

Corneotherapy

The future of skincare has arrived

The January issue of Beauty NZ featured an article on Professor Albert Kligman. Kligman is widely regarded as the father of cosmeceuticals, yet he was also well-known for his pioneering work on corneotherapy. Sadly, Kligman passed away in 2010, but the science behind his groundbreaking work is now being carried on by dermaivalduals.

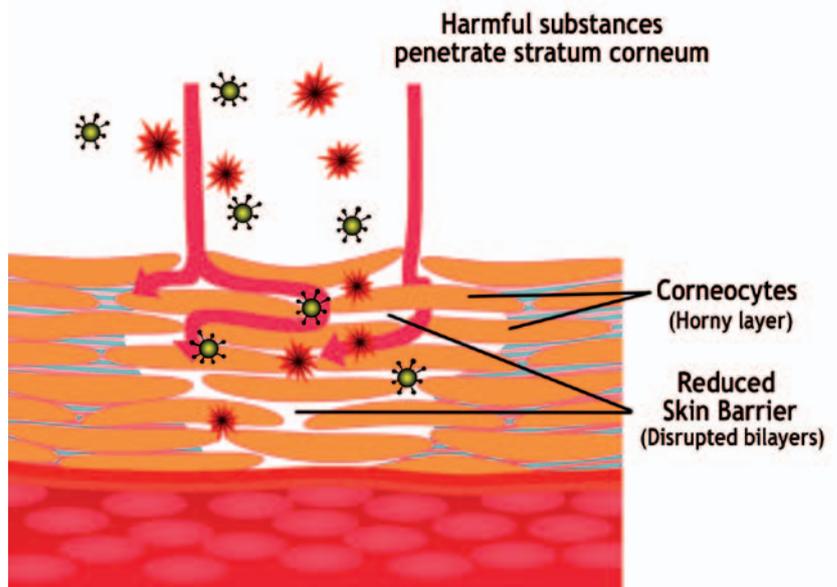
Corneotherapy takes the science of cosmeceuticals one step further. It could be argued that corneotherapy is the skin care concept of the future. It's where science meets beauty. Another way of thinking of it is that it provides the link between dermatology and cosmetics.

An understanding of the role of the stratum corneum is key to the principles of corneotherapy. Essentially skin cannot be corrected if the stratum corneum is not in equilibrium. Many clinicians use treatments on their clients without first ascertaining the level of cellular damage or the condition of the bi-layers of the skin. This can result in expensive, repeat treatments that do not obtain the desired results or may even fail completely.

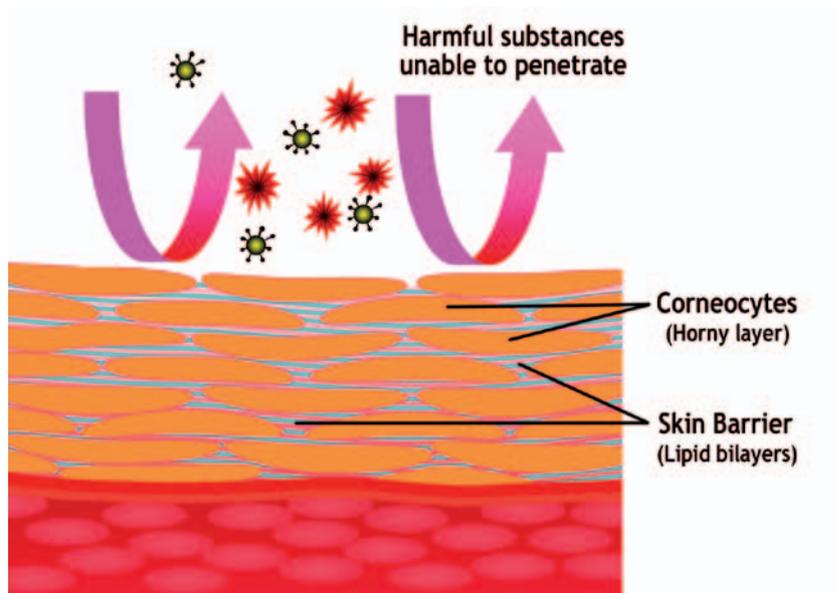
Corneotherapy approaches skin care differently. Before any treatment or

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products are prescribed, a thorough examination of the condition of the bi-layers of the skin is undertaken. It is important during this process not to upset the acid mantle, but rather give it what it needs to maintain harmony. Then, and only then, can you give it the 'super food' via advanced pure products that it needs.



Disrupted skin barrier function



Normal skin barrier function

Corneotherapy treatment is centred on recovery of the stratum corneum. The stratum corneum, once seen as a

layer of 'dead' cells whose sole function was to provide an impermeable barrier, has suddenly come 'alive'. While the



barrier layers may be increased with linoleic acid containing Phosphatidylcholine.

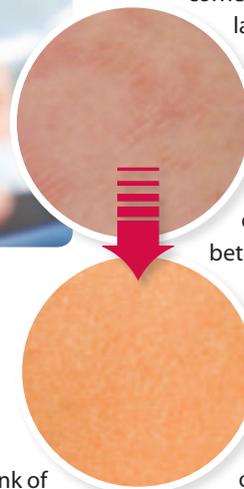
Using the principles of corneotherapy it is possible to achieve skin correction and effectively treat many skin disorders in skin treatment clinics before being earmarked for dermatology. That is, when using corneotherapeutic product ranges such as dermaividuals, we can often effectively treat clients in skin treatment centres, without the need to refer them to dermatologists or doctors.

One of the major advantages of corneotherapy is that it is largely free from side effects in comparison with a treatment using topical pharmaceuticals. Preventatively applied, corneotherapy may extend the intervals between attacks and reduce or even avoid the need to apply conventional dermatics.

Great advances in our knowledge of the structure and function of the stratum corneum,

have led to the development of many innovative products that have not only improved the efficacy and safety of traditional remedies but have made them more pleasant, convenient and easier to use. These innovations encompass new delivery systems to enhance penetration such as nanoparticles and liposomes along with new modes of application including sprays, foams, gels and encapsulation.

As Dr Kligman once said, "Whenever you see inflamed skin, regardless of its cause, it means that the stratum corneum is leaky and permeable. But if you repair the stratum corneum that tells the underlying tissues that they don't have to keep reacting like there's danger in the environment." At Dermaividuals we couldn't agree more and believe we have developed a unique and effective range of treatments and products to restore balance to the stratum corneum and promote ongoing healthy, balanced skin.



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stratum corneum consists of cells not capable of dividing and multiplying, it is far from being static tissue. Rather, it is dynamic and complex. The formation of this horny layer involves many highly orchestrated metabolic enzymatic functions. Myriads of studies over the last 50 years have shown with certainty that the stratum corneum has diverse and numerous functions all being essential for maintaining cutaneous homeostasis.

When the skin's barrier is disrupted, it is no longer protected from environmental stressors and pollution and loses its ability to protect and defend itself. If perfumes, emulsifiers and mineral oils are added to skin care products, the skin can quickly become further compromised.

Among the obviously harmful substances are surfactants, emulsifiers, preservatives and allergenic perfume substances.

For the purposes of preventive corneotherapy, it is essential to avoid skin care products with harmful substances such as those mentioned above. They are known irritants and allergens. Instead trained corneotherapists will only use customised, pure ingredients in their skin care products that can individually adapt

to treat specific skin problems. Think of it as bespoke skin care.

Kligman had a clever way of describing corneotherapy as being like an "outside-in" therapy, where "outside" is the stratum corneum and "in" are the therapeutic effects starting in the stratum corneum and working their way into the deeper layers.

So, preventative corneotherapy is aimed at supporting the maintenance of healthy skin and the prevention of skin conditions and disease.

Recent clinical studies* have shown that not only barrier disorders like atopic dermatitis respond particularly well to corneotherapy, but cornification disorders may also be treated with success. An important precondition of a healthy stratum corneum seems to be the presence of Phosphatidylcholine. This substance plays a significant role as a natural component of the cellular membranes. Moreover in its native form, it provides the linoleic acid for the formation of ceramide.

Phosphatidylcholine is also an essential element for the transformation of ceramides into sphingomyelins. It is an interesting fact that the fluidity of the skin

*Suvorova K, Corneotherapy, Les Nouvelle Esthetiques 2004; 4:28

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