

# Mixed skin - a skin with two different faces

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In the daily practice frequently questions come up regarding the appropriate cosmetic treatment. Mixed skin: What does it actually mean? How can we receive adequate measuring results and what is the best care - all these questions are answered in the following.

**A** comprehensive diagnosis of the skin is the most important precondition for a successful treatment and care of mixed skin. Products which are most appropriate for a certain skin condition may cause irritations and impure skin in the other case. Each type of skin has its own specific needs.

## Skin condition

Defining the normal skin condition seems quite easy at first glance. It is not too moist, not too dry, and the lipid content should be neither low nor high. Most ideal characteristics which are predestined by hereditary disposition. In reality however is not that easy. The skin condition is influenced by a series of additional factors among which the climate or microclimate play a significant role. Asian skin showing a normal complexion at 30° C and a humidity factor of 90 percent may be completely dehydrated after several hours in an air-conditioned environment of 22° Celsius and 30 percent humidity. Similar changes may be observed for our skin if the inside and outside humidity and temperature conditions are different, a fact which typically occurs in the cold season. Furthermore, eating and drinking habits, cleaning routines and skin care altogether play an important role. This can easily be explained with the fact that today dry skin is more frequently observed than it was 50 years ago. And last but not least our skin undergoes a modification process starting from baby age via teenager up to the mature and elderly skin. During this process changes of the diameter, permeability and composition of the skin can be noticed which are controlled by hormones and other regulatory mechanisms of the human body.

Skin condition diagnoses like oily/moist, oily/dry, dry/low-fat, low-fat/moist skin should always be made in relation to the respective surrounding conditions.

## T-Zone & co.

The skin condition of an individual person varies over the whole body as for instance it

also depends on the skin diameter. Hairy body zones have different features from hairless parts. Sweat and sebum glands as well as the circulatory system are not evenly spread. Extremities differ from trunk and rump parts. Especially the facial skin is important. It is in the focus of attention as it is seen as a signboard for the individual personality. Already minor differences will attract attention. It is specifically eye-catching if the t-zone, i.e. forehead, nose and chin parts are oily and moist whereas the cheeks have a rather "normal" or even dry and low-fat appearance, particularly in the areas around eyes or mouth. For quite some time now this condition has been known as "mixed skin". Seen from the viewpoint of skin diagnosis these differences can also be observed on normal skin, however they are less developed.

## Objective measuring

This can be explained with the help of two simple measurements i.e. the skin moisture and sebum. They may easily be carried out with the corneometer (skin moistness) and sebometer (sebum) and both of them together will not even take longer than half a minute. As a rule it can be said that there are differences between t-zone and the other skin parts for every type of skin whereas the differences may be more or less distinct. These measurements show that the diagnosis "mixed skin" may turn out very subjective, comparing the readings with the personal impression.

A comparison of the readings may also be very interesting when taken approximately 2 hours after a skin cleansing without a new application of skin care products and approx. 2 hours after applying skin care products. Depending on the composition of the skin care products the t-zone may be specifically noticeable if they contain lipid substances which only slowly or even will not penetrate into the skin at all. Frequently the person involved also realises an oily shine of the surface lipid substances.

## **Skin care substances**

It is a fact that due to the increased sebum flow lipid substances only slowly penetrate the skin along the t-zone. Regarding the appropriate skin care it can be concluded that, among others the lipid substances should be selected according to their penetrability. For a person without professional background in chemistry this may be quite demanding though. There is however a general rule which says that natural lipid substances in form of triglycerides will penetrate easier than indifferent hydrocarbons like mineral oil and waxes, and low-molecular and unsaturated faster than high-molecular and saturated ones. Furthermore, triglycerides provide the advantage of a perfect adaptation to the physiology of the skin as well as the partial degradability to diglycerides, monoglycerides as well as glycerin and fatty acids. This however does not apply for mineral oils, solid paraffin and silicones. These substances keep their specific structure.

## **The appropriate treatment**

It goes without saying that the products should only be sparsely applied on the t-zone. The additional use of a talcum-free powder may be helpful as it not only absorbs surplus lipids but in case of an appropriate composition also diffusely scatters the light reflection in different directions and thus avoids any glistening effects.

As a further possible treatment it is suggested to use different products for t-zone and the other facial areas. In case of an increased sebum flow it is recommended to use liposomal concentrates which cause slight sebum suppression in the skin. Put into practice this means that after the t-zone has been treated with a liposomal concentrate, an additional skin care product will then be applied on the entire face. This product should be free of emulsifiers and preservatives so that the effects of the liposomes will not be impaired and that problems due to any infiltrated preservatives can be avoided. If necessary the additional treatment around the t-zone may even be avoided or a low-fat or even non-fat gel may be applied on the entire facial skin.

For cleansing purposes it is important to know that a frequent degreasing will even intensify the sebum production. As NMF substances (natural moisturizing factor) are removed with every cleansing, the skin could become dehydrated in extreme cases. It is then recommended to treat the skin with NMF containing liposomes.

## **Hormonal influences**

Due to the hormonal changes in the menopause the sebum production frequently is reduced and the former oily areas become less dominant. A specific treatment is no longer necessary then as the normal to dry and low-fat skin condition may prevail.

For the dry and low-fat skin, skin care creams with appropriate lipid content and moisturizing substances are recommended.

## **Adjusting the treatment**

In general, the mixed skin is rather categorised along with a normal skin condition, and therefore it is paid less attention in dermatological practice than in the beauty institute. Besides the original mixed skin conditions however, in both the disciplines frequently cases with partial skin disorders like e.g. acne and couperosis can be observed. These cases can be treated as mentioned above. The combination of an appropriate active agent concentrate and a skin care cream or lotion generally has turned out as the best possible solution. It should also be mentioned that the selection of make-ups and tinted day creams belongs to the potential instruments of the beauty institute to optically balance different parts of the skin. Regarding their composition however they should be adapted to the previously applied skin care in order to avoid counterproductive effects.

## **NMF-balance**

A marked condition of oily and moist skin is called seborrhoe oleosa whereas of the oily and dry skin it is seborrhoe sicca. In case of seborrhoe sicca the skin will not develop intense glistening if the sebum is largely absorbed due to the modified structure of the horny layer. Regarding the selection of NMF substances here, specific emphasis should be laid on amino acids and urea. Liposomes help to intensify the penetration and thus serve as active agents in two ways. Due to the phosphatidylcholine contained they reduce the sebum flow and modulate the increased cornification which actually caused the condition.

Concluding, a few words should be added regarding the low-fat and moist skin which is rather an exception and mostly occurs only temporarily and is frequently due to a humid and hot environment. Changing to an environment with lower humidity, there will mostly follow a dry and low-fat skin condition as the transepidermal water loss (TEWL) due to the insufficient lipid coating increases and

the NMF of the skin will not be high enough to retain sufficient water.

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