HEALITE II
– realising the potential of LED therapy

HEALITE II FROM ADVANCED COSMECEUTICALS IS A STAND-ALONE AND ADJUNCTIVE PROCEDURE TO IMPROVE RESULTS IN COSMETIC PATIENTS. WORDS BY CAITLIN BISHOP.

‘ELEVEN MINUTES WITH HEALITE II IS GOOD FOR THE PATIENT AND FOR THE DOCTOR’

Healite II by Lutronic, distributed by Advanced Cosmeceuticals, is an 11-minute treatment that can help improve results and accelerate healing time in cosmetic surgery patients. It harnesses low-level light therapy to assist in healing and photomodulate cellular function.

From a practice manager’s perspective, Healite II signifies a versatile, affordable and popular therapy – it can be used a stand-alone treatment or as an adjunct to nearly any procedure, can be delegated to ancillary staff, and incurs no side effects for the patient.

Low-level light therapy is cleared by the Food and Drug Administration (FDA) in America for the temporary relief of minor muscle and joint pain arthritis and muscle spasm, relieving stiffness, promoting the relaxation of muscle tissue and temporarily increasing local blood circulation where applied. In aesthetics, the non-ablative skin surface treatment is used to treat acne, reduce the appearance of superficial skin lesions and for general facial rejuvenation. It’s also commonly used to help boost healing and recovery after more invasive surgeries or treatments.

‘Healite II incurs a larger systemic effect due to blood flow,’ explains Dr Glen Calderhead, Vice President of Medical and Scientific Affairs Division of Lutronic. ‘Photoproducts such as growth factors are produced during treatment. These get picked up in the blood and carried throughout the body. Healite II has been shown to accelerate healing, stimulate collagen production and increase cellular activity.’

Healite II as an adjunctive treatment

One study[1] from 2011 states LED therapy “induces a large variety of cytokines, chemokines and macromolecules” in the skin. The paper outlines the potential of LED therapy when used as an adjunctive procedure to other surgeries and treatments. The paper states:

“The combination of appropriate LED phototherapy as an adjunct to many other surgical or nonsurgical approaches where the architecture of the patient’s skin has been altered will almost certainly provide the clinician with even better results, with less patient down time, in a shorter healing period, and with excellent prophylaxis against obtrusive scar formation.”

According to the study, there are three criteria that must be met in order to achieve optimum effectiveness in LED Light therapy: the correct wavelength for the target cells must be used; the photon intensity must be adequate; and the dose fluence must also be adequate.

Optimum wavelengths of Healite II

Healite II harnesses wavelengths shown to achieve sufficient absorption and effective action upon the target cells and chromophores. “At present, the published literature strongly suggests 830 nm for all aspects of wound healing, anti-inflammatory treatments and skin rejuvenation, with a combination of 415 nm and 633 nm for light-only treatment of active inflammatory acne vulgaris,” the 2011 report states.

The Healite II uses a 830 nm wavelength with photo-sequencing to treat several aesthetic concerns, including hair loss, active acne and also in general skin rejuvenation. It uses the 633 nm wavelength in skin rejuvenation, and also to treat non-melanoma skin cancer, and harnesses a 415 nm wavelength to treat active acne.

Photo-sequencing technology improves the efficacy of Healite II treatment, using pre-emptive micro-low level light therapy with 590 nm.

This helps pre-condition the epidermis and enhance dermal tissue interaction before treatment with the 830 nm. The patient is exposed to 590 nm for 60 seconds ahead of the continuous delivery of 830 nm. ‘Yellow light is delivered at a low intensity and low dose to activate cells in the epidermis,’ explains Dr Calderhead. ‘We aim for keratinocytes and merkel cells, as both of these are highly endowed with mitochondria. Following this, the infrared at 830 nm is introduced. This penetrates the deeper dermis and beyond.’

Healite II delivers concentrated and therapeutic photon intensities

The Optical Lens Array technology of Healite II addresses the final two criteria of the 2011 study. It uses collimation optics, which more effectively harnesses the energy of 1800 new generation LEDs. This achieves concentrated and therapeutic photon intensities in the cells of the target tissue.

‘Optical lens array technology allows us to achieve the optimum level for tissue regeneration, which is 60 joules per square centimetre, more quickly,’ Dr Calderhead says. ‘Studies have shown greater light concentration, over a shorter time period, induces a significantly higher increase in cell activity compared to other systems. Eleven minutes with Healite II, compared to 20 minutes with another system, is good for the patient and for the doctor.’ **AMP**

Long-term results:

Treatment with Healite II has been shown to boost the body’s natural reservoirs of anti-ageing constituents.

‘When the infrared light hits mast cells in the dermis, they release a product called Superoxide dismutase (SOD),’ Dr Calderhead says. ‘This is an antioxidant that remains in the tissue for up to six months. The minute you’re exposed to some UV oxidative stress, the damaging effect is quenched because the SODs are waiting.’

1. Kim, W. S. & Calderhead, G. R. (2011). Is light-emitting diode phototherapy (LED-LLLT) really effective? Journal for laser surgery, phototherapy and photobioactivation, 20(3): 205-215

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