

# REDUCTION OF SKIN MELANIN INDEX THROUGH NUTRITIONAL SUPPLEMENTATION (Estime®-IBS). A DOUBLE-BLIND PLACEBO-CONTROLLED STUDY.

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## ABSTRACT

A new dietary supplement, Estime®-IBS, was investigated for its possible skin melanin reducing properties. A 3-month double-blind placebo-controlled study with 38 female volunteers (19 test / 19 placebo) showed a significant reduction in the melanin index difference as compared to placebo (3 months, test group, 63%). Estime®-IBS is the first dietary supplement which can significantly reduce melanin in the skin.

## INTRODUCTION

Hyperpigmentation (age spots) is a problem of particular cosmetic concern in Asia. Efficient, long-term depigmentation has been challenging the cosmetic research for years. Previous studies have shown that topical cream or gel applications could reduce melanin in the skin [1,2]. Estime®-IBS is a new dietary supplement effective in improving photo-damaged skin. As hyperpigmentation is an important sign of the photo-ageing process, this study was initiated to explore the supplement's depigmentation effects.

## RESULTS

A 3-month double-blind placebo-controlled study was performed on 38 female volunteers (19 test / 19 placebo), taking one capsule of the product daily. Measurements were made on volar forearms using a MX 18® MPA Mexameter (Courage & Khazaka, [3,4]). Four melanin index assessments were performed (baseline/ 1 month/2 months/3 months). After 3 months (D84), the reduction of melanin index in the test group was very significant: 15% (p=0.0001). The one-month (D28) and two-month (D56) results also showed significant reductions in the test group: 7% (p=0.0002) and 15% (p=0.0001), respectively. In the placebo group the reduction was of 5% (D28), 10% (D56) and 5% (D84). See table 1 and fig. 1.

|  | Melanin index (median values, in Mexameter units) |         |          |          |
|--|---|---------|----------|----------|
|  | Baseline  | 1 month | 2 months | 3 months |
| Test group   | 131   | 122     | 111      | 112      |
| Placebo group  | 152   | 145     | 137      | 144      |
| Reduction differences relative to baseline (%)         |   |         |          |          |
| Test group   | 0   | -6.8    | -15.3    | -14.5    |
| Placebo group  | 0   | -4.6    | -9.9     | -5.3     |
| Reduction differences test group vs. placebo group (%) |   |         |          |          |
| Test group   | 0   | 33      | 35       | 63       |

Table 1 – Comparative test/placebo evolution of melanin index on volar forearms. All results are statistically significant.

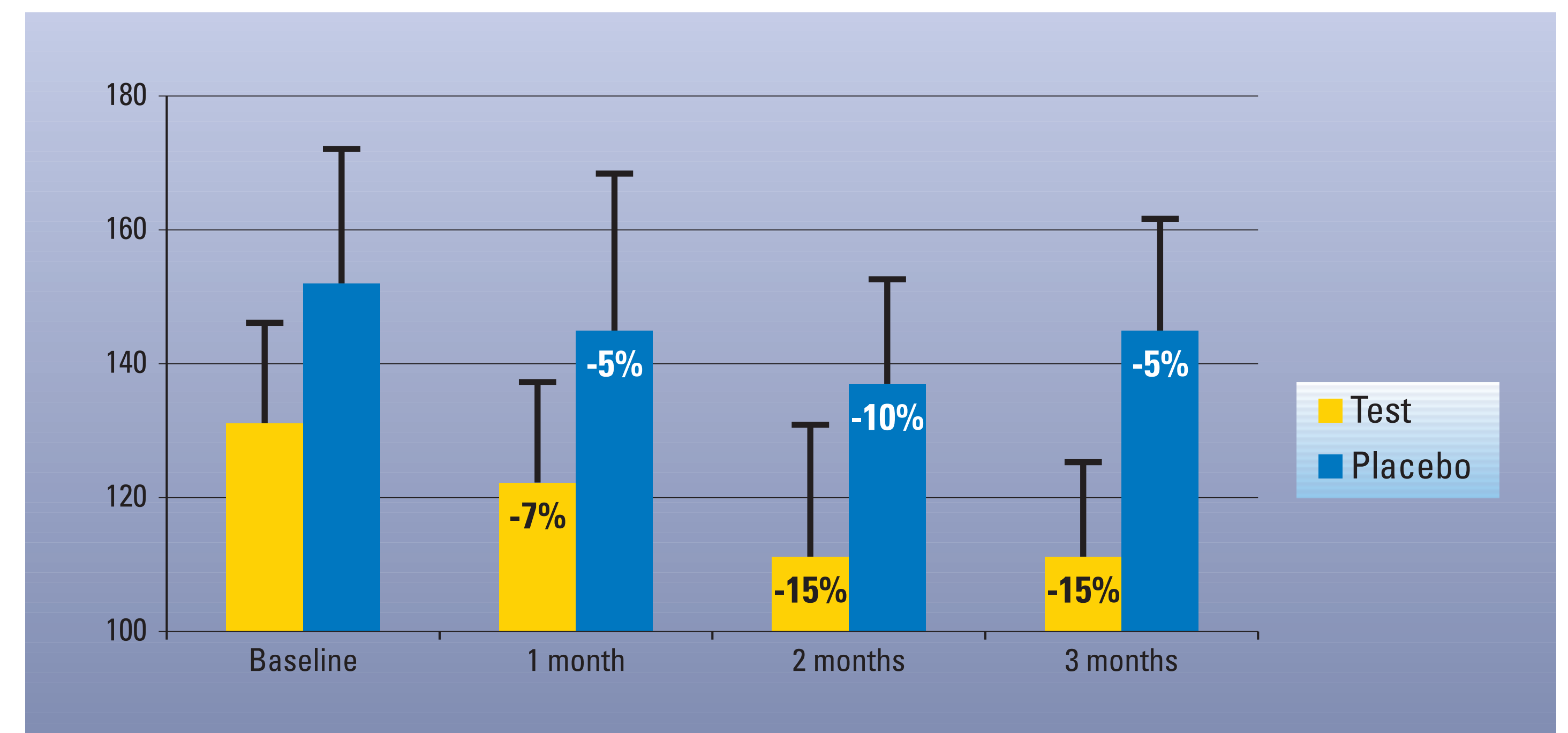


Figure 1 – Comparative test/placebo evolution of melanin index on volar forearms. Data from table 1.

## DISCUSSION

A significant reduction in skin melanin was measured in 90% of the test group after having used Estime®-IBS for only one month. The exact mechanism of action is not known, but it appears that the presence of Cellubiol®, a complex of various photo-protective phytonutrients, may act as an internal cell shield, protecting the cells from excessive UV light. The combined effects of ingredients in the supplement seem to provide sufficient protection of the melanocytes from inside, reducing the requirement of the functional properties of melanin. As a result, a part of the melanin naturally decreases, and its formation is subsequently reduced.

## CONCLUSIONS

This study showed that the dietary supplement Estime®-IBS could significantly reduce melanin in the skin – an interesting finding which opens new possibilities for the use of dietary supplements in specific skin problems.

## REFERENCES

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