

## Skin hydration

Measuring the effect of mineral oil-based moisturizers on skin barrier function



## Case information

Study: "Investigating the Impact of Mineral Oil-Based Moisturizers on Skin Barrier Function", published in Asian Journal of Pharmacy and Pharmacology.

This study aimed to evaluate the effect of mineral oil in various moisturizers on normal skin's barrier function, focusing on hydration and transepidermal water loss (TEWL).

### Solution and method

The study involved 15 female volunteers, aged 20-25, who were divided into three groups, each using a different brand of mineral oil-based moisturizer. Each volunteer applied the assigned moisturizer to one volar forearm twice daily for 3 weeks, while the other forearm served as an untreated control.

Measurements of TEWL and skin hydration were taken before the study began, and after 3 weeks, using the DermaLab Combo device. This device ensures precise and reliable assessments by measuring both TEWL and skin hydration.

### Results and conclusions

By use of the Hydration Pin Probe the study found that all tested moisturizers increased skin hydration, despite a rise in TEWL. The study concluded that while mineral oil-based moisturizers did not reduce TEWL as expected, they were effective in improving skin hydration.

Read the full article:

*Investigating the Impact of Mineral Oil-Based Moisturizers on Skin Barrier Function.*

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## BENEFITS of the DermaLab Combo

### Comprehensive measurements:

In the case study the DermaLab Combo provided a dual approach by accurately measuring both skin hydration and transepidermal water loss (TEWL), which was essential for evaluating the performance of different moisturizers.

### Reliable and consistent data:

The device ensured the collection of consistent and precise data throughout the study, allowing for a robust assessment of each product's impact on skin barrier function.

### Versatility:

By combining hydration and TEWL measurements, the DermaLab Combo offers a complete view of the skin's barrier function. This versatility makes it an invaluable tool for both dermatological research and cosmetic efficacy studies.



## The Hydration Pin Probe and TEWL Probe

are just two of 11 parameters available for the customizable DermaLab Combo, where up to 9 parameters can be combined in one single device for advanced measurements.

To learn more about our solutions, visit [cortex.dk](http://cortex.dk).



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