

Can oils save our skin?



Healthy, beautiful skin can be difficult to maintain when we are bombarded with daily elements of hectic lifestyles, and often-unfavourable environments. Sadly it is a fact that our skin, the largest organ, designed to protect from and interact with the environment is subject to the inescapable events of internal and external stressors.

Apart from diet, lifestyle and yes, genes, one of the most effective ways to not only delay the visible ageing process of the skin, but to boost skin radiance, is to protect and maintain a healthy acid mantle (our protective outer layer or skin surface) by maintaining a balanced lubricity and hydration. Ironically, beautiful skin is often the result of a very unglamorous but functional and necessary relationship between sebum and perspiration or water. To deny the skin of natural oils or leach the skin dry is denying the skin of the lipids necessary to restructure, retexture and protect.

Our skin is at optimum levels of functioning when we are balancing the flow of water loss, "Trans Epidermal Water Loss" or TEWL, and the rising and resting of natural oils from our dermis to the acid mantle.

What Do We Look For?

There is no doubt that high performance topical skincare or skincare that helps the skin look after itself, should do more than just sit on the surface of the skin, effectively plumping surface skin cells, affect surface pigmentation or offer "quick fixes" such as temporary tightening. There is indeed value and a place for these types of products, but sadly creams and lotions (for the sake of simplicity they will be called "macroemulsions" - larger particle sizes in comparison to other liquids) are notoriously limited to only really being able to affect the epidermis due to molecular density and poor transdermal penetration. Remember, our skin based on a lipid/oil chemical structure is designed to be selectively absorbent, allowing solubility or penetration of only a very small number of lipo-chemical (oil soluble) constituents.

Nourishing the skin from outside in, with vitamins, botanical extract and other valuable ingredients can only be achieved if the vehicle product or ingredients are trans-dermally absorbent and have a physical effect on the cell membrane or intercellular matrix of the skin. In short, a good anti ageing skincare product should provide optimal active ingredients in a high performance formula with guaranteed bioavailability and efficacy.

One of the problems with hydration of the skin is that as mentioned previously, our skin is designed to eliminate rather than absorb most chemicals whether natural or synthetic. This includes water, which is confined to only achieving very superficial penetration within the epidermis, creating a temporary swelling then evaporating often creating more dehydration than prior to the addition of water in the first place. It is important to note that hydrated skin not only means hydration of the body via ingestion of fluids but also reducing the amount of water that the body including the face, loses to the atmosphere (TEWL). So when one is looking for a skincare product that will perform a multiple of roles, from softening and plumping surface skin cells to delivering skin nutrition trans-dermally, one is looking for a product that is a) molecularly light enough, b) compatible with skin (which is more oil absorbent than water absorbent) and c) provides either or both the ability to infuse the skin with water binding agents (collecting water from the atmosphere and binding it to the skin) or providing a water loss barrier to keep the skin hydrated.

So How Do We Achieve Effective Nutrition And Hydration From Skincare Products?

One of the most misunderstood and possibly mismanaged skin care ingredients of all time is quite possibly one of the most simple, effective and multifunctional of all ...oil. Of course I am not talking about diesel nor am I recommending reaching out for the nearest bottle of peanut oil in the pantry, but the right vitamin, mineral and essential-fatty-acid (EFA) rich vegetable oils in the right synergy can do a lot to provide nutritive penetration and prevent water loss without the "clogging of pores" and congestion we are all so fearful of.

The Microemulsion: The Answer To Penetration & Hydration?

In the context of discussing oils for now let's class oils for skincare in two categories: i) Fixed oils such as the essential fatty acid rich Rosehip, Evening Primrose and my favourite, the miraculous Tamanu Oil, and ii) volatile oils or essential oils. Both contain a myriad of natural chemical constituents, ranging from vitamins and minerals found in fixed vegetables, to the tiny constituents of essential oil molecules. Some research has shown that penetration of these constituents follicularly and dermally, has lead to traces being found in our urine within 48 hours of application. This is possible due to our selectively accepting micro portions of oil soluble materials of the right solvency and molecular structure. The very fact that essential oils exist as highly solvent and volatile, can in some way explain the occurrence of when combined in the right synergy with more dense vegetal oils such as those examples above, it is expected a greater level of skin penetration is possible. In this sense it may be considered that some essential oils could be thought of as absorption enhancers or excipients, perhaps breaking down the molecular structure of the vegetal as part of the metabolic process, and allowing greater nourishment to become available.

The theory of particle size and solvency has lead to the development of a new class of skincare, microemulsions. These types of skincare products are growing in popularity due to their working beyond the limits of creams and lotions (otherwise described as macroemulsions).

The characteristics and benefits of microemulsions can be most typically found in serums, that can be all oil based, or both oil and water, and usually of a light, fine and transparent liquid texture. The main differences between microemulsions and macroemulsions, lies in a) the molecular size of the particles, allowing greater penetration. and b)an increase in the concentration of "actives" made available to the skin.

So how does oil help in hydration? How, if we are increasing penetration of the dermis, do we stop the increase in water loss as a result of potentially negatively affecting the protective outer layers of the

skin? Good question, because going back to the basics of our skin's primarily being designed as a barrier to chemicals getting in, the danger is that we may be disrupting the acid mantle, our "wall of defence" and creating more water loss. Our skin needs an effective barrier of lipids and protein to limit water loss. Therefore applying microemulsions or serum based skincare that includes oil, enhanced penetration due to oil/skin compatibility, and also provides a protective water loss barrier. This is a most effective skincare regime, providing nutrition and preventing dehydration.

Conclusion

I have not even touched on the subject of the nutritional aspects or components of the most valued skincare oils in cosmetics today. Fixed vegetables represent some of the richest sources of vitamins and EFAs that play such a key role in the maintenance and regeneration of collagen and elastin fibres both from inside and out. But we have seen that oils in cosmetics aren't just emollients to help make skin softer. The right oils in the right synergies can in fact enhance the penetration of skincare "actives" and that by providing the skin and our acid mantle with the replenished lipid or oil structure that it needs to keep protected and hydrated, we are more effectively securing a healthy, balanced, skin metabolism... a skin which in part is working much more efficiently and of course economically.

The skin nutrient value in oils would be another interesting topic to cover, including a summary of some of my particular favourites and why they are so beneficial for various skin conditions. However at least for now, perhaps giving our "golden plant oils" a chance to do their restorative work will be a less fearful enterprise with the pleasant surprise of a more healthy, supple and self regulating skin.

Two more things...always apply skincare serums to gently cleansed skin, and always remember to apply sunscreen during the day regardless of whether the product contains warnings or not.

Author: Lisa Phipps, Creator of REMEDICa Australia Oleo Skin Nutritives.

Contact REMEDICa on +61 2 9310 1095

Night Only Anti-Aging Oleo Serums

- **vital.visage** (normal/dry skin, vascular pigmentation)
- **regenerate.visage** (dry/mature skin)

Day/Night Specialist Oleo-Hydrant Serums

- **sensitive.visage** (normal / sensitive skin)
- **clair.visage** (oily / congested, and problem skin)