

Abstract

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## Skincare effect of hand disinfection – an opportunity for compliance

Good hand hygiene compliance is the most effective protection against nosocomial infection. Alcohol-based hand disinfectants are considered state of the art here. And still old prejudices are tenacious: users often wonder if frequent hand disinfection with alcohol-based rubs may dry the skin. Meanwhile many studies have confirmed the generally good skin tolerability of alcohol-based hand disinfectants.

And just recently, a study by the BODE SCIENCE CENTER showed that alcohol-based hand disinfection may not only be gentle on the skin, but even have a skincare effect. Subject of the study was Sterillium classic pure which was examined for its moisturising properties and the associated skincare effect.

Before the actual study, in order to establish similar skin conditions, all 29 test subjects underwent a preparatory period of one week. During this preparation and the actual study, the participants were only allowed to wash their hands with the soap provided and were not allowed to use any skincare products.

For 10 days, 10 times per day 3 ml of Sterillium classic pure\* were applied to one hand of the test subjects. As with hygienic hand disinfection the exposure time was 30 seconds. To simulate the intensive application in clinical routine, every test subject applied the hand disinfectant 300 times. The second hand remained untreated and served as control.

Measurements included skin hydration and skin elasticity. The objective assessment of the skin tolerability was done by measuring skin dryness and inflammatory skin changes. In addition, the test subjects were asked how they subjectively perceived the skin tolerability.



Research for  
infection protection

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After ten days of application, the increased corneometer values showed that, on all study days, the intensive application of Sterillium classic pure had resulted in a considerably improved skin hydration compared to the untreated hand: at the end of the first test week, the skin moisture was significantly increased by 30.39 % and even by 39.33 % on the eighth day. The average improvement of skin hydration was around 30 %. Also the test persons' subjective perception reflected these results: the skin dryness declined at all time points compared to the baseline value.

The study results prove that alcohol-based hand disinfection with Sterillium classic pure is not only skin friendly but also has a skincare effect.

\* Except for the colourants and fragrances, Sterillium classic pure and Sterillium have the same composition. Hence, the results of the study can be fully applied to Sterillium.