# Reddened Skin - what may cause the symptom?

# published in Kosmetik International 2005 (8), 34-36

Everyone cares for even skin as it is a symbol for health and cleanness. It's quite a nuisance when red spots appear and even more annoying if their cause is unknown. The following information provides some assistance to detect the causes.

t's particularly the head and hand areas where reddened skin attracts attention as the other body parts are mostly covered by clothing. Temporary redness is a sign for increased circulation of the skin and generally caused by excitement, physical strain or external temperature influence.

Flush is a very spontaneous and intense redness together with a distinct rise of temperature and occasionally accompanied by extensive perspiration. Among others, flushes may be side effects of certain medical therapies, changes in the hormonal balance as e.g. during the climacteric, and mental unrest. An increased body temperature like fever may also cause the skin to glow. Of course, reddened skin may also be a consequence of cosmetic treatments as e.g. after peelings, massages, masks or micro dermabrasions. In these cases, the circulation will be increased and the stratum corneum thinned out (peeling) which then becomes more transparent. These effects are intended though and will soon disappear again.

Beyond that, the cosmetician has a broad variety of successful procedures to effectively calm the skin. Among these are active agents with vitamin K, extracts of chamomile, butcher's broom, algae, marigold and hamamelis as well as cooling compresses. She carefully selects the active agent depending on the treatment before and the respective type of skin.

In case the redness still persists or even increases after the end of the treatment, intolerance in form of irritated skin or an allergic reaction has to be considered. Detective instinct is necessary here to track down the specific product component.

# Cosmetic substances as triggers

It is recommended to regularly ask new customers for any known sensitiveness to certain substances. Sometimes the skin is just stressed by the various skin care products applied and the respective dosage which means that the treatment has been overdone. A harmless physical effect may occur at home when skin care products are more often applied than the recommended one or two applications per day with the consequence that e.g. the components of the O/W creams concentrate on the skin. High concentrations of water soluble substances may cause temporary skin irritation and redness which however quickly disappears after treating the specific skin areas with lukewarm water.

An overdose reaction may also occur after extensive use of vitamin A products. In case of excessive application, the agent accumulates on the skin and may individually exceed the threshold concentration which leads to skin irritations. By the way: Asian skin is more likely to develop sensitive reactions than European skin.

# Specific causes

Customers already showing skin redness symptoms when entering the beauty institute are a specific challenge for the cosmetician. Frequent cases as well as a possible cosmetic therapy which may accompany the dermatological treatment will be discussed in the following.

Red skin as a result of sun exposure may effectively be treated with a combination of liposomal concentrate which is rich in linoleic acid and contains moisturizing substances (NMF), and aqueous echinacea extract. Depending on the skin condition aloe and Dpanthenol additives may also be appropriate. We know from experience that already a few hours later, a visible decline of intensity can be observed. Later on a light base cream with skin identical or skin related membrane substances may be very helpful. Traumatic as well as treatment-induced **purpura** as e.g. after laser or plastic surgery may be cured with vitamin K containing products. This also applies for dark eve circles caused by weak condition of the surface capillary system of the skin. In the cosmetic field mostly the vegetable vitamin K<sub>1</sub> is used in form of active agents or ampoules. It stabilizes the near-surface blood vessels and thus actively reduces the redness. In case of couperosis skin with damaged minor blood vessels, echinacea extract or alternatively vitamin K₁ have proved successful above all, if the vitamin is dissolved in nanoparticles and used in combination with a membrane containing cream. Creams with natural pigments may also be helpful as they immediately improve the optical appearance and, because of their content of active substances they are effective below the surface layer. The typical red lines of couperosis may be concealed with products containing green pigments. Couperosis skin is very sensitive particularly if it results from inadequate skin care or insufficient cold protection. A sparing use of irritant free skin care and cleansing products is recommended here. Rosacea which is mostly due to a genetic disposition with symptoms of inflammatory dermatitis with teleangiectases generally develops its first signs on women between 40 and 50, and may be successfully treated with vitamin K containing creams. As the skin is extremely pervious and very sensitive it is best to select skin care products which are free of perfumes and preservatives. Just like for other problem skins, it is recommended to apply membrane containing base creams which are free of emulsifiers as they also may cause irritations. Depending on the specific case additives of liposomes and evening primrose oil may be helpful as they support the skin with essential fatty acids.

#### And if there is itching as well...

Neurodermatitis is a typical barrier disorder accompanied by erythema and itching. In this case, also a non-irritant base cream with a high lipid content and evening primrose oil can be applied. Adequate skin care components are also additives of CM-glucan which develops an anti-inflammatory surface film, and urea which stabilizes the moisture balance and stops the itching. Further significant ingredients are barrier components like ceramides and phosphatidylcholine. A long term moderate application of phosphatidylcholine supports the formation of ceramide I in the skin.

It is recommended to pre-treat minor **inflam-matory skin lesions** with a D-panthenol containing concentrate possibly even combined with hamamelis extract in case of a required astringent effect. In this specific case creams should be non-occlusive in order to avoid a retarded healing process. Natural lipid

and moisturizing substances help prevent tight and chapped skin.

If the **efflorescences** in acne vulgaris cases are caused by cornification disorders at the exits of the sebaceous glands, a treatment with liposome concentrates particularly for oily skin will proof very effective. Within a period of about 4 weeks the efflorescences will be reduced by about 70 per cent. In this case, additional skin care creams should be applied very moderately.

# **Dermatological treatment**

Diagnosing the specific cause of the efflorescence frequently is a quite difficult task for the cosmetician. In cases where a dermatological therapy might be indicated the cosmetician should refrain from a treatment. On the other hand an appropriate skin care treatment may as well save a visit at the dermatologist. An adequate care of the sensitive skin for example prevents the sensation of tight and itching skin from the beginning. With the appropriate care the skin is better protected against environmental influences. Irritations and allergies induced by chemical substances are less frequent and infections due to microorganisms like fungi and bacteria are less likely to occur. Regarding the sensitive skin, efflorescences may already be prevented by a change of products towards an individually more appropriate cleansing product or an adequate body lotion after bathing.

#### Eczema & Co

Frequent washing and showering of skin with particular disposition may lead to **exsiccation eczema** which still is intensified by products containing aggressive detergents like e.g. lauryl sulfate (foaming products). The skin is constantly degreased, dehydrated, becomes reddish and starts to chap. In these cases it is recommended to reduce the cleansing frequency and to temporarily avoid all the products containing detergents. Creams rich in lipids should be used for the care of the skin and mineral oil free oleogels as well as oil baths without emulsifiers will support the regeneration of the skin barrier.

#### Chronically irritated skin

A constant irritation due to contact with environmental substances may result in the so-called **irritative contact dermatitis** and an excellent example here is diaper dermatitis.

A long-term influence of noxious substances and above all their combination with water may

lead to a **wear-and-tear dermatitis** and an example here are the so-called housewives eczema. Also cosmeticians may be confronted with this symptom. Barrier lotions in form of lipid-enriched nanoparticles, base creams without emulsifiers and water-free oleogels protect the skin barrier and optimally support its regeneration.

Allergic contact eczema develops after immunological reaction of the body against external allergens. The triggering substance has to be found here and eliminated. In this case cosmetics can only be helpful if they provide the best skin protection possible which means that a penetration of the allergen from outside has to be prevented. As a rule, it can be said that if the skin moistness can easily evaporate through the surface, foreign substances may just as easily penetrate into the skin on the opposite way.

**Seborrhoic eczema** develops in case of hyperactive sebaceous glands resulting in scales and colonies of microorganisms. Besides the dermatological treatment with antibiotics or specific antimycotics, pure liposome concentrates (see also acne) may be helpful as they suppress the excessive sebum production of oily skin.

# **Further causes**

Reddened skin and possible irritations may also be attributed to **nutrition** or **medication**. Triggering cause may also be rheumatic diseases, infections, cancerous diseases and many others more. In this connection **perioral dermatitis** should also be mentioned which mostly affects young women around 30. It may be caused by skin care products and mechanical irritations.

Close observation, dermatological expertise, cosmetic experience and excellent connections to a dermatologist are very useful tools here.

Dr. Hans Lautenschläger