

Naeser Laser Home Treatment Program for Alopecia Areata

No Medical Claims of Cures are made. The treatment protocol is based on clinical experience.

Naeser MA, Wei XB. Laser Acupuncture - An Introductory Textbook for Treatment of Pain, Paralysis, Spasticity and Other Disorders. Clinical and Research Uses of Laser Acupuncture from Around the World. 1994. Boston, Boston Chinese Medicine, pp. 110-117. (Book available through: sales@spanda.com)

There are photos of before, and after laser treatment on the bald patches, in this book.

In alopecia areata, there are patches of bald spots on the head. It can occur in children, or men or women. The etiology is unknown, but it is often associated with an immune system abnormality (auto-immune disorder) where there is inflammation in the hair follicles. The low-level laser treatment will have an anti-inflammatory effect, thus reducing the inflammation in the hair follicles, and allowing hair re-growth to take place.

This laser treatment is more effective with cases where the hair loss in a specific patch has been present for only 1 or 2 years. In 1985, I was told in China at the Shanghai Number One Medical College, Neurological and Dermatological Laser Research Institute, that there is a 90% success rate with red-beam low-level laser therapy to treat these cases. (In 50% of patients with alopecia areata, there is a spontaneous return of hair growth in the first year.)

With cases where hair loss has been present for several years, it is much more difficult to treat, and the hair follicles may have become too dormant for any re-growth to occur. Thus, there is a much lower success rate, if the condition has been present for over 2 years.

In cases with alopecia totalis (hair loss over the entire head), the success rate is only 30%.

It is not advisable to combine local cortisone injections with low-level laser treatments. The cortisone will block the absorption and positive effects of the laser light.

1. Wipe the bald spot with an alcohol wipe. Allow to dry. There must be no oil or perspiration or liquid of any color on the bald spot (nor any topical or injected cortisone on, or in the spot). These would block the laser beam.

2. Turn the laser pen on to full, continuous wave laser beam (not pulsed laser beam). Hold the tip of the laser pen on the skin (perpendicular angle) at each 1/2 inch square area of baldness, to deliver a minimum energy density dosage of 4 Joules/cm² to each 1/2 inch square area of baldness. I prefer to treat at 8 J/cm² per 1/2 inch square area of baldness, or even 50 to 100 J/cm² per 1/2 inch square area of baldness. A red-beam laser is the most common wavelength used, because of the shallow penetration with red-beam lasers. For example, 632.8 nm, a Helium Neon laser, was used successfully (33 of 35 cases, 94%) by Trelles, Mayayo, Cisneros (1984; see their article in Spanish, pp. 106-108 in Naeser & Wei, 1994). A 670 nm laser may also be used (a common, red-beam diode laser wavelength used in laser lecture pointers) (Naeser, personal observation). Also, a near infrared-beam laser may be used, 780 nm, for example (Naeser & Wei, 1994, pp. 110-117).

Sample Laser Parameters:

(Because a 5 mW red-beam laser pointer is inexpensive, it may be tried for home use)

5 mW red-beam laser pointer, 670 nm wavelength (5 mm diameter aperture)

Beam spot size = 0.196 cm²

1 Joule/cm² energy density dosage = 39.2 sec

4 Joules/cm² energy density dosage = 156.8 sec. or 2 minutes, 36 sec.

3. When treating with the above-mentioned 5 mW laser pointer, it is necessary to hold the laser pen firmly in place, for either 2 minutes, 35 seconds (4 Joules/cm²) or 5 minutes, 23 sec (8 Joules/cm²) on each 1/2 square area of baldness. This is tedious to do when holding the laser pen in the hand.

Therefore, to make it easier, I recommend that the patient purchase an inexpensive straw hat with a sturdy, wide brim (at least a 3 or 4 inch wide brim). Cut a small hole into the hat (the size of the laser pen tip), then place the tip of the laser pen through the hole, and tape the laser pen onto the brim of the hat.

Position the hat on the head, so that the laser pen tip sticks through the hat, directly onto the bald area to be treated. Position the laser pen onto each 1/2 inch square area of each bald spot, for the required treatment time. Rotate the position of the hole in the hat every 5 minutes or so, according to whichever bald spot is being treated with the laser pen, etc. Patients can watch TV or read, or whatever, as long as the laser pen remains in the fixed place, for each required treatment time interval.

4. Replace the batteries after 3 hours of use. Do not wait until the laser beam starts to look dim. It is important to keep the full power from the laser at 5 mW, in order to produce the required 4 Joules/cm² energy density dosage, or 8 Joules/cm² energy density dosage, etc.

5. Do not drop the laser pen, it is very fragile, and cannot be repaired.

6. Treat 3 times a week (every other day - THIS IS VERY IMPORTANT). Treat for 4 or 5 weeks. If no positive results are seen after 5 weeks, this particular protocol is probably not going to work. Consider increasing the energy density dosage to much higher levels, even 50 or 100 J/cm² per 1/2 inch square area of baldness.

Fifteen treatments (every other day) is the number of treatments I suggest, however, 25 treatments (every other day) are recommended by Colls Cruanes (1985). See pages 109-111, Naeser & Wei (1994). Trelles, Mayayo, Cisneros (1984) applied only 6 or 8 treatments, with 3 or 4 J/cm².

Once the hair starts to grow in, you can reduce the treatments to twice a week for a few weeks, then only once a week, etc. The hair continues to grow in, once it gets started. There is a low relapse rate, when treated with low-level laser therapy, but patients with lupus may have re-occurrence after a few years. It can usually be treated successfully again, with this protocol.

7. This treatment may be more effective if it is combined with Chinese herbal therapies, especially those containing He Shou Wu. Other Kidney Tonics are appropriate. See the Chinese herbal patent medicine book: Naeser MA. Outline Guide to Chinese Herbal Patent Medicines in Pill Form - with Sample Pictures of the Boxes. 1989. Boston, Boston Chinese Medicine, pp. 296-298. (Book is available through sales@spanda.com)

8. This protocol is not used to treat male pattern baldness. It is less successful to treat hair loss due to thyroid dysfunction.

9. One source for a 5 mW red-beam laser pointer is: Ito Laser, 5mW, 670 nm, Lhasa Medical, Weymouth, MA 800-722-8775, www.LhasaMedical.com \$118.00 per laser. Replace the two AAA batteries after 3 hours of use. If two lasers are purchased, the cost is \$112 per laser.