



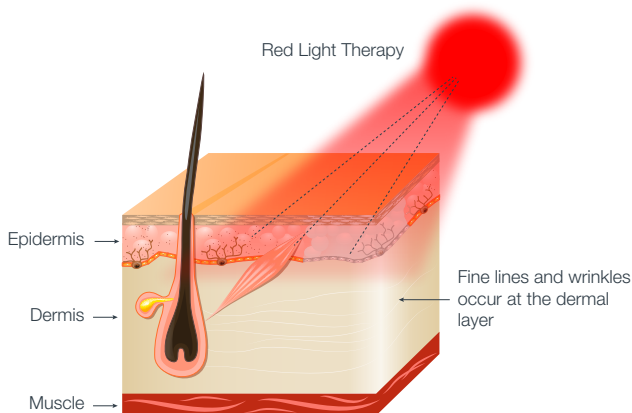
the science behind light therapy

What's LED (light-emitting diode) therapy? This non-invasive treatment uses low-level, skin-safe light to improve skin's appearance. The different wavelengths of light enter the skin at distinctive depths to target a variety of skin conditions.

LED therapy is primarily known for helping stimulate collagen production, which can help smooth skin's appearance and reduce visible damage from acne, age spots and wrinkles.

Unlike other types of light therapy, LEDs are safe for regular use on all skin tones and types because they do not contain ultraviolet (UV) rays. However, those with an active skin rash, clients taking Accutane orally or using topical medication for acne should avoid this therapy to avoid scarring as the Vitamin A in Accutane can increase skin's sensitivity to light.

Red light therapy is a treatment often used to address early signs of premature skin aging while also promoting wound healing and repair.



Mitochondrial damage and dysfunction accumulate with age and in response to UV rays and pollution. This is linked to wrinkle formation, uneven pigmentation and decreased wound healing. The primary function of red light therapy is to strengthen and increase energy production in the mitochondria, which you can think of as the “power plant” of the body's cells. When red light is applied to the skin, it is first absorbed by the epidermis (the outer layer of the two main layers of skin). Then, it stimulates skin cells called Fibroblasts to make collagen, an important part of skin recovery. In theory, more collagen means that skin will also look smoother and fuller with a reduced appearance of fine lines and wrinkles. Red LED light is also thought to reduce inflammation while improving circulation, which can give skin a healthier glow.

the science behind IPL (Intense Pulsed Light)

Intense Pulsed Light (IPL), also known as a Photofacial, specifically uses visible broad-spectrum light wavelengths to target hyperpigmentation, redness, dilated capillaries and minimizes fine lines and wrinkles beneath the skin's surface. IPL uses light energy to target a certain chromophore or color in skin. Pigment cells in your skin absorb the light energy, which is then converted into heat. For example, the heat destroys the unwanted pigment to clear up dark spots, post-acne hyperpigmentation and sunspots. IPL energy penetrates the epidermis layer of the skin and gently heats the dermis, the layer of skin just underneath it. When the body senses this heating in the dermis, it responds as if it has been wounded by producing new collagen and sending it to the "wounded" area. Since collagen provides the skin's underlying support structure, this firms skin and reduces the appearance of lines and wrinkles. Plus, since IPL penetrates down to the dermis without harming the epidermis, it causes less damage to your skin than other methods to stimulate collagen production, which means fewer side effects and less downtime.

The Difference Between IPL And Laser Treatment

IPL is similar to a laser treatment. They both work on the same principle of sending light energy to be absorbed by areas of high pigment, which are heated. The heat damages the pigment and clears away any unwanted pigment or hair.

The main difference between IPL and a laser treatment is the light source used. A laser focuses just one wavelength of light at your skin to directly target pigment and hairs, while IPL releases many different wavelengths of light at your skin overall. The light from IPL is more scattered, less focused and weaker than a laser. Laser has a strong, concentrated light where all energy is focused on that single light. For an easy analogy to help you remember the difference, you can think of IPL like the sun shining on everyone versus a laser being like lightning striking certain spots.

