

Clever combinations – the effective and sustainable anti-aging treatment

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It is a basic need for many individuals to retard the visible aging symptoms. That is why so-called “miracle agents” are booming as never seen before. Main focus is on achieving apparent effects in no time. However, anti-aging measures should supplement each other and have sustainable effects.

Cosmetic active agents only are part of the strategy to handle the signs of aging on the skin. Nevertheless, they play a major part as they can easily be communicated together with the preparations and also are important pillars of sales. Also the online business takes up a decisive role in this market segment. All the more important it is for practicing cosmeticians to realise how treatments with anti-aging actives and related products can be sustainably optimised through **combination, networking, symbiosis** and **personalisation**, and how they can achieve the competitive edge for the beauty institutes.

With regard to commercial aspects, the term anti-aging active (AA) could be defined as a substance that leads to a more youthful appearance. According to this definition, most of the decorative preparations would fall under this category – including those that conceal problem skins, or in other words, creams that optically remove the signs of erythema in cases of rosacea for example.

For long-lasting effects

Such type of preparations certainly has its right to exist in order to immediately and temporarily solve a problem. In terms of customer benefits however, the preparations should at least be combined with products that sustainably work in the background for a longer time and thus act as a preventive measure to retard the aging of the skin and improve the skin condition. In order to exclude counterproductive effects though, the above-mentioned **combination** requires a good deal of professional knowledge in terms of the substance composition of the cosmetic products. Well-documented active agents can be found among the cosmeceuticals. They are borderline products with pharmaceuticals. Examples here are vitamins which have regenerative and partly anti-inflammatory effects, such as

- vitamin A and its esters,
- vitamin B₃ (niacinamide),

- provitamin B₅ (D-panthenol) as well as
- vitamin E and its esters.

Plus factors of vitamins and sustainable AA-actives are the physiological tolerance and their human biological degradability.

Regenerative, anti-inflammatory and protective active agents make up the anti-aging repertoire. Protective substances are ceramides, phytosterines as well as long-chained fatty acids and their esters – they have preventive qualities. Regenerative and anti-inflammatory active agents are problem solvers, though. They either are administered in the case of atopic skin and enzyme defects, both caused by endogenous impacts, or in the case of exogenous radiation exposure and infections.

UV filters against UV-A and UV-B radiation also are protective components. The antioxidants recommended in this context often are ascribed too much importance. Far more significant for AA preparations is the care of the NMF (Natural Moisturizing Factor) of the skin by administering amino acids as they stabilize the skin hydration and scavenge the atmospheric radicals.

There is little point in applying single AA preparations unless all the other measures are finely tuned. Cleansing of face and body should be done with preparations that contain gentle, non-stressing components. The protective preparations should contain physiologically degradable emulsifiers in order to minimise the “wash-out effect” of barrier components of the skin.

An important viewpoint in the **combination** of regenerative and protective aspects is the use of the same base cream. State of the art preparations today are lamellar creams which have a physical structure similar to the skin barrier. Analogous aspects apply in the beauty institutes when it comes to combine cleansing, mask treatment and completing skin care.

Regenerating and smoothing

The administered regenerative active agents comprise, among others, isoflavones (“phyto-hormones”), vitamin C derivatives, peptides to stimulate the collagen synthesis, as well as N-acetyl-glucosamine, which is a base substance for the hyaluronic acid synthesis. Fast and temporary effects are achieved with hyaluronic acid and spilanhol (from paracress) to reduce wrinkles, kigelia extract to tighten the skin as well as tranexamic acid to stabilize the surface capillaries. Similar to the combination of skin care and regeneration, the same base cream should also be used for the pigment-containing decorative products. The cream should be free of counterproductive preservatives or other potential allergenic components.

Recommended for the skin prone to irritations, erythema and inflammatory reactions are the anti-inflammatory essential fatty acids contained in natural oils such as evening primrose, kiwi or linseed. It is beneficial applying them in the evening since they are sensitive to radiation. In addition to it, protease inhibitors such as boswellic acids (frankincense), 5-lipoxygenase inhibitors, and antibacterial substances such as azelaic acid are administered against anaerobic germs in the case of acne and rosacea.

Networking with dermatologists' offices

Beneficial for the anti-aging treatment are a sound dermatological knowledge and the **net-working** with the offices of dermatologists. It is a fact that prevention is an essential element in the holistic AA strategy. Every indication requires an adapted skin care; the technical term is adjuvant corneotherapy. The base creams used for therapy and prevention correspond to the German Cosmetic Regulation (Kosmetikverordnung – KVO), the German Ordinance on the Operation of Pharmacies (Apothekenbetriebsordnung – ApBetrO) and the European Pharmacopoeia (Ph. Eur.). Examples are lamellar base creams for the therapeutic hormone treatment with oestrogens, the cosmetic skin care with isoflavones (phytohormones) or the acne treatment with vitamin-A acid (therapeutic measure) as well as vitamin A and azelaic acid (cosmetic treatment). Modular systems allow the admixture of pharmaceuticals and cosmetic active agent concentrates into the base creams. The rejuvenating treatment can be optimised by the use of skin probes that allow for a profound skin analysis and the follow-up of the treatment results. The **combination** of preparations with respective devices that accelerate the penetration and permeation of active agents through electromagnetic waves, mechanical energy or direct

heat transfer, essentially reduces the time span between application and the onset of the desired effects.

As already mentioned above, modular cosmetic preparations are the clue for a sustainable anti-aging treatment in which adequate base creams, -gels and -lotions are customised and equipped with the required active agents and in which counterproductive effects are excluded. Even masks can be adapted to the personal needs (**personalisation**) of customers either in the beauty institute or for the skin care at home.

A look ahead

It is presumed that in the distant future also DNA analyses might be incorporated into the process; current results however still are rather vague. Longstanding experience, visual inspection, skin diagnosis, adapted treatment procedures and a well-funded consultation with respect to the products available on the spot are key advantages for customers today to prefer the local beauty institutes to online purchases.

Skin flora – please don't disturb!

The skin flora alias microbiome essentially contributes to a healthy skin and the skin condition in general – including the acid mantle. This **symbiosis** between epidermis and microbiome will be considerably disturbed by the following factors

- excess hygienic measures and too much cosmetic additives, in particular preservatives,
- strong chelating agents such as EDTA (ethylenediaminetetraacetic acid),
- high antioxidant concentrations,
- buffered pH-formulations beyond the natural physiological pH values of the skin.

These factors cause a reduction of the resident germs at the expense of possibly resistant pathogenic germs which is counterproductive.

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