

Minoxidil Therapeutic Cheat Sheet

COMPILED BY: ADRIANNA GONZALEZ, MD • REVIEWED BY: ADAM FRIEDMAN, MD

TRADE NAME

- > Rogaine
- > Loniten
- > Minodyl

MECHANISM OF ACTION

- > The exact mechanism by which minoxidil improves alopecia is not fully understood. It is thought that minoxidil leads to increased oxygenation and production of growth factors around the hair follicle through vasodilation and increased production of vascular endothelial growth factor.² Additionally, minoxidil may activate potassium channels in hair follicles, shortening the telogen phase and prolonging the anagen phase. It may also have immunomodulatory effects via suppression of T cells, which may be beneficial in autoimmune hair disorders.³

FDA APPROVED FOR

- > Oral: hypertension
- > Topical: androgenetic alopecia

OFF-LABEL USES

- > Androgenetic alopecia (oral), chronic telogen effluvium, alopecia areata, lichen planopilaris, permanent chemotherapy-induced alopecia, monilethrix, traction alopecia, loose anagen syndrome, eyebrow hypotrichosis and scarring alopecias

DOSING

- > Androgenetic alopecia (oral), chronic telogen effluvium, alopecia areata, lichen planopilaris, permanent chemotherapy-induced alopecia, monilethrix, traction alopecia, loose anagen syndrome, eyebrow hypotrichosis and scarring alopecias

WARNINGS

- > Topical:
 - Women: 2% foam/solution twice daily or 5% foam/solution daily
 - Men: 5% foam/solution twice daily⁴
- > Oral: 0.25 to 5 mg⁵ once to twice daily. In regards to terminal hair count, higher doses of 5mg per day may be more efficacious than a dose of 0.25mg per day.⁶ However, higher doses may increase the risk of developing dose-dependent side effects such as hypertrichosis.⁷

SIDE EFFECTS

- > Irritation (topical)
- > Pruritus (topical)
- > Contact dermatitis (topical)
- > Change in hair texture (topical)
- > Shedding
- > Hypertrichosis: Normally appears within the first 3 months of therapy and may affect the face and body. Hypertrichosis is usually mild and can be managed with dose adjustments or hair removal.⁷
- > Lower extremity edema and facial edema
- > Weight gain
- > Postural hypotension
- > Dizziness
- > Tachycardia
- > Headaches
- > At higher doses, Acute pulmonary edema and pulmonary hypertension have been reported as possible adverse effects, although a direct relationship has not been established⁷

CONTRAINDICATIONS

- > Hypersensitivity to drug component
- > Pericardial effusion
- > Pheochromocytoma
- > Caution in patients with renal failure, severe hepatic impairment, congestive heart failure, tachycardia

SAFETY MONITORING

- > Lab monitoring is not required when oral minoxidil is used at dermatologic doses³
- > Oral minoxidil should be used cautiously in patients who are taking other medications that may affect blood pressure. In these cases, one must ensure that baseline blood pressure is within normal limits.

PREGNANCY

- > Possible risk of teratogenicity and hypertrichosis based on limited human data^{8,9}
- > Inadequate human data available to assess risk of taking minoxidil while lactating