Treatment of Male Pattern Hair Loss and Hair Thinning with HAIRestart®

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Introduction:

Male pattern hair loss (MPHL), also known as androgenetic alopecia, is the most common cause of hair loss in men. It is characterized by a progressive miniaturization of hair follicles in genetically predisposed individuals, typically resulting in a receding hairline and thinning at the crown. The condition is largely driven by androgens, particularly dihydrotestosterone (DHT), which affect the hair growth cycle and lead to a shortening of the anagen (growth) phase.

The severity of MPHL is commonly classified using the Norwood-Hamilton scale, which ranges from Stage 1 (minimal recession) to Stage 7 (severe hair loss). Trichoscopy is a non-invasive diagnostic tool that can further quantify hair characteristics, including hair density and shaft thickness, and is useful for monitoring treatment response.

Laser	SP Dynamis
Wavelength	Er:YAG 2940 nm
Handpiece	X-Restart (long spacer)
Fluence	2.25 J/cm^2
Pulse duration	Estart
Frequency	2.5 Hz
Technique	Brushing
Interval during sessions	2-3 weeks
Handpiece	X-Restart (long spacer)
Sessions	10 sessions

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CLINICAL CASE:

A 33-year-old male patient with no known comorbidities presented with concerns of hair thinning and hair loss, primarily in the temporal regions. Clinical examination classified his hair loss as stage 2–3 on the Norwood scale. Using the TrichoLAB phone application, a trichoscopic evaluation was performed, which showed a Trichoscopy-derived Sinclair Scale score of 2–3, confirming moderate androgenetic alopecia.

The patient underwent the HAIRestart® protocol using the SP Dynamis laser system (Fotona d.o.o., Slovenia) and the X-Restart® handpiece with a long spacer. Treatment parameters included a fluence of 2.25 J/cm² and a frequency of 2.5 Hz. Brushing passes were applied over the entire scalp to deliver a total of 2000 pulses per session. The procedure was well tolerated, with the patient reporting only a mild warming sensation. No anesthesia, no downtime, and no post-procedural care were required.

At the six-month follow-up (1 year after the start of the treatments), there was a marked improvement in overall hair thickness, particularly in the temporal regions. The Trichoscopy derived Sinclair Scale score improved to 1.5–2.5. Quantitative trichoscopic analysis of the temporal area showed an increase in the percentage of thick hairs from 73% to 86%, average hair shaft diameter increased from 61 µm to 66 µm, and follicular unit density improved from 68 N/cm² to 81 N/cm². These results were corroborated by both clinical photography and trichoscopy.

Before-and-after documentation was performed using standard smartphone photography and trichoscopic imaging.

Before 1st treatment (top to bottom, frontal, temporal and occipital area)

6 month follow up (1 year after the start of treatments) (top to bottom, frontal, temporal and occipital area)