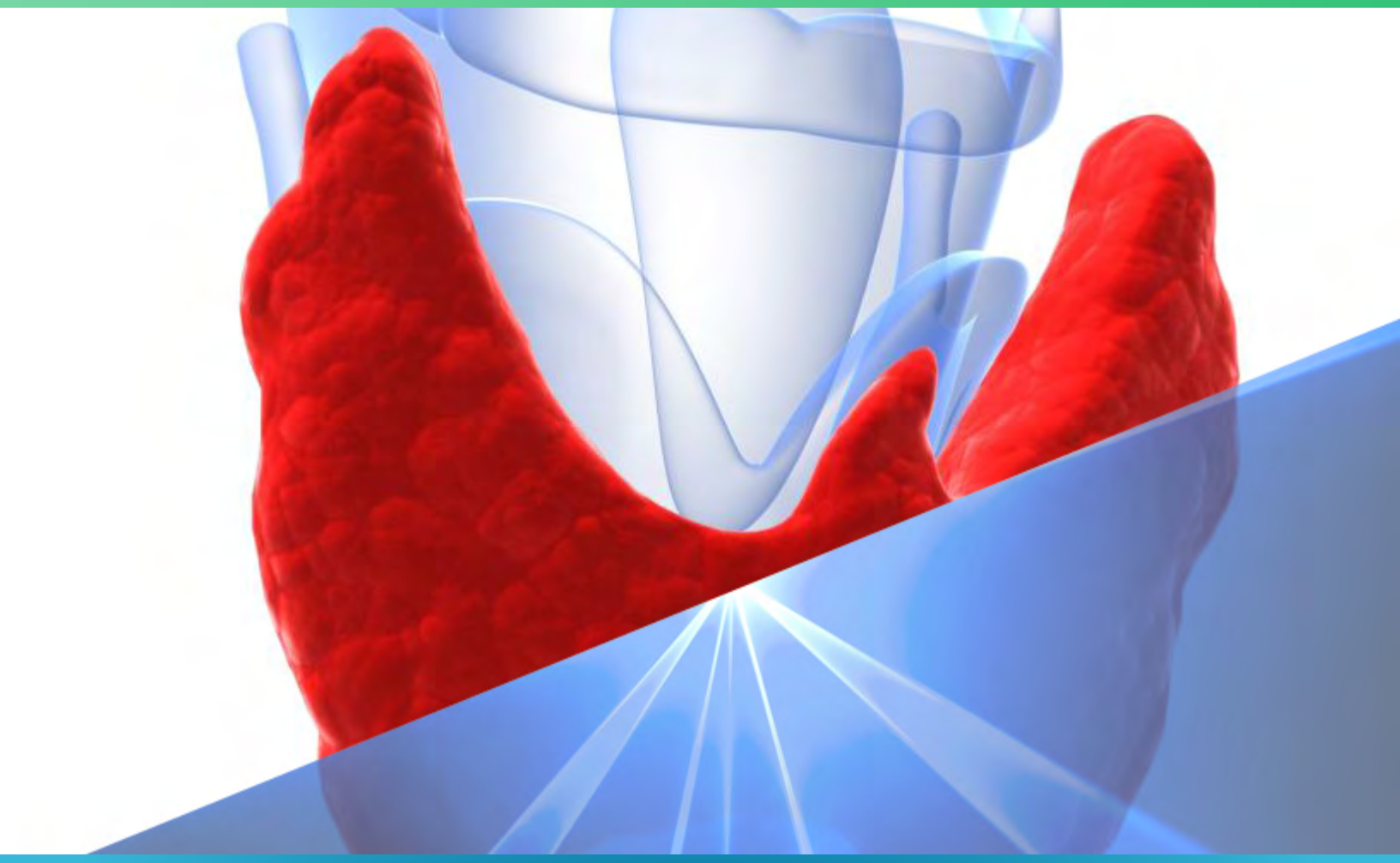
THYROID PHARMACIST



Low Level Laser Therapy

THYROID PHARMACIST PROTOCOL

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Introduction

Low Level Laser Therapy (LLLT) also known as "cold laser therapy" can accelerate thyroid tissue regeneration, allowing up to 50% of Hashimoto's patients to be medication free. While most body organs are not accessible to laser therapy, the thyroid gland is close enough to the skin surface so that the laser will be able to penetrate it. Additionally, this therapy is painless, non-invasive, low-cost, and carries a low risk, as it does not use ionizing radiation.

Researchers at the Thyroid Outpatient Clinic of the Endocrinology and Metabolism Department at the Hospital das Clínicas, Faculdade de Medicina da Universidade de São Paulo in Brazil have studied the effects of low-level laser therapy on the thyroid gland in Hashimoto's thyroiditis and have reported the following:

- LLLT increases Transforming Growth Factor B (TGF-B), which is a cytokine that helps to promote self-tolerance, thus reducing the body's autoimmune response
- LLLT improves microcirculation in the thyroid gland
- LLLT increases T3 and T4 levels in animals
- Average levothyroxine dose dropped from 96 +/- 22 mcg/day, to 38 +/- 23 mcg/day
- TPO antibodies: reduction: 10/15, no change: 2/15 (no change), increase: 3/15
- TG antibodies: reduction: 8/15, no change: 5/15, increase: 2/15
- 43% of the people who had an abnormal thyroid volume saw that their thyroid size normalized. The remainder also saw an improvement towards normalization, reaching near normal values. Thus this therapy may also be helpful for reducing goiter size
- 43 person study (2011): 95.7% of treatment group being able to reduce or stop medications, 47.8% no longer needing thyroid medications
- Normalization of thyroid volume (in 66%)
- Less infiltration of the thyroid gland on ultrasounds, echogenicity index on thyroid ultrasound was improved in 95% of the study group.

Study Materials & Methods

Laser: Thera Lase, DMC, San Carlos, Brazil, Beam area of 0.02827 cm cubed.

Patients received thyroid ultrasounds and a surgical pen outlined the boundaries of their thyroid gland. They received 10 applications of LLLT (830 nm, output power 50mW) in continuous mode, twice per week for 5 weeks over the thyroid gland (707 J/cm2 for 40 seconds in each spot).

Thirty days after the LLLT treatment, medications were discontinued and then reintroduced if needed. Researchers tested levels of thyroid hormones, TPOAb, and TgAb, at 1, 2, 3, 6, 9, months after stopping the levothyroxine.

Limitations: The researchers only followed patients for 9 months, and noted that the effects of the therapy may not last forever, a person may need to go in for "maintenance" on an annual basis. However, when used along with the Root Cause Protocol of removing triggers, this therapy can potentially result in a functional cure of Hashimoto's for additional people.

Please note, this therapy has not been tested on people who take immunosuppressants like corticosteroids, in those with thyroid nodules, in those with hypothyroidism from postpartum thyroiditis, or Graves' disease. At the present moment, this therapy is still considered experimental, and is not FDA approved, however individual doctors may be able to utilize this therapy with their patients as an "off-label" use.

Resources

Dr. Kirk Gair from West Covina, CA, who is also a Hashimoto's patient, has used cold lasers in his clinic since 2004 and has developed protocols that combine LLLT with chiropractic modalities and is working to train other doctors and spread awareness about low level laser therapy with autoimmune thyroid disease. Dr. Kirk Gair's website.

References

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2. Höfling D, Chavantes M, Juliano A, et al. Low-level laser therapy in chronic autoimmune thyroiditis: a pilot study. *Lasers Surg Med*. 2010;42(6):589-96. doi:10.1002/lsm.20941.
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4. Höfling D, Chavantes M, Juliano A, et al. Assessment of the effects of low-level laser therapy on the thyroid vascularization of patients with autoimmune hypothyroidism by color Doppler ultrasound. *ISRN Endocrinol*. 2012;2012:1-9. doi:10.5402/2012/126720.

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http://www.locateadoc.com/doctors/low-level-laser-therapy-cold-laser-therapy