

## Androgenetic Alopecia Treatment Options for Women

Women are in a "Catch-22" position when it comes to drug treatments for androgenetic alopecia. While many drugs may work to some degree for some women, doctors are reluctant to prescribe them, and drug companies aren't exactly falling over themselves to test existing or new drugs specifically for their ability to prevent and treat female pattern baldness. Physicians are reluctant to use systemic treatment (a pill or other form of internal treatment that affects your entire system) unless they know that the hair loss is due to an excess of androgen in the system or a sensitized "over-response" to the so-called "normal" amounts of androgen in the system. That's because these systemic treatments may lower the body's androgen levels. Therefore, physicians often choose topical treatments (those that are applied directly to the scalp). The best results from treatment happen when you begin treatment as soon as possible after the hair loss begins because prolonged androgenetic alopecia may destroy many of the hair follicles. The use of anti-androgens after prolonged hair loss will at least help prevent further hair loss and encourage some hair regrowth from those follicles that have been dormant but are still viable. Stopping treatment will result in the hair loss resuming if the androgens aren't kept in check in some other way. Maintaining your vitamin and mineral levels helps while you're on anti-androgen medications.

Currently there is only one FDA approved treatment for female pattern hair loss. Below you will find a list of treatments currently being used to treat hair loss in women. Some of these drugs have not been approved by the FDA for this particular application, however they have all been approved for other applications and are used "off label" to treat hair loss. The effectiveness of these agents and methods vary from person to person, but many women have found that using these treatments have made a positive difference in their hair and their self-esteem.

**Minoxidil 2% Topical Treatment** Women with diffuse androgenetic alopecia can use minoxidil and it actually seems to be more effective for women compared to men. The makers of minoxidil recommend women only use the 2% concentration of minoxidil and not 5%. The makers of minoxidil have not received FDA approval for promoting 5% minoxidil or minoxidil extra strength for use by women. Many dermatologists do prescribe minoxidil 5% for women with androgenetic alopecia if used under their supervision. Some small clinical trials have been conducted on 5% minoxidil for androgenetic alopecia in women showing that indeed the 5% solution is significantly more effective in both retaining and regrowing hair than the 2 % solution.

In clinical studies of mostly white women aged 18-45 years with mild to moderate degrees of hair loss, the following response to minoxidil was reported: 19% of women reported moderate hair growth after using minoxidil for 8 months (19% had moderate regrowth; 40% had minimal regrowth). This compares with 7% of women reporting moderate hair regrowth after using the placebo, the liquid without the active ingredient in it, for 8 months (7% had moderate regrowth, 33% had minimal regrowth).

**Aldactone / Spironolactone** Spironolactone or the more popular brand name Aldactone is in a class of drugs called potassium-sparing diuretics (water pill). It is used to reduce the amount of fluid in your body without causing the loss of potassium. It is also used to treat hypertension (high blood pressure) and edema (swelling) and used to treat potassium deficiency and hyperaldosteronism (a hormonal disorder). Spironolactone is an antiandrogen that works in two ways. Primarily it slows down the production of androgens in the adrenal glands and ovaries. Secondly it blocks the action of androgens in part by preventing dihydrotestosterone from binding to its androgenetic receptor.

**Tagamet / Cimetidine** Cimetidine sold under the brand name Tagamet, belongs to a class of histamine blockers used mainly to treat gastrointestinal ulcers. The histamine blocking action prevents the stomach from producing excess acid, allowing the body to heal the ulcer. Cimetidine also has a fairly powerful anti-androgenic effect and has shown to block dehydrotestosterone from binding the follicle receptor sites. Cimetidine has been used to treat hirsutism in women (excess facial hair growth) and has been studied in women with androgenic alopecia showing promising results. Because of the high doses needed to achieve it's hair raising results, men should not take cimetidine to treat their hair loss due to possible feminizing effects including adverse sexual side effects.

**Estrogen/Progesterone** Also known as hormone replacement therapy (HRT) and commonly prescribed at menopause, estrogen and progesterone pills and creams are probably the most common systemic form of treatment for androgenetic alopecia for women in menopause or whose estrogen and/or progesterone are lacking for other reasons.

**Oral Contraceptives** Since birth control pills decrease the production of ovarian androgens, they can be used to treat women's androgenetic alopecia. Keep in mind, however, that the same cautions must be followed whether a woman takes contraceptive pills solely to prevent contraception or to treat female pattern baldness. For example, smokers over thirty-five who take "the pill" are at higher risk for blood clots and other serious conditions. Discuss your medical and lifestyle history thoroughly with your doctor. Contraceptive pills come in various hormonal formulations, and your doctor can determine which is right for your specific needs, switching pills if necessary until you are physically and emotionally comfortable with the formulation. Note: *Only low androgen index birth control pills should be used to treat hair loss. High androgen index birth control pills actually contribute to hair loss by triggering it or enabling it once it's been triggered by something else.*

**Nizoral/Ketoconazol** Available as a topical treatment by prescription, Ketoconazole is currently used as an antifungal agent in the treatment of fungal infections. It also has anti-androgenic effects and can cause a reduction in the production of testosterone and other androgens by the adrenal gland and by the male and female reproductive organs (in women, the ovaries). Because of this action, it can be used to help treat hair loss. Nizoral shampoo contains 2 percent Ketoconazole and is prescribed not only for the treatment of scalp conditions, but also in combination with other treatments for androgenetic alopecia. A 1 percent version is now available over-the-counter, but it may not be as effective as the 2 percent prescription strength. There are no significant side effects.

**Propecia/Proscar** The drug finasteride inhibits the enzyme 5-alpha reductase, thereby inhibiting the production of prostate-harming, follicle killing DHT. It was first marketed to treat the prostate under the brand name Proscar in 5 mg pills. In 1998, a 1 mg version with the brand name Propecia entered the market as the first pill approved by the FDA for men's hair loss. It works quite well for most men in both preventing hair loss and triggering regrowth, and it may work for some women, although women must not take it if they are pregnant and must not get pregnant while on the drug because of the risk of birth defects in a male fetus. Less than 2 percent of men experience transient sexual side effects including erectile and libido difficulties. In women these side effects do not occur.

Good resource: American Hair Loss Organization: <http://www.americanhairloss.org>