

Low Level Lasers used for hair loss treatment

compiled by Nick Balgowan » Wed Jun 24, 2009 12:25 pm

Reported Studies of LLLT in Hair Loss (Man & Woman)

NOTE: These medical studies are abstracts of reports submitted . Various light sources, including lasers, have been used in attempt's to grow hair and stop hair loss since the 1950's. Some of these studies have included light sensitive drugs. These studies are not presented here.

Professor Andre Mester (1964)

In 1964, Professor Andre Mester began experimenting with the use of low-power laser energy in Budapest, Hungary. He observed that low energy laser exposure has a stimulating effect on the biological system, while high-energy laser exposure had an inhibiting effect. In his experiments with wound treatment on mice, he noticed rapid healing due to microcirculation of blood supply. This healing was also obvious in laser light treatment of diabetic patients suffering with dystrophic sores. He was amazed to find sores that would not otherwise heal were healed, and he also observed accelerated hair growth and thickening of hair in the treated areas. This theory through its evolution has since been refined and is widely becoming one of the most popular non-invasive hair loss treatments.

Laser researcher Dr. J. Layton Wright states: ... "Laser Hair Therapy increases microcirculation of the hair follicle, which allows nutrients and freshly oxygenated blood to access the hair follicle with the results being a stimulation of the natural hair growth cycle."

Dr. Trelles (1984)

In 1984, Dr. Trelles showed in one study that patients with alopecia areata who were treated with He-Ne laser 632,8 nm showed a good response. Dr. Trelles reported that most of the patients with alopecia areata responded well after only 6 to 8 treatments administered twice a week for a couple of weeks. The He-Ne laser was placed 30 centimeters from the alopecia areata with dosages ranging from 3-4 Joule per sq. cm. No fibres or lenses were used. In the same study, microscopic evaluation of the hair shaft structure on the alopecia areata irradiated areas showed a clear medulla rich in keratin after treatment. Daily treatments appeared to prevent regrowth, causing irritation with probable increase in hair loss.

At the 4th annual Meeting of the Japan Laser Therapy Association in 1992, success was reported with an increase in both hair growth and the density of the hair follicles in the laser treated areas of

both male and female stress alopecia and alopecia areata with only one failure out of 40 cases reported in two papers.

European Studies (1997)

In 1997 a European group of scientist's published their work on LLLT in the treatment of alopecia of the scalp. The authors tried to verify the efficacy of low energy laser (LLLT) in scalp alopecia. Sixty patients were divided in two groups: A) laser group, 33 patients treated with both LLLT and classical therapy; B) control group, 27 patients treated only with classical therapy, Before, during and after treatment, histological samples were done.

For the group A the results were rather superior but in a twice shorter time than group B. The maintenance of the good results needed classical therapy for a long period. They conclude that LLLT therapy could have a useful complementary method for the treatment of scalp alopecia.

The same European group of scientist's published their findings on LLLT use in the treatment of alopecia and crural ulcers in 1998. The authors tried to verify the efficacy of LLLT in scalp alopecia and crural ulcers of different causes. Laser used was (red diode, continuous emission, 8 mW power, wave length 670 nm spot size about 5 mm diameter on some points. They also use as control classical therapy. Before, during and after treatment, histological samples were taken from alopecia regions. For the laser groups (alopecia and ulcers) the results were rather superior and in a three or twice time shorter than the control group. They conclude that LLLT therapy is a very useful complementary method for the treatment of scalp alopecia and crural ulcers.

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