

# The Power of LED Technology: What Makes LED Helpful for Aesthetic Facials



## **1. LED Increase Vascularity:(circulation)**

Increase the formation of new capillaries, which are additional blood vessels that replace damaged ones. New capillaries speed up the healing process by carrying more oxygen as well as more nutrients needed for healing and they can also carry more waste products away.

## **2. LED Stimulates the Production of Collagen:**

Collagen is the most common protein found in the body. Collagen is the essential protein used to repair damaged tissue and to replace old tissue. It is the substance that holds cells together and has a high degree of elasticity. By increasing collagen production less scar tissue is formed at the damaged site.

## **3. LED Increases Lymphatic System Activity:**

Edema, which is the swelling or natural splinting process of the body, has two basic components. The first is a liquid part which can be evacuated by the blood system and the second is comprised of the proteins which have to be evacuated by the lymphatic system. Research has shown that the lymph vessel diameter and the flow of the lymph system can be doubled with the use of light therapy. The venous diameter and the arterial diameters can also be increased. This means that both parts of edema (liquid and protein) can be evacuated at a much faster rate to relieve swelling.

## **4. LED Stimulates the Release of Adenosine Triphosphate (ATP):**

ATP is the major carrier of energy to all cells. Increases in ATP allow cells to accept nutrients faster and get rid of waste products faster by increasing the energy level in the cell. All food turns into ATP before it is utilized by the cells. ATP provides the chemical energy that drives the chemical reaction of the cell.

## **5. LED Increases RNA and DNA Synthesis:**

RNA and DNA synthesis help damaged cells to be replaced more promptly.

## **6. LED Reduces the Excitability of Nervous Tissue:**

The photons of light energy enter the body as negative ions. This calls upon the body to send positive ions like calcium among other to go to the area being treated. These ions assist in firing the nerves thereby relieving pain.

## **7. Stimulate Fibroblastic Activity:**

Stimulating fibroblastic activity will aid in the repair process. Fibroblasts are present in connective tissue and are capable of forming collagen fibers.

## **8. Increase Phagocytosis:**

An increase in Phagocytosis is the process of scavenging for and ingesting dead or degenerated cells by phagocytes cells for the purpose of cleaning up. This is an important part of the infection fighting process. Destruction of the infection and clean up must occur before the healing process can take place.

### **9. LED Induces Thermal Like Effect in the Tissue:**

The light raises the temperature of the cells through a Photo-Chemical reaction.

### **10. LED Stimulates Tissue Granulation and Connective Tissue Projections:**

Tissue granulation and tissue projections are part of the healing process of wounds, ulcers or inflamed tissue.

### **12. LED Stimulate Endorphins and Enkephalins:**

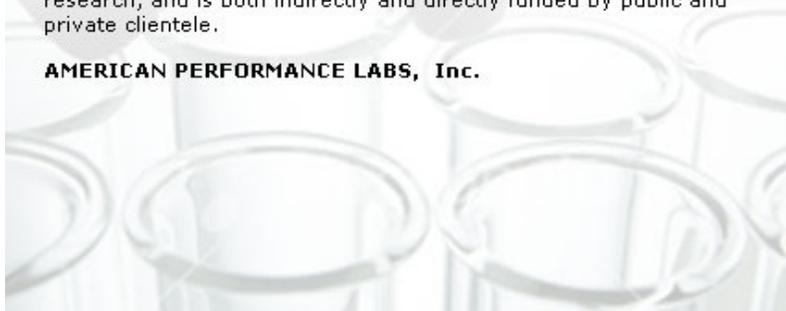
Endorphins and Enkephalins are produced in the brain as well as chemicals from other areas of the body like adrenals which facilitate long term pain-relief.

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