

# Protect your skin too

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Besides all the efforts of caring for the skin of the clients, the skin protection of the cosmeticians should not be neglected. Day in, day out, the cosmetician gets into contact with the products she uses for the treatments. High-quality products are useful which also protect the skin of the cosmetician.

**W**hich of the cosmetic components are reasonable for the clients and which components should be avoided? Focus of interest here is the strain on the skin caused by preservatives and other additives, which have nothing to do with skin care. They are only added to guarantee stability for the transport, storage and the application later on when the jar is opened.

## Daily strain on the skin

Mostly neglected is the fact, that the strain is closely connected with the frequency of the application. It is obvious, that above all, employees of beauty institutes particularly often come in contact with the products they work with. Considering also the hair care products, the employees of hairdresser's shops have to deal with the same issue, day in, day out.

On the one hand, the intense strains on the skin of the cosmetician is partly due to the daily contact stress, connected with the mechanical energy applied during the treatment of the clients, and partly due to frequent washing. This is the reason for a particularly intense exchange respectively a high washout-effect of skin-own protective substances.

Moreover, the skin care products used in the beauty institute may possibly contain harmful components which may penetrate deeply into the skin and in case of an appropriate predisposition they may cause skin reactions in the long run. According to a survey of 3,000 cases of occupational dermatosis, carried out by the Bavarian State Institute for Work Medicine in co-operation with the Dermatological University Hospital Erlangen, it was observed that already two thirds of the cases fall in the following professional groups: hairdressers (22 %), metal workers (19 %), health care and nursing (10 %), food crafts (9 %), and construction (6 %) (TW Dermatologie 25 (2), 1995).

## New legal standard

These figures show that skin protection is a major issue for cosmeticians and hairdressers regarding their occupation. In this context, it is also recommended to read the new technical regulations "TRGS 531 – Risks of skin disorders caused by working in humid conditions" and "TRGS 540 – Sensitizing Substances". These regulations are published by the Federal Minister for Work and Social Affairs.

Because of their activity, cosmeticians can hardly use skin protection ointments. Just imagine the absurd situation that the cosmetician protects her skin with skin care ointments against the skin care products she uses for her clients. This definitely is impossible but what can they do instead?

## Requirements for skin care products

It is very important to pay attention to the quality of the products! According to the state-of-the-art today, a high-quality skin care product shows the following features:

- It protects the skin against environmental influences
- It complements the skin-own substances with skin-related substances
- It preserves the barrier-active lipid bilayers of the horny layer
- It preserves and supports the self-regenerating energy of the skin
- It is free of irritants and sensitizing substances
- It minimizes the washout of skin-own substances during skin cleansing.

In addition to that, further criteria can be mentioned which influence the client's acceptance, like e.g. easy spreading, fast penetration, pleasant feeling (not greasing) and being free of fragrances.

Exactly these are the criteria which also apply for a good skin protection. As a result and provided that the criteria are observed, it can be concluded that the skin care for the client

should also be a skin protection for the cosmetician.

Now, how does the cosmetician find the high-quality products for her clients and for herself too? A first aid measure may be the INCI declaration and she should ask the manufacturer for a detailed explanation. Besides, it is important to know the functions of the different components in the preparation. If the skin protection is the focus of attention, the following substance groups should be avoided in the preparation:

- preservatives
- fragrances
- mineral oil products
- emulsifiers like e.g. ethoxilate
- dyes
- amines

Just as important it is to know which substances are undesirable, it is essential to identify the substances which are indispensable. As a guiding principle may be taken the substance groups which can naturally be found in a healthy and intact skin:

- triglycerides (medium-chained)
- sterols, including squalane or squalene (resistant to oxidation)
- ceramides and/or phosphatidylcholine
- long-chained organic fatty acids, as far as they are not already combined in phosphatidylcholine.

Apropos phosphatidylcholine: Liposomes and nanoparticles have been known for quite some time. Lately, a really multifunctional substance has crystallized out, the saturated phosphatidylcholine (PC-H). Regarding the skin protection it has ceramide-like properties, i.e. it has barrier-active effects. It is able to integrate watery and fat-like substances into the skin without the disadvantages of conventional emulsifiers. As it adheres to the keratin of the skin, it only has a minimal wash-out effect when the skin is cleansed. This means, that the transepidermal water loss (TEWL) also is stabilized when exogenous substances, where also and above all water belongs to, affect the skin. Occlusive conditions are avoided here which means that the skin may "breathe".

Among others, PC-H is a main component of the so-called DMS-base creams (DMS = Derma Membrane Structure). Regarding their composition, DMS-base creams meet the above mentioned criteria. They are called base creams as they are integral skin care creams and may be enriched with further active agents in the beauty institute. Consequently, additives which are frequently used to stabilize the active agents can be avoided as they only unnecessarily stress the skin. By the way, DMS-base creams respectively their compo-

nents also are successfully used in new occupational skin care products.

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