

Can mitochondria reverse balding?

One man's hair-raising experiment. BY PETER MOORE

ON THE NORWOOD-HAMILTON

scale of male-pattern baldness, I'm a III vertex—if my scalp were planet Earth, my ice cap would be melting. Which is why I was intrigued when the HairMax LaserComb was cleared by the FDA in 2007. Last summer, I was trained in laser-combing at a plastic surgeon's office in New York, and started treating my (relatively minor) baldness in the prescribed way: For 10 to 15 minutes, 3 days a week, I dragged the comb over my scalp. Once, in the morning gloom, my wife encountered me doing so, and pronounced it (or maybe me) "creepy."

She had a point: The red laser light casts an eerie glow. But if you want to wake up the mitochondria (intracellular power plants) in sleepy hair follicles, you make sacrifices.

Beginning my therapy in 2008, I was roughly 40 years behind some shaven mice in a lab in Budapest, Hungary. Endre Mester, a Hungarian physician, had trained a laser (which had only just been invented) on shaven mouse skin and was shocked to see

accelerated hair growth under the lights. One theory about how it works: Laser light delivers photons to mitochondria, goosing them to increase production of ATP—the chemical energy source that powers cells. More ATP means that slacker hair follicles develop new mojo, which means less chrome on your dome.

At my first appointment, the dermatologist in New York warned me that it might take 3 months or longer for my mitochondria to take the hint. And according to those who look at my head every day, they probably have been so cued.

My experience is in line with an as-yet unpublished study submitted by HairMax to the FDA during the application process for marketing approval. A 6-month trial of 110 men, ages 30 to 60, found that the men who used the laser comb wound up with about 30 more scalp hairs per square centimeter than guys who used placebo combs. And, if it works the same for you, that'd be plenty for her to run her fingers through.

You'll note, of course, that it's an unpublished study, meaning it lacks the peer review that would tell us if the deep thinkers in laser therapy accept the results. And we'll note that FDA clearance simply means the comb is *safe* to use, not necessarily that it's effective. Marc Avram, M.D., a New York hair-transplantation expert, conducted a small study of the comb and gives it a limited thumbs-up: "If a patient couldn't take Rogaine or Propecia, or needed an alternative, I would recommend the laser because it's safe and it may work. I just don't know how well it works." His reasoning: No large-scale studies have been published (especially not compared with the number of studies of such bona fide hair growers as Rogaine and Propecia).

Okay, so I've seen some success. So has the unpublished study, and so has Dr. Avram. The comb is pricey: \$550. If you want to experiment on your own head, go for it. Just make sure you close the bathroom door first.