

How to tell the difference between miniaturization, regrowth, and other hair problems:

<http://www.springer.com/cda/content...144854-c1.pdf?SGWID=0-0-45-1365011-p174551750>

DHT Blockers:

propecia/finasteride

Topical finasteride or Morr F

Saw Palmetto

Dutasteride

Reishi Mushroom

RU 58841

Spiroinolactone

beta-Sitosterol

Estrogen 17a (Alfatradiol)

Estrogen

Enzalutamide

Ketaconazol

Progesterone

Turosteride

Tagamet (Cimetidine)

Inocoterone

Flutamide (Euflex, Eulexin)

Diane-35

Casodex (Bicalutamid, ICI 176,334)

Azelex (Skinoren, Azeleic Acid)

Androcur (Cyproterone Acetate, CPA)

Growth Stimulators:

Minoxidil

Oral Minoxidil

Setipiprant

PRP w/w Acell

Low-Level Laser

Oral Biotin, Niacin, Vitamin D, Iron

Topical Caffeine

Brotzu Lotion (trinov)

Bimatoprost or anything with pge2 effects

Scalp Massage

DermaPen

NAD+

Tretinoin

Exercise for blood vessel health and no smoking

Nutrafol or Viviscal for marine extracts supposedly

Replicel?

Regenix?

Ibutamoren or mk-677

EGF serum

Cornus officinalis

Tempo (Tempol)

Tacrolimus (Fujimycin, FK506)

Pinacidil

Dilantin (Phenytoin)

Diazoxide

Cytadren (Aminoglutethimide)

Cyclosporin

Cromakalim (BRL 34915)

Buserelin (HOE 766)

Anti-inflammatories:

Green Tea Extract

Licorice extract

Salicylic Acid, Coal Tar, Miconazole

Honey, Aloe Vera

Low scalp pH balance (apple cider vinegar or baby shampoo)

Alternate Oral Zinc Gluconate, Magnesium, Iron

Topical Zinc Sulfate or Zix

Low stress

Fruit, Veggie, Fish Diet with a lot of protein (no grease low sugar)

Fish oil supplement for omega 3 and good cholesterol

Emu Oil, Castor Oil, Peppermint oil, Rosemary oil

Cold pressure

Antibiotic Cream

Sucralfate

Hydrocortisone

Cetirizine (Zyrtec)

CoQ10

Copper Peptides

Tricomin

Other:

Hair Transplant

Hair System

This Study shows what is needed to stop hair loss and grow hair:

<https://www.ncbi.nlm.nih.gov/pubmed/27552901>

Grow Hair:

Insulin-like growth factor 1 (IGF-1): https://en.wikipedia.org/wiki/Insulin-like_growth_factor_1

Vascular endothelial growth factor (VEGF):

https://en.wikipedia.org/wiki/Vascular_endothelial_growth_factor

Epidermal Growth Factor (EGF): https://en.wikipedia.org/wiki/Epidermal_growth_factor

Fibroblast Growth Factor 2 (FGF-2): https://en.wikipedia.org/wiki/Basic_fibroblast_growth_factor

Endothelial Nitric Oxide Synthase (eNOS): https://en.wikipedia.org/wiki/Endothelial_NOS

Wnt/ β -catenin signaling pathway: https://en.wikipedia.org/wiki/Wnt_signaling_pathway

prostaglandin E (PGE): https://en.wikipedia.org/wiki/Prostaglandin_E

prostaglandin F (PGF): https://en.wikipedia.org/wiki/Prostaglandin_F_receptor

How each performs:

Insulin-like growth factor 1 (IGF-1): <https://www.ncbi.nlm.nih.gov/pubmed/10673454>

Vascular endothelial growth factor (VEGF): <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC199257/>

Epidermal Growth Factor (EGF): <https://www.ncbi.nlm.nih.gov/pubmed/12714603>

Fibroblast Growth Factor 2 (FGF-2): <https://www.ncbi.nlm.nih.gov/pubmed/25685806>

Endothelial Nitric Oxide Synthase (eNOS): <https://www.ncbi.nlm.nih.gov/pubmed/18238792>

Wnt/ β -catenin signaling pathway: <https://www.nature.com/articles/s41598-018-32138-2>

prostaglandin E (PGE) and prostaglandin F (PGF): <https://www.ncbi.nlm.nih.gov/pubmed/17697149>

How to Increase:

Insulin-like growth factor 1 (IGF-1): <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947832/> and <https://en.wikipedia.org/wiki/Ibutamoren>

Vascular endothelial growth factor (VEGF): Boosted --> <https://www.ncbi.nlm.nih.gov/pubmed/12803882> --> <https://en.wikipedia.org/wiki/Lipopolysaccharide>

Epidermal Growth Factor (EGF): Immune System Interesting <https://www.nature.com/articles/s41598-018-30404-x> According to Wikipedia, Epidermal growth factor can be found in urine, saliva, milk, tears, and plasma. The production of epidermal growth factor has been found to be stimulated by testosterone. There's always been some debate about testosterone causing hair loss like DHT and then some disagree and say it helps hair growth. What if it stops helping hair growth and starts hurting hair when it no longer stimulates epidermal growth factor in the scalp for whatever reason?

Fibroblast Growth Factor 2 (FGF-2): Need to investigate this more

Endothelial Nitric Oxide Synthase (eNOS): <https://www.ncbi.nlm.nih.gov/pubmed/29806986>

Wnt/ β -catenin signaling pathway: <https://www.ncbi.nlm.nih.gov/pubmed/30213979> Morroniside is extracted from Cornus officinalis https://en.wikipedia.org/wiki/Cornus_officinalis

prostaglandin E (PGE) and prostaglandin F (PGF): Dinoprostone, alprostadil, Setipiprant, and maybe Cetirizine, latanoprost

Kill Hair:

5 α -reductase and dihydrotestosterone (DHT) == Stop with Finasteride, Dutasteride etc

transforming growth factor beta (TGF- β): <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513570/>

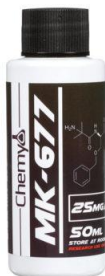
fibroblast growth factor 5 (FGF-5): <https://www.ncbi.nlm.nih.gov/pubmed/11779149> and <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5338843/> --> Isolates from the monoterpene family displayed efficacy in FGF5 inhibition in vitro

prostaglandin D2 (PGD2): <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3982925/> reduce inflammation as much as possible

Possible Treatments

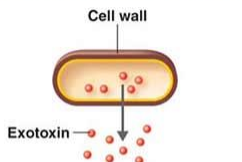
Hair Growth:

Ibutamoren or mk-677 - increase GH and (IGF-1), doesn't affect cortisol, newer drug, used in bodybuilding, could cause mental side effects



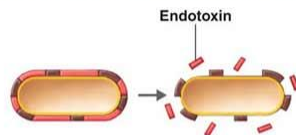
Endotoxins - <https://onlinesciencenotes.com/toxins-and-differences-between-endotoxins-and-exotoxins/> for Vascular endothelial growth factor (VEGF)

Differences Between Exotoxins and Endotoxins



(a) Exotoxins are proteins produced inside pathogenic bacteria, most commonly gram-positive bacteria, as part of their growth and metabolism. The exotoxins are then secreted or released into the surrounding medium following lysis.

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(b) Endotoxins are the lipid portions of lipopolysaccharides (LPSs) that are part of the outer membrane of the cell wall of gram-negative bacteria (lipid A; see Figure 4.13c). The endotoxins are liberated when the bacteria die and the cell wall breaks apart.

EGF serum - Said to speed wound recovery and stimulate skin growth. It is used in cosmetics for skin anti-aging.



Iron chelation therapy - healthy balance of hemoglobin and iron for Endothelial Nitric Oxide Synthase (eNOS)?



Cornus officinalis - Used in China, Japan and Korea as food and as a medicinal plant. protective effects on auditory cells, alleviate oxidative stress by increasing Wnt/ β -catenin signaling pathway.



Bimatoprost and or minoxidil - prostaglandin effect pge2

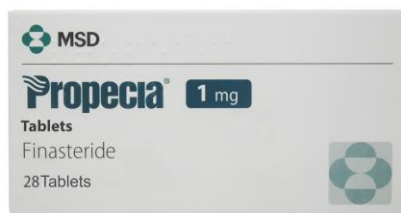


Kill hair:

Menthol - A monoterpenoid to inhibit fibroblast growth factor 5 (FGF-5). **Peppermint Oil** could be better
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4289931/>



Finasteride or other anti-androgens - To reduce DHT



Cetirizine - <https://www.ncbi.nlm.nih.gov/m/pubmed/28604133/> and <https://www.ncbi.nlm.nih.gov/m/pubmed/28604133/> reduce PGD2 levels and inflammation



Lemon - Contains hesperetin as its main flavonoid for inhibiting transforming growth factor beta (TGF-B)

