

Vitisses

The solution **to beating vitiligo**
with melon extract

SeSDERMA
LABORATORIES

Vitises

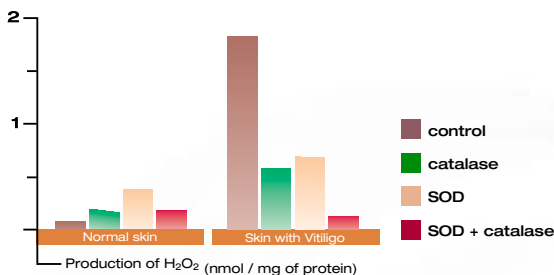
Vitises: antioxidant action with melon extract

Melon extract is a major content in superoxide dismutase enzymes (SOD) and strong catalase antioxidants that act during the first phase of free radical generation. They neutralize and prevent the generation and dispersal of new free radicals responsible for cell damage.

The protective effect of **SOD + catalase** on vitiligo keratinocytes and melanocytes has been demonstrated.

SOD + catalase reduce the levels of:

- superoxide anion ($O_2^{\cdot-}$)
- nitric oxide ($\cdot NO$)
- hydrogen peroxide (H_2O_2)



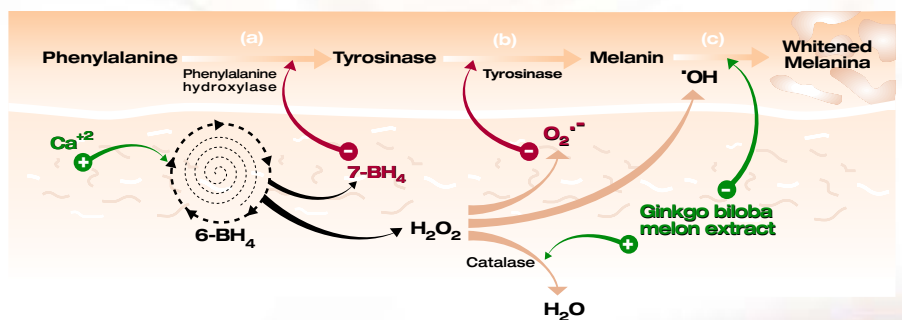
Neutralization of melanogenesis cycle inhibition

(a) Phenylalanine hydroxylase: inactivation of this enzyme occurs when the biopterin / 6-BH₄ metabolism is dysfunctional. This happens if intracellular calcium decreases, which consequently increases the intermediate metabolites (7-BH₄) from the recycling of 6-BH₄, and increases H₂O₂ levels.

The provision of Calcium together with Catalase regulates the biopterin regeneration cycle, decreasing H₂O₂ levels.

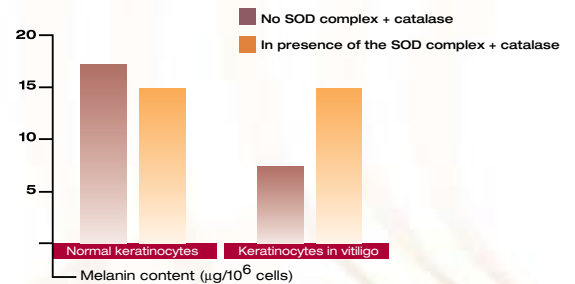
(b) Tyrosinase: its inactivation occurs by the presence of oxygen free radicals (Superoxide ion, $O_2^{\cdot-}$). The supply of Catalase and Superoxide dismutase (melon extract) together with *Ginkgo biloba*, decreases H₂O₂ and $O_2^{\cdot-}$ levels

(c) Melanin: in presence of oxygen free radicals ($\cdot OH$) a whitening effect takes place. The supply of Catalase and Superoxide dismutase (melon extract) together with *Ginkgo biloba*, decreases $\cdot OH$ levels.

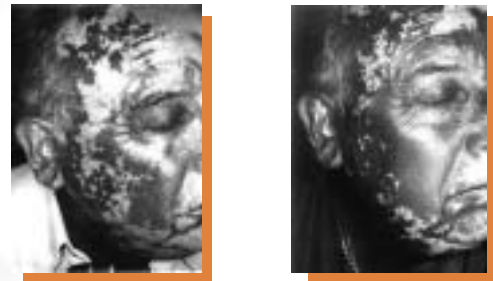


What happens to the skin with vitiligo?

- Due to oxidative stress (high concentrations of free radicals) vacuolization and cell death occur.
- Vitiligo is characterized by a catalase deficiency. The addition of catalase reverses the vacuolization of the melanocytes and keratinocytes.



- Keratinocytes in vitiligo lesions have pro-inflammatory responses, which can be inhibited through the combination of SOD and Catalase.



Systemic Treatment

Vitises Softgels



Each softgel contains:

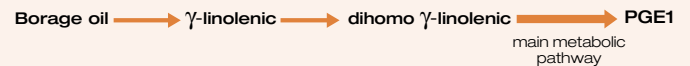
Borage oil (400 mg); L-cystine (150 mg); melon extract (10 mg); vitamin E (10 mg); folic acid (200 µg); & vitamin B12 (1 µg).

Ideally we recommend 4 capsules per day - 2 in the morning and 2 at night.

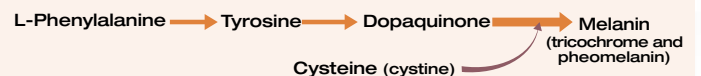
60 softgels

An efficient antioxidant complex that contains melon extract as well as:

- Ⓢ **Borage oil:** essential fatty acids (EFA) act on the structure of cell membranes and in the synthesis of series 1 prostaglandins, which possess anti-inflammatory activity. The EFAs also protect the membranes from free radical attack.



- Ⓢ **L-cysteine:** an amino acid with antioxidant action that actively participates in melanin synthesis.



- Ⓢ **Folic acid and vitamin B12:** people with vitiligo have levels under normal of these components. The provision of these vitamins favors the processes of skin pigmentation. An additional oral supply, especially if it is combined with solar exposure of the affected area, promotes repigmentation.

Topical Treatment

Vitises Gel



This is a rapidly absorbing, non-greasy gel that regulates cutaneous pigmentation. Along with melon extract, it contains:

- Ⓢ **Ginkgo biloba (L.):** the alcoholic extract from the leaves of ginkgo biloba has antioxidant activity. It traps free radicals and inhibits the generation of reactive oxygen species. This action has been related to the increase of the half-life of nitric oxide (endothelium-derived relaxation factor), which leads to vascular relaxation and vasodilatation.
- Ⓢ **Calcium chloride:** certain evidences show a pathogenic association of vitiligo with an increase of epidermal oxidative stress. This is due to an increase of 6-tetra-hydro-biopterin 6-BH₄ (a potent inhibitor of phenylalanine hydroxylase), an increment of the monoaminoxidase A epidermal activity and subsequent generation of H₂O₂. This can originate the rapid oxidation of 6-BH₄ to 6-biopterin, a melanotoxic molecule. The REDOX state of this molecule is controlled by calcium through the thioredoxin reductase / thioredoxin system. Calcium transport in vitiliginous melanocytes is defective. Defective calcium transport can be reverted in vitro by increasing external calcium concentrations.

Vitises + complementary treatments

The treatment with **Vitises** may be complemented with:

- Ⓢ Topical steroids.
- Ⓢ Tacrolimus ointment.
- Ⓢ PUVA (Ultraviolet-B radiation).
- Ⓢ Phenylalanine (for example, Fenalderm Softgels).
- Ⓢ MEL (Monochromatic Excimer Light).
- Ⓢ Red light therapy.

Composition: 2% melon extract; 0.5% calcium chloride; 1% Ginkgo biloba extract. It is recommended to apply **Vitises Gel** 2 or 3 times a day on vitiligo patches.

Presentation: 100 ml
50 ml

References

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