

LIGHT THERAPY

While the healing power of light has been used for thousands of years, The Greeks and the Romans both understood that sunlight could play a medical role – although there was little understanding of why. That came much later when 20th century scientists developed an understanding of the light and heat waves emitted by the sun and their potential uses.

Only now can it be controlled and its potential optimised for therapeutic treatment of various skin conditions and the effect of ageing.

Photo Thermal Treatments:

As early as 1903 scientists realised that light could be used for therapeutic treatments. The same year the Nobel Prize was awarded for work on light therapy.

The light spectrum ranges from ultraviolet light at 290 nanometres through visible light to the infrared range up to 2000 nanometres. Different parts of this spectrum have different effects on the skin.

The purple lower end of the spectrum is used to deliver Vitamin D, treat psoriasis, skin cancer and ageing. The blue light is helpful in treating acne, the yellow range stimulates collagen remodelling, and the red assists hair growth and wound healing.

Intense Pulse Light: in beauty therapy uses light wavelengths that safely target either melanin or haemoglobin in the skin. It can be used to reduce unwanted hair growth, fade brown spots and cauterise enlarged or broken capillaries.

Unlike Lasers, IPL devices produce a broad spectrum of light in a range of wavelengths. The emitted light is further adjustable through the use of filters. Laser therapies
In 1917, A. Einstein theorised on the stimulated emission or radiation, or what we commonly refer to as Lasers. Laser is an acronym for Light Amplification for the Stimulated Emission of Radiation. It is used for an array of treatments ranging from the correction of skin irregularities, pigmentation and wrinkles… They work by selecting a wavelength that is readily absorbed by the target tissue.

The same way a black car will be hotter than a white one because it absorbs more wavelengths of light

The target tissue is heated to a temperature high enough to destroy it without damaging the adjacent normal tissue. The laser emits a single frequency of light with all the light waves going in the same direction, allowing the target to absorb the maximum amount of heat. The target is important when treating skin problem: for pigmentation it is melanin, for spider veins blood and for wrinkles water. Each of these target tissues absorbs a different wavelength of light, meaning a different laser.

Ablative Laser Treatments are an extreme but effective method of treatment, but used only for severe cases because of the extended healing time involved.

Fractional Laser Technology:

Fractional Lasers, which break up light beams to allow columns of untreated tissue to activate healing mechanisms beneath the skin's surface have facilitated fast, easy treatments for skin conditions ranging from scars and birthmarks to wrinkles. They work by creating microscopic thermal injuries that trigger collagen production, stimulating cell renewal and plumping out the tissues while the surface of the skin remains intact.