

WOUND HEALING: A Novel Formulation for a New Decade

THE MICROBIOME CONNECTION

The association between skin healing and the microbiome has been studied, researched, and established. The skin's epithelial cells are greatly influenced by the human microbiome via their toll-like receptors. The bacteria stimulate these receptors to accelerate the skin healing process. A new biotechnological ingredient that utilizes flagellin from a non-pathogenic flagellated gram-negative bacterium has shown regenerative skin healing properties. This recently discovered connection to the microbiome plays an important role in the new approach to skin healing.¹

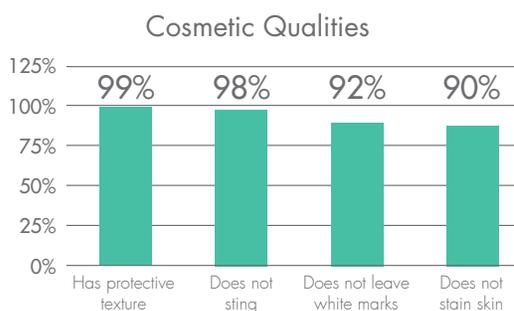
THE COMPOSITION

This novel formulation utilizes the clinically proven wound healing abilities of Aquaphilus Dolomiaae Ferment Filtrate, which is the result of a double centrifuge process of the original bacteria. Formula also includes copper-zinc sulfate complex to promote a healthy environment for optimal skin recovery and thermal spring water for additional soothing and calming properties. The preservative and fragrance-free panel of ingredients, in a water-in-oil emulsion, makes this an ideal option to soothe and repair everyday irritations and superficial wounds.¹

STUDY 1: TOLERANCE & EFFICACY ON ADULTS, CHILDREN, AND INFANTS

In an open, monocentric study with 88 subjects, aged from 3 months to 70 years old, the tolerance and efficacy of the new repair cream was evaluated. The indications included: post-peel irritation, post-KTP laser irritation, post-cryotherapy irritation, irritation generated in adults, irritation in intimate areas of adults, irritation in children and infants, irritation of intimate areas in girls, and rash. Participants applied the repair cream twice daily, and dermatologists, pediatricians or gynecologists evaluated the repairing efficacy and safety at day 1, day 3, day 8 and day 22. Pictures were taken on these days to document the healing process. At the end of the study, a satisfaction questionnaire was given to the patients.

RESULTS



The skin treated with the new repair cream has shown significant re-epithelialization as well as increased skin regeneration. It showed very good skin and gynecological tolerance while feelings of discomfort were soothed immediately after the first application. After just 48 hours post-application, patients noticed 80% reduction in skin discomfort which included: feelings of tightness, tingling and itching. By day 3, physicians noted that the cream was working for 78% of patients, and by day 22, 100% of patients felt some improvement in their condition. More than 90% of the subjects reported that the new repair cream had a protective texture and did not sting, 96% of patients noted rapid skin repair and smoother skin, 90% noted high repair quality, and 89% of patients saw less visible marks.²

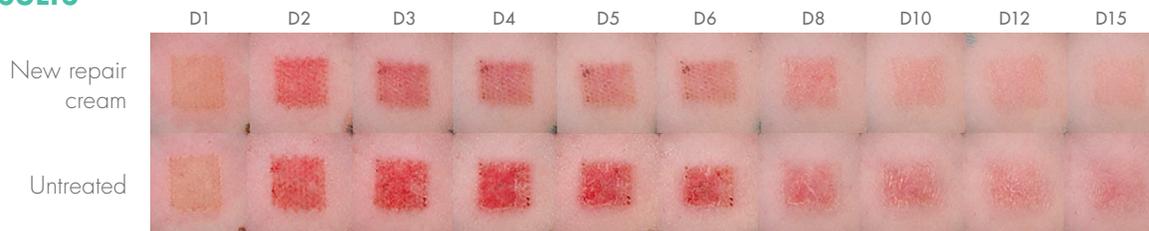
CONCLUSION

The repair cream is safe and effective for all age ranges and can be used for numerous indications from post-treatment irritation to general rashes.² Almost complete unanimous satisfaction was seen among patients regarding efficacy and tolerability.

STUDY 2: TIME TO RESTORE THE NORMAL SKIN BARRIER IS FASTER

A second study with 20 subjects between the ages of 18 and 45 years old was conducted. An Erbium YAG laser was used to inflict skin de-epidermization on the forearm and treatment was applied over twenty-one days.¹ From day 1 to 6, one semi-occlusive application was applied and from day 7 to day 21, two open applications were applied.

RESULTS



The average repair time for skin treated with the new repair cream was 12.65 days versus 16.5 days for the untreated skin. Transepidermal water loss was restored to normal skin barrier in an average of 14.95 days for skin treated with new repair cream versus 16.58 days for the untreated skin.¹

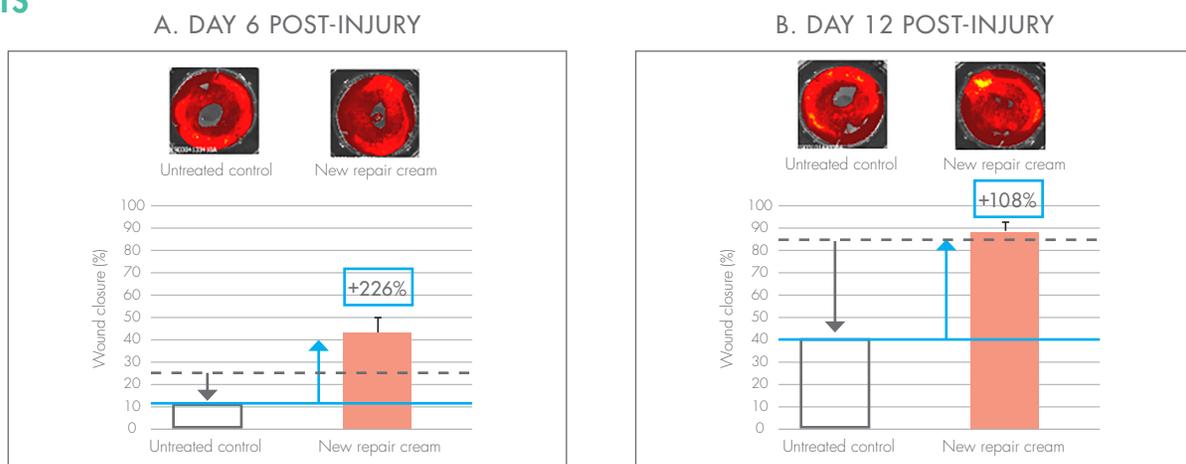
CONCLUSION

When compared to the untreated control, the skin repair time and time to restore normal skin barrier function were shorter with the new repair cream. Overall, the new repair cream demonstrated significantly better efficacy and quality when compared to untreated control.

STUDY 3: SIGNIFICANT EFFECT ON COMPLEX WOUND HEALING

A third study assessed the effect of skin re-epithelialization on glycated, wounded human tissue to simulate a complex wound.¹ The main endpoint of this study was to assess the percent (%) of wound closure when trying to heal a complex wound. The new repair cream was compared to an untreated, stressed control. Treatment with new repair cream was administered on day 0 after the wound was inflicted, day 6 and day 12.

RESULTS



By day 6, the wound treated with new repair cream was 40% closed which was 226% higher than the untreated control. Wound healing with the new repair cream was assessed 4 times faster than if left untreated. By day 12, the wound treated with the repair cream was over 85% closed which was 108% higher than the untreated control.¹

CONCLUSION

This study demonstrated the new repair cream's efficacy on complex wound healing. Not only was recovery quicker, but the percent of wound closure was far greater than the untreated control. The new repair cream significantly stimulates the re-epithelialization of complex wounds.

REFERENCES

¹Data on file at Pierre Fabre Research Institute, 2019. ²Beziat Monteil C, Noizet M, Galliano M-F, Pierre-Fabre Dermo-Cosmétique, Toulouse, France.