

Topical Ketoconazole Therapeutic Cheat Sheet

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TRADE NAME^{7,8}

- > Kuric (ketoconazole cream, 2%)
- > Xolegel (ketoconazole gel, 2%)
- > Extina, Ketodan (ketoconazole aerosol foam, 2%)
- > Nizoral A-D (ketoconazole shampoo, 1%)
- > Nizoral (ketoconazole shampoo, 2%)

MECHANISM OF ACTION⁸⁻¹⁰

- > Inhibits lanosterol 14- α -demethylase, blocking the synthesis of ergosterol, a key structural component of fungal cell membranes.
- > Inhibits 5-lipoxygenase, decreasing the production of leukotrienes.
- > Inhibits 5- α -reductase, decreasing the production of DHT and sebum.
- > Inhibits hyperproliferation of keratinocytes.

FDA-APPROVED FOR¹⁻⁷

- > Kuric (ketoconazole cream, 2%) Seborrheic Dermatitis
 - > Pityriasis Versicolor
 - > Cutaneous Candidiasis
 - > Dermatophyte Infections (Tinea corporis, Tinea cruris, and Tinea pedis)
- > Xolegel (ketoconazole gel, 2%)
 - > Seborrheic Dermatitis
- > Extina, Ketodan (ketoconazole aerosol foam, 2%)
 - > Seborrheic Dermatitis
- > Nizoral A-D (ketoconazole shampoo, 1%)
 - > Dandruff
- > Nizoral (ketoconazole shampoo, 2%)
 - > Pityriasis Versicolor

OFF-LABEL DERMATOLOGIC USES^{8,11-13}

- > Androgenetic alopecia
- > Cutaneous leishmaniasis
- > Onychomycosis
- > Acne Vulgaris
- > Seborrheic blepharitis
- > Pityrosporum folliculitis
- > Tinea Nigra
- > White Piedra

DOSING¹⁻⁷

- > Ketoconazole 2% cream
 - > For the treatment of seborrheic dermatitis, it should be applied to affected areas twice daily for four weeks.
 - > For the treatment of pityriasis versicolor, cutaneous candidiasis, tinea corporis, and tinea cruris, it should be applied to the affected and immediate surrounding area once daily for two weeks. For tinea pedis, treatment duration should be extended to six weeks.
- > Ketoconazole 2% gel
 - > For the treatment of seborrheic dermatitis, it should be applied to the affected area once daily for two weeks.
- > Ketoconazole 2% foam
 - > For the treatment of seborrheic dermatitis, it should be applied to the affected area twice daily for four weeks.
- > Ketoconazole 1% shampoo
 - > For the treatment of dandruff, it should be applied to wet hair, lathered, and rinsed thoroughly every three to four days for up to eight weeks.
- > Ketoconazole 2% shampoo
 - > For the treatment of pityriasis versicolor, it should be applied to damp, affected skin and surrounding area, lathered, and left on the skin for five minutes before rinsing. One application should be sufficient.

WARNINGS AND PRECAUTIONS^{1-7,14}

- > Topical formulations of ketoconazole are not for ophthalmic use. Contact with the eyes should be avoided even with ketoconazole shampoo, as it can irritate the mucous membrane of the eyes.
- > Ketoconazole gel and foam formulations should not be used orally or intravaginally.
- > Ketoconazole cream contains a sulfite that can cause allergic reactions including anaphylactic symptoms and asthmatic episodes in individuals with sulfite sensitivity and thus should be avoided in these individuals.
- > Cases of allergic and photoallergic contact dermatitis to topical ketoconazole have been reported in the literature. If such reactions occur, ketoconazole should be discontinued.
- > Ketoconazole foam and gel formulations contain flammable contents. Fire, flames, and smoking should be avoided during and immediately following application.

SIDE EFFECTS

The most common side effects of topical ketoconazole include pruritus, dry skin, and burning sensation, which occurred at a low rate of 5-32% in a systematic review of 40 randomized clinical trials, including 4566 patients.

DRUG INTERACTION

There are no known drug interactions with topical ketoconazole.

CONTRAINDICATIONS¹⁻⁷

Contraindicated in individuals with known hypersensitivity to ketoconazole or any excipient ingredients in the topical formulations.

PREGNANCY AND BREASTFEEDING^{1-8,15}

- > Ketoconazole is pregnancy risk category C
- > No adequate and well-controlled studies of topical ketoconazole in pregnant women exist.
- > Plasma concentrations are not detectable after application of ketoconazole 2% cream or after chronic use of ketoconazole 2% shampoo.
- > Topical ketoconazole should only be used in pregnant women if the potential therapeutic benefit justifies the potential risk to the fetus.
- > It is unknown whether topical ketoconazole results in enough systemic absorption to be excreted in breast milk.
- > Caution should be taken when using topical ketoconazole in nursing mothers.
- > Application of topical ketoconazole on the breast or nipples should be avoided in nursing mothers to prevent potential oral ingestion by the infant.

MONITORING

- > None

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