

Spectral.DNC-L®

Combines all the latest science into one aggressive hair-growth treatment.

More than minoxidil alone, any single drug or supplement, Spectral.DNC-L is today's most advanced hair-growth treatment. It combines all the latest science into one convenient formula to perform through multiple pathways.

Spectral.DNC-L is a true breakthrough. It delivers the most aggressive, powerful, and effective topical treatment to retain and regrow hair because it combines a broad spectrum of clinically proven compounds. This recipe is not like any other product available over the counter or by prescription.

Spectral.DNC-L deposits cutting-edge ingredients deep below the surface of the scalp, where they can really perform, through proprietary nanosome encapsulation. These tiny nanosomes -- micro-spheres of organic liposome 200 times smaller than human skin cells -- have a composition similar to skin. Unlike common lotions, they burrow into the dermis to release their precious cargo slowly over time, for maximum effect.

In a cream base for easy application without dripping, Spectral.DNC-L starts with research-grade 5% minoxidil, the best-known molecule proven by clinical trials to trigger hair growth. Then it adds three natural 5-alpha-reductase inhibitors to suppress the hormone dihydrotestosterone that triggers male pattern baldness. It pioneers use of the amino acid arginine to stimulate nitric oxide formation, mediate cell activity, and feed hungry follicles.

An army of auxiliary agents reinforce these ingredients. Natural botanicals combat fungal colonization and reduce sebum. Soothing retinol calms inflamed tissues. Aminexil SP94® strengthens roots. Vitamins and minerals contribute to nutrition. Capsicum stimulates.

This coordinated attack against baldness means that Spectral.DNC-L protects against damage, slows hair loss, improves follicle health, and grows new hair longer, thicker, and faster than any other product.

The bottom line: You get to keep the hair you have, regrow the hair you lost, and live the life you really want.

Who should use Spectral.DNC-L?

All treatments work better in the early stages of baldness, since hair follicles atrophy over time. But Spectral.DNC-L is indicated for men with

advanced androgenic alopecia -- male pattern baldness of 4 or greater on the Norwood scale -- because it grows hair with several complementary agents that perform through multiple pathways.

Clinically proven ingredients include:

- Ø Minoxidil
- Ø Procyanidins
- Ø Arginine
- Ø Adenosine
- Ø Three 5-alpha-reductase inhibitors, and
- Ø An army of compounds to enhance their performance.

The breakthrough formula treats follicular dysfunction more aggressively, powerfully, and effectively than any other product.

Patients who do not respond to minoxidil alone do perceive dramatic new hair growth after just three months of using Spectral.DNC-L.

If your hair loss results from genetic factors, then treatment must continue to retain your new hair. Otherwise, follicles would regress in two or three months. While Spectral.DNC-L can control androgenic alopecia, as of yet no formula cures it permanently. Once new hair is achieved, patients can switch to Spectral.DNC® or Spectral.RS® for maintenance.

How long does the treatment take before I start to see results?

Massage Spectral.DNC-L into your scalp twice per day for three months to witness amazing results.

Twice each day -- morning and night and after bathing -- dispense enough cream onto your fingertips to cover the affected area completely. Massage it evenly into the scalp, then wash your hands with soap. Allow Spectral.DNC-L to dry completely before styling.

Treat consistently for three months, without missing an application, before attempting to evaluate results. Continue treatment to retain your new hair.

For a more intensive start, especially after years of balding, add a mid-day treatment of Spectral.DNC®. This spray, with a complementary

formula, acts through additional pathways for a broader attack on balding.

Why am I going bald?

Androgenic alopecia, commonly called male pattern baldness, advances in a predictable sequence of events. While many gaps remain in our understanding, basic processes include the genetic programming of hair follicles and the circulatory strength of male hormones.

Baldness, while not exactly a physical disease, does cause emotional distress to men and women who suffer from it. Spectral.DNC-L is the topical treatment that works through multiple pathways to arrest hair loss and cause regrowth.

Demographics: White men suffer the greatest risk of baldness; 96 percent will lose significant hair eventually. This effect testifies to the role of genetics. But eunuchs do not go bald. That effect testifies to the role of hormones.

By age 30, 30 percent of Caucasoid males will show evidence of androgenic alopecia. By 50, 50 percent will. They are four times more likely than negroid males to go bald.

Spectral.DNC-L contains research-grade 5% minoxidil, approved in the 1990s by the US Food and Drug Administration to regrow hair, and still the most proven molecule. The formula also contains Aminexil SP94®, the next most proven medication, plus a broad spectrum of other proven and promising agents: procyanidins B-2 and C-1, natural 5-alpha-reductase inhibitors, arginine, adenosine, botanicals, retinol, vitamins, minerals, and capsicum.

Pathology: The standard pattern of balding begins with bitemporal recession of the hairline (W shape). At roughly the same time, the vertex (swirl at the crown) begins to thin. Eventually, it becomes a bald spot.

As the hairline retreats, the two bare patches merge, leaving an island of hair at the center-top. This holdout is the last to go.

While the exact order of events may vary, hair on the back and sides of the head remains largely intact. Loss can start as early as puberty, when androgens appear in concentration.

For some men, it takes only five years to go completely bald, although 15 to 25 is more typical. While average hair loss is five percent per year, the process often goes in spurts -- three to six months of accelerated loss, followed by six to 18 months of relative quiescence.

Spectral.DNC-L is indicated for men with advanced androgenic alopecia -- 4 or greater on the Norwood scale -- because it combines numerous complementary agents to perform through multiple pathways.

Miniaturization: Hair follicles do not shut down suddenly. They produce strands progressively thinner and shorter, called miniaturization, during each follicular cycle. Three phases of growth make one cycle: anagen, catagen, and telogen.

In the anagen phase, which normally lasts a few years, cells at the base of the follicle grow and divide to form a new hair. The strand pushes through the scalp and lengthens during anagen phase.

In the catagen phase, a transition of just a week or two, the strand is nourished and remains attached, but the follicle shrinks and the hair stops growing.

In the telogen phase, normally several weeks, the follicle rests and stops nourishing the hair, which can fall, be pulled, or get pushed out at any time. When the follicle cycles back into anagen phase, it produces a new hair that pushes out any remaining old hair.

The ratio of anagen- to telogen-phase follicles is normally 12:1. With androgenic alopecia, that ratio gets progressively thinner, maybe 5:1. Anagen phases get shorter and telogen phases get longer. For this reason, patients need patience with any treatment.

Follicular miniaturization affects the papilla (vascular process that nourishes the root), the matrix (environment in which the hair forms), and the shaft. Roots often become rigid and compress the blood vessels that nourish them, called the rigidification of collagen.

As follicles miniaturize, the diameters of their hairs get smaller as well, perhaps from .08 mm down to .06 mm. Pigment production also decreases.

Spectral.DNC-L works to reverse miniaturization by incorporating arginine to help the body form nitric oxide, three phytosterol extracts to inhibit the enzyme 5-alpha-reductase, procyanidins to help the root sheaths and bulb matrix interact successfully with the dermal papilla, and Aminexil SP94 to prevent rigidification of collagen.

Pathogenesis: Counterintuitively, the same hormones that cause hairs to lose pigment and fall out of the scalp after puberty also cause them to gain pigment and grow thick on the face, chest, armpits, and pubis.

Studies of androgen insensitivity and 5-alpha-reductase deficiency have

attempted to explain this paradox. Why do some follicles react to hormonal activity by shutting down? Four major theories include:

- higher numbers of androgen receptors,
- higher local production of dihydrotestosterone (DHT),
- higher level of systemic testosterone, and or
- higher production of DHT by the prostate.

The enzyme 5-alpha-reductase catalyzes testosterone into DHT, which binds to the same receptors, but more avidly. While the prostate does produce more DHT than the scalp, the role of each site is not fully understood.

Changes in scalp hair does not imply changes in body hair or sex drive. The effects of androgens on a follicle depend entirely on its location. When occipital hair follicles get transplanted to a bald vertex, they continue to resist alopecic attack, the basis of hair transplant surgery. Conversely, follicles from a bald vertex do not grow hair even when transplanted amid growing hairs.

Scientists believe this genetic programming comes from dominant autosomal genes that control testosterone and its conversion to DHT, but do not rule out polygenesis.

Spectral.DNC-L deploys three potent phytosterol extracts to reduce the production of DHT by inhibiting the activity of 5-alpha-reductase: ripe-olive biophenols (verbascoside), saw palmetto (serenoa repens), and flax seed (secoisolariciresinol diglucoside).

Treatment: Premature hair loss generally distorts and diminishes a man's self image in proportion to his degree of baldness, making him feel older and less attractive than his peers, especially when young and unattached. Optimal treatment includes not only physical repair of the scalp, but also emotional support and measures to enhance self esteem.

Three forms of physical treatment are effective: surgical reconfiguration of the scalp, drugs taken orally, and lotions applied topically.

Transplantation generally gives good results, since follicles retain their genetic programming to grow hair even after they are moved. Current procedures using smaller grafts give a more natural appearance than the larger plugs used a few years ago. The excision of bald scalp and stretching of hairy scalp is another surgical technique, sometimes used in conjunction with transplanting. But there is pain and inconvenience, and the cost runs to several thousands of dollars.

One oral drug, finasteride, was approved a few years ago. The 5-alpha-reductase inhibitor arrests hair loss by reducing DHT produced in the prostate. Half of drug users regrow some lost hair. Known side effects are minimal. A few men lose libido, but it returns when the drug is discontinued.

Many topical lotions have been touted, then debunked, including ascorbic acid, benzoic acid, jojoba oil, lanolin, sulphanilamide, tetracaine hydrochloride, and urea. Only three topical compounds have clinical, peer-reviewed, published studies behind them to prove their efficacy in retaining and regrowing hair. These are minoxidil, Aminexil SP94, and procyanidin B-2.

Of the products available over the counter or by prescription, one, Spectral.DNC-L, contains all three of these proven ingredients, plus a battery of auxiliary agents known to enhance their effectiveness: phytosterol 5-alpha-reductase inhibitors to suppress DHT, arginine to stimulate nitric oxide formation, adenosine to transfer energy, botanicals to combat fungal colonization and reduce sebum, retinol to calm inflamed tissue, vitamins and minerals to nourish follicles, and capsicum to stimulate them.

Nanosome encapsulation, a proprietary technology of DS Laboratories, causes the dermis to absorb Spectral.DNC-L deeper, where it can be more effective. Other formulas tend to sit up at the surface of the scalp, where there are no follicles.