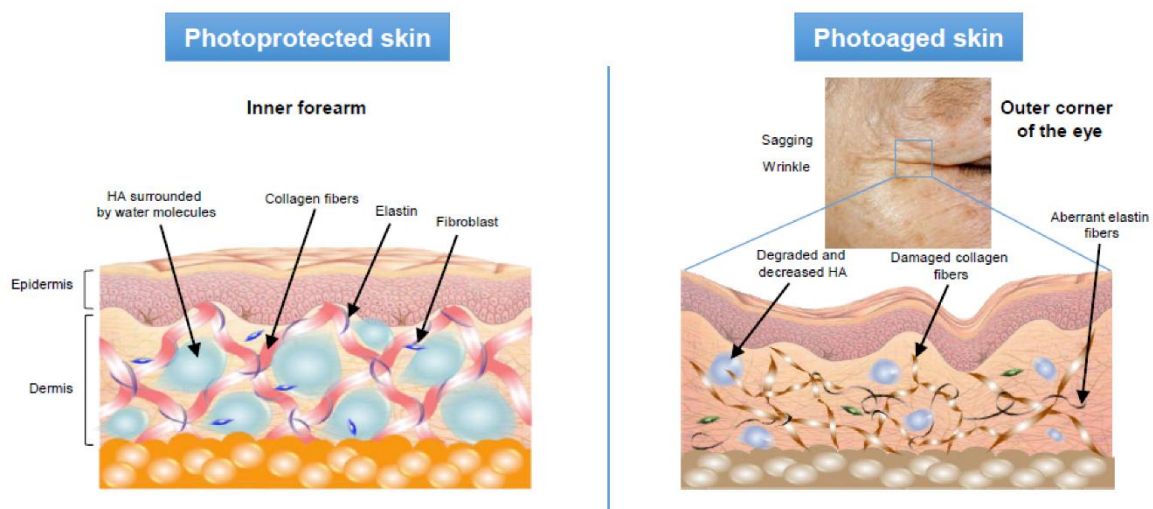


LAZU Skin Protect Benefits for Anti-Aging Skin

Photoaging is premature ageing of the skin caused by repeated exposure to ultraviolet radiation (UV), primarily from the sun but also from artificial UV sources.



This illustration demonstrates what happens to the skin when collagen (around 80% of all protein in the skin) and other structural proteins that support the skin start to break down. Skin thickness is reduced, the skin loses its ability to bind and hold water (hydration and moisture), the loss of structure causes wrinkles and fine lines to appear.

This is a natural and unavoidable part of ageing, but photoaging is the accelerated and premature process of ageing skin.

Photoaging differs from **chronologic ageing**: Photoaging is the accumulated damaging effects of UV rays – from the sun or artificial tanning sources – which change the normal skin structures.



Fig 1 & 2. The dark spots on the right-hand side images are examples of the "unseen" skin damage from typical daily exposure to UV light, despite the image on the left of each subject looking very normal. The more black spots, the greater the rate of accelerated ageing (photoaging) is occurring. The photographs on the right are taken with a "Woods" lamp, which is designed to illuminate damaged collagen beneath the epidermis and used by dermatologists to assess the extent of skin damage in patients.

The only approved anti-ageing claim that can be used by the skincare industry in the US is when a skincare formula contains a sunscreen ingredient with an SPF30+, it can then make an "anti-ageing" claim.

The reason is that the only proven way to improve the age-related effects on the skin is to block the accelerated ageing effects from UV or environmental damage.

LAZU Skin Protect is not an oral "suntan"; It is, however, a powerful antioxidant that has been shown to:

- 1) protect the DNA in skin cells,
- 2) protect the mitochondria in skin cells and,
- 3) prevent the breakdown of collagen (the structural protein within the skin).

And so, while LAZU Skin Protect is not a sunscreen, dermatologists today universally recommend to their patients that they take a daily supplement containing at least 180mg of Polypodium leucotomos to extract to help compliment the skincare / topical sunscreen regime, which should include the application of a daily sunscreen of at least SPF30. This is the only proven method to keep skin looking youthful for longer.

But what happens if you already have signs of accelerated ageing? Then there are treatments available to reverse the effects of ageing. Still, after that, you need to keep using daily sunscreen and a daily supplement of at least 180mg of Polypodium leucotomos.

Reversing the Effects of Aging Skin

There are three major treatment approaches to reversing the damage associated with photoaged skin.

- 1) Light therapy – IPL or laser (also microwave therapy)
- 2) Chemical peel – including fluorouracil, calcipotriol or glycolic acids.
- 3) Retinol products

The first two approaches work by ablating or destroying cells in the dermal layer. The regeneration of new cells (the wound healing process) regenerate fresh skin. These approaches are referred to as being minimally invasive and are generally painful and take 1-2 weeks to recover.

The third approach using retinols (vitamin A derivatives) stimulates cell turnover and new tissue regeneration; however, the compounds are irritating at optimal concentrations and can only be tolerated by around 30% of patients.

All these processes are prescription drugs or provided by certified professionals.

Dermatologists generally suggest that their patients avoid the expense and pain of anti-ageing treatment and take a prevention approach instead.

The advice is that women should only use daily skincare products with an SPF30 sunscreen and take a Polypodium leucotomos extract such as **LAZU Skin Protect** to block accelerated skin ageing and ensure they retain more younger-looking skin than their friends.

This is even more important with those who have a lighter skin tone, which is most susceptible to photoaging and accelerated ageing for environmental factors.

Grant Washington-Smith

Technical Manager

REFERENCES:

"The intake or topical application of *P. leucotomos* may be beneficial to skin health, in ageing and cancer prevention or treatment."

Philips, N., Conte, J., Chen, YJ. et al. Beneficial regulation of matrixmetalloproteinases and their inhibitors, fibrillar collagens and transforming growth factor- β by Polypodium leucotomos, directly or in dermal fibroblasts, ultraviolet radiated fibroblasts, and melanoma cells. Arch Dermatol Res 301, 487 (2009). <https://doi.org/10.1007/s00403-009-0950-x>

"*P. leucotomos* demonstrates dual protective effects on the extracellular matrix [support structure of the skin] via the inhibition of the proteolytic enzymes and the stimulation of TIMPs, structural collagens (types I, III, V) of extracellular matrix, and TGF- β in fibroblasts [34].." [this paper proposes that *P. leucotomos* protects the skin from photoaging by protecting the skin's collagen]

Ivana Binic, Viktor Lazarevic, Milanka Ljubenic, Jelena Mojsa, Dusan Sokolovic, "Skin Ageing: Natural Weapons and Strategies", Evidence-Based Complementary and Alternative Medicine, vol. 2013, Article ID 827248, 10 pages, 2013. <https://doi.org/10.1155/2013/827248>

"[*P. leucotomos* provides] preservation of important Langerhans cells, decreased hyperpigmentation, significant inhibition of UV-induced mitochondrial DNA damage, and strong reductions in collagen degradation enzymes."

Y Khayat - yochanakhayat.wordpress.com