

## Allpresan® pedicare 3 Original Foam Cream reduces the occurrence of various pathogens on the skin

An important function of our skin is the protection against penetration by harmful substances and germs. This natural protective function is only effective if the horny layer is intact. Even scratching can impair the barrier function, leading to an increased risk of bacterial and fungal infections [1]. In a double-blind and placebo-controlled study, it could now be shown that application of Allpresan® pedicare 3 Original Foam Cream can reduce the occurrence of various pathogens on the skin. This supports the conclusion that the risk of infection – which is naturally increased when the skin barrier is damaged – can be reduced through application of Allpresan® pedicare 3 Original Foam Cream.

### Formulation adapted to reduce the risk of infection

Allpresan® pedicare 3 Original Foam Cream is tailored to meet the special needs of very dry skin. In an adaptation of the formulation with the aim of providing additional support for the skin's own protective function, ingredients that are specifically tailored to this purpose were integrated into the formulation. Studies performed subsequent to this adaptation of the formulation showed that besides the familiar care and moisturizing effects, the occurrence of various pathogenic germs on the surface of the skin is significantly reduced when Allpresan® pedicare 3 Original Foam Cream is applied.

### Study design

A double-blind, placebo-controlled study examined the influence of Allpresan® pedicare 3 Original Foam Cream on the occurrence of various pathogens. In order to cover the broadest possible spectrum of pathogenic germs, *Staphylococcus aureus* (*S. aureus*) as a representative of gram-positive bacteria, *Pseudomonas aeruginosa* (*P. aeruginosa*) as a representative of gram-negative bacteria, and also *Candida albicans* (*C. albicans*) as a representative of fungi were included in the study. The tests were carried out on a porcine skin model. In accordance with the study design, the skin was initially creamed with the verum or placebo foam cream and samples that were infected with the corresponding pathogen were subsequently cut away. These samples were incubated and the areas with the pathogen were then analyzed using special software.

The positive control was supplied by samples infected with the corresponding pathogen that had not been creamed, neither with the placebo foam cream nor with Allpresan® pedicare 3 Original Foam Cream (spontaneous occurrence). The negative control was supplied by samples that were not infected with pathogens and

had not been creamed, neither with the placebo foam cream nor with Allpresan® pedicare 3 Original Foam Cream (untreated control).-

### Why positive control?

The positive control shows the spontaneous occurrence of the corresponding pathogen in the specified conditions. It marks the upper limit of pathogen occurrence and gives information on the effects of the foam cream on the occurrence of the corresponding pathogen. If the positive control is exceeded, then this supplies evidence of the growth-enhancing effects of the preparation being studied.

### Why negative control?

The negative control represents the untreated control that is not infected. It marks the lower limit of pathogen occurrence and is therefore the second point of reference when evaluating the effects of the preparation being studied on the occurrence of the corresponding pathogen. The negative control indicates whether a basic infection is present.

### Why placebo-controlled?

The placebo control enables statements to be made on the actual effectiveness of the preparations being studied.

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Influence of various foam creams on the occurrence of *S. aureus*

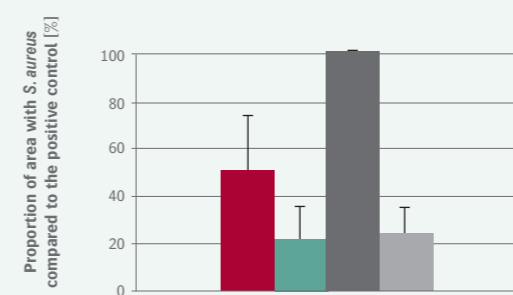


Fig. 1: Influence of various foam creams on the occurrence of *S. aureus* on the surface of the skin. Using Allpresan® pedicare 3 Original Foam Cream reduces the occurrence of *S. aureus* significantly in comparison to the positive control (spontaneous occurrence).

Influence of various foam creams on the occurrence of *C. albicans*

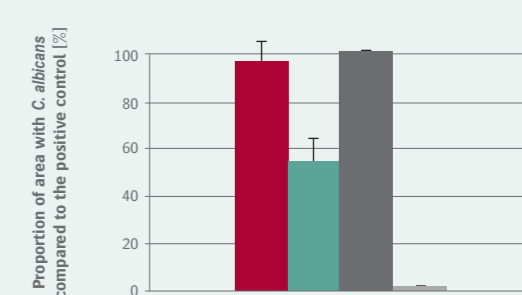


Fig. 2: Influence of various foam creams on the occurrence of *C. albicans* on the surface of the skin. Using Allpresan® pedicare 3 Original Foam Cream reduces the occurrence of *C. albicans* significantly in comparison to the positive control (spontaneous occurrence) and also in comparison to the placebo foam cream.

Positive control = spontaneous pathogen occurrence, i.e. the samples were infected with the corresponding pathogen and not creamed, using neither Allpresan® pedicare 3 Original Foam Cream nor the placebo foam cream.

Negative control = untreated and non-infected samples, i.e. the samples were neither infected with a pathogen nor creamed with a foam cream.

■ Placebo ■ Allpresan® pedicare 3 Original Foam Cream ■ Positive control ■ Negative control

### Results

Allpresan® pedicare 3 Original Foam Cream influences the occurrence of *S. aureus*, producing a significant reduction. The proportion of the area with *S. aureus* was reduced to 21 % compared to the spontaneous occurrence in the positive control following application of Allpresan® pedicare 3 Original Foam Cream. The placebo foam cream did not influence the occurrence of *S. aureus* on the surface of the skin, and did not produce any significant reduction (Fig. 1).

Allpresan® pedicare 3 Original Foam Cream does not have any influence on the occurrence of the gram-negative bacterium *P. aeruginosa* (data not illustrated).

The occurrence of *C. albicans* can be significantly reduced by Allpresan® pedicare 3 Original Foam Cream. The proportion of the area with *C. albicans* was reduced to 54 % compared to the spontaneous occurrence in the positive control. The placebo foam cream did not influence the occurrence of *C. albicans* (Fig. 2).

### Summary

The results of this study show that Allpresan® pedicare 3 Original Foam Cream can reduce the occurrence of two relevant skin germs.

In consideration of the increased risk of infection prevailing for very dry, chapped skin, the findings gained here illustrate the huge added value offered by Allpresan® pedicare 3 Original Foam Cream for people with very dry skin. In addition to the reduction of the pathogen occurrence, rich ingredients lead to rapid improvement in the skin condition and skin moisture. The skin becomes more supple and smooth, and the surface of the skin is smoothened.



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[1] Fritsch P. (1998): Dermatology & Venereology: textbook and atlas. Infection diseases of the skin. 223-333