

# "Acne caused by too many different moisturizing factors in creams?"

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**M**oisturizing factors in cosmetic products mostly relate to the NMF (natural moisturizing factor) components. The NMF consists of different substance groups like amino acids as e.g. glycine, serine, alanine, asparagine, ornithine, citrulline, proline, acids like pyroglutamic acid, lactic acid, urocanic acid, citric acid, inorganic salts like chlorides and phosphates of the alkaline and alkaline earth metals, urea and glycerin. All these substances maintain the osmotic balance in the skin. In cosmetic products only some substances are used and besides the NMF also substances like propylene glycol, butylene glycol, pentylene glycol and sorbitol (sugar substitute) with a comparable but slightly reduced effect are applied.

A fat and moist skin which generally develops in the adolescence phase and which is the base for youth acne, does not require any moisturizing substances, rather on the contrary. In this case it is important to focus on a reduction of sebum lipids and the related increase of transepidermal water loss (TEWL) in order to avoid the moist conditions where the propioni acne bacteria may thrive. Nitrogenous compounds like amino acids additionally provide an ideal breeding ground. Slightly different are polyhydric alcohols like glycol and glycerin: just like the volatile ethyl alcohol they also show antiseptic effects in higher concentrations.

Conclusion: NMF substances should be avoided on fat and moist skin susceptible for acne. This however does not apply for normal and dry skin as acne is not caused by surplus NMFs here. On the contrary: experience shows that an increased moisture loss on the skin surface usually leads to inclusions like sebum cysts and closed comedones which may aggravate an acne condition.

Finally, it should be mentioned, that any excess skin care i.e. by high dosages of cosmetic substances like lipids, emulsifiers and active agents will involve all kinds of undesired reactions.

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