

# Ultimate Guide to Managing Hair Loss in Women with Diabetes: Causes, Solutions, and Self-Care Strategies

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If you've noticed that there seem to be more strands of hair in your brush, a widening of the part at the top of your head, or just overall thinning, you're not alone. More than 50% of women will experience noticeable hair loss, and having diabetes may pose additional risks and challenges to women dealing with hair loss.

Hair loss in women is more common during postmenopause. However, it may occur at any age after puberty. It's essential to address hair loss as soon as possible. Early treatment is critical because certain types of hair loss are not reversible. However, with immediate treatment, significant permanent hair loss may usually be averted.

This comprehensive guide shares practical, science-backed strategies to help women with diabetes effectively manage hair loss, including dealing with the unique challenges that diabetes provides, in order to promote healthier, fuller hair.

# Understanding Hair Loss

## Types of Hair Loss in Women

Hair loss in women is deeply personal and often very distressing. Before being able to treat it appropriately, it's essential to understand what type of hair loss you may be experiencing.

Hair loss types may be broken down in several different ways. First, it's helpful to determine broadly if it is a scarring vs non-scarring type of hair loss.

A **scarring** (or cicatricial) type of hair loss is permanent. With this type of hair loss, the follicular orifice (the pore) is not visible under examination. This usually means it has closed off permanently, not allowing hair to regrow.

**Nonscarring** (or noncicatricial) hair loss is typically reversible if treated early.

Consult with your doctor for a proper diagnosis.

In this section, we'll break down the most common types of hair loss.

## Scarring Hair Loss

### Central centrifugal cicatricial alopecia

Central centrifugal cicatricial alopecia first presents as a patch of hair thinning that expands from the center of the lesion in a circular pattern. The hair follicles are typically permanently damaged or gone.

The tiny openings or pores from which hair grows (follicular openings) are not visible. It also presents with additional symptoms such as bumps, tenderness, redness, and itching.

## Nonscarring Hair Loss

### Androgenetic alopecia (female pattern baldness or female pattern hair loss (FPHL))

The most common type of hair loss in women is female pattern hair loss (FPHL), also known as androgenetic alopecia. Androgenetic alopecia usually has a gradually

progressive course with diffuse hair thinning, mainly of the vertex crown area, without much affecting the frontal hairline.

### Telogen effluvium

With Telogen effluvium, you may notice that clumps of hair come out in the shower or on your hairbrush. This is typically self-limited as it is associated with physiological or emotional stress. Chronic stress and blood sugar fluctuations associated with diabetes may contribute significantly to hair loss.

### Alopecia areata

Alopecia areata occurs suddenly as a patchy hair loss and is often accompanied by broken hair shafts.

Alopecia areata is an autoimmune disorder that is also sometimes associated with other autoimmune disorders, such as type 1 diabetes.

### Traumatic alopecia

Traumatic Alopecia, including traction alopecia, is common in women whose hairstyles maintain a tight pull on the hair shafts. Tight hairstyles such as buns, tightly braided hair, or sleek ponytails put repeated stress on the scalp and can lead to traction alopecia. In general, if your hairstyle causes you to feel any pain, then it's too tight.

This type of alopecia is even seen on the back of the scalp of young infants who sleep on their backs.

## Common Symptoms

The most common symptoms of hair loss described by women are:

- Gradual thinning on top of the head
- A widening part
- Circular or patchy bald spots
- Sudden loosening of hair

## Causes of Hair Loss

Hair loss in women can occur for a variety of reasons, ranging from genetic, metabolic, and hormonal shifts to stress. A clear understanding of the root cause should be the first step toward effective management.

Some possible causes of hair loss include:

### Genetic Factors

Family history of hair loss, androgenetic alopecia, or female-pattern baldness, is a hereditary condition that occurs with aging.

### Hormonal Changes

Hormonal changes due to menopause, pregnancy, and thyroid issues may cause permanent or temporary hair loss in women.

### Medical Conditions

- **Autoimmune diseases:** Alopecia areata is an autoimmune disease that develops when your immune system mistakenly attacks your hair follicles. It is also sometimes associated with other autoimmune disorders, such as type 1 diabetes.
- **Infections:** Scalp infections, such as ringworm, can lead to hair loss.
- **Mental Health disorders:** Trichotillomania is a hair-pulling disorder, a type of impulse control disorder. Hair loss occurs from repeated urges to pull or twist hair until it breaks off.
- **Medications:** Hair loss is a possible side effect of several medications. Consult with your pharmacist or doctor to see if your medications may be contributing to your hair loss.

### Unique Challenges for Diabetic Women Experiencing Hair Loss

Insulin resistance, metabolic syndrome, and obesity, all of which are associated with diabetes, have been linked to hair loss.

Diabetes is accompanied by poor circulation, which can reduce the amount of oxygen and nutrient delivery to the hair follicles, contributing to hair loss.

Also, a large cohort study of African American women showed that type 2 diabetes was associated with a 68% risk of severe central scalp hair loss. So, especially African American women with diabetes may have an even greater risk of hair loss.

Additionally, some diabetes medications may have side effects that include hair loss, either directly or through nutrient depletion (i.e., vitamin B-12 depletion).

## Lifestyle Factors

Lifestyle factors may have a significant impact on hair loss. These include:

- **Stress:** Telogen effluvium is a type of hair loss that occurs from severe stress or changes to the body.

As already mentioned, chronic stress and blood sugar fluctuations associated with diabetes may contribute significantly to hair loss.

Hair growth occurs in stages (growth, resting, and shedding phases).

Telogen effluvium affects hair growth while it is in the growth phase and causes about 70% of the hair currently in the growth phase to jump into the shedding phase, which causes hair loss.

- **Poor diet:** Deficiencies in nutrients such as iron, vitamin D, zinc, biotin, copper, and the B vitamins are thought to contribute to hair loss. Also, very low-calorie diets, especially those low in protein and iron, may lead to hair growth abnormalities.
- **Hairstyling practices:** Wearing tight hairstyles or putting repeated stress on your scalp can lead to traction alopecia.

## Diagnosis and When to See a Doctor

### Self-Assessment Tips

Start paying close attention to your hair loss. Keeping a simple hair diary or log can help you quickly notice patterns and changes associated with your hair loss.

As you're keeping your hair log, jot down quick notes as well, such as if anything has recently changed in your life (i.e., are you having any blood sugar fluctuations?, did you recently start any new medications?, what pattern is the hair loss showing? are there any major life events affecting you recently?, are you noticing any other symptoms lately?).

Monitor this information alongside your blood sugar log, as this may help you and your doctor spot any patterns linked to your blood glucose levels.

### Professional Diagnosis

It's a good idea to see your doctor as soon as you notice hair thinning or a widening of your part. Female pattern hair loss is mostly treatable if done early.

Your doctor will usually take down a thorough family history and conduct a full assessment. They'll ask about your diet, medical and medication history, any supplements you take, stress levels, and your hair care practices. A physical examination of your scalp and any necessary blood tests will also be conducted.

In addition, a biopsy by scraping your scalp or pulling a few hairs from your scalp may be taken. This can help your doctor determine if an infection or something else may be causing your hair loss.

They may also conduct light microscopy to help determine if there are any disorders of the hair shaft.

## Treatment Options

### Medications

Medication treatment of FPHL is available as topical, oral, and injectable medication options.

#### Main Topical Medications

- **Minoxidil**

Also known as Rogaine.

It's available as 2% and 5% strengths. Liquid and foam formulations are available.

How does it work? Minoxidil is the only FDA approved topical medication for the treatment of FPHL. It's thought to promote hair growth by enlarging shrunken hair follicles, extending the growth phase of hair, and shortening the resting phase.

Some possible side effects are itching, dryness, redness, scaling of the scalp, and unwanted facial hair growth.

Treatment needs to be continued indefinitely to maintain a response. Temporary additional hair shedding may occur in the first 2-8 weeks of treatment and should not be a cause for stopping treatment.

- **Ketoconazole 2% Shampoo**

Also known as Nizoral.

How does it work? It is an antifungal medication that can treat fungal infections of the scalp, creating a healthier environment for hair growth. It reduces inflammation and acts as an androgen-receptor antagonist to help reduce androgen, which is correlated with hair loss in some women.

Some possible side effects are itching and dry scalp, scalp oiliness, or hair dryness. It may be especially beneficial for women with FPHL, especially in cases with underlying hyperandrogenism. Effectiveness in FPHL remains uncertain; more robust studies evaluating efficacy for FPHL are needed.

- **Topical Finasteride**

Higher levels of dihydrotestosterone (DHT) are associated with FPHL, and topical finasteride may help by blocking DHT.

The use of topical finasteride combined with topical minoxidil solution was found to be effective in FPHL.

Compounded topical Finasteride may be a good option for the treatment of FPHL in women who didn't respond well to minoxidil or due to intolerable side effects to oral medications used to treat FPHL.

Some possible side effects include itching, burning, and redness.

- **Topical tretinoin**

Also known as Retin-A.

In combination with minoxidil, it has shown some promise in the treatment of FPHL.

- **Topical anthralin:** Topical anthralin appears to be a reasonable option for severe FPHL. In a study of 68 patients, it took about 23 weeks on average for patients to have a cosmetic response.

It's an immunomodulating agent. It may stimulate hair growth, but it does not prevent hair loss.

Approximately 25% of patients have cosmetically acceptable results within 6 months.

It may be useful in combination with topical minoxidil when there is more than 50% scalp involvement

- **Topical Clascoterone**

Available as a 5% solution. It's a topical androgen receptor inhibitor.

Some possible side effects include mild dryness, redness, and excessive body hair growth.

In an exploratory study, hair growth was higher in patients using clascoterone vs topical minoxidil.

#### Main Oral Medications

- **Finasteride**

Also known as Propecia.

Available as 1mg and 5mg tablets. The 1mg tablets are mainly what is used to treat FPHL.

How does it work? It is the only FDA-approved oral medication for FPHL. Finasteride decreases the production of dihydrotestosterone (DHT), an androgen hormone associated with hair loss. It may reduce scalp dihydrotestosterone levels by approximately 60% to 70%, depending on the dosage.

Some possible side effects are headache, menstrual irregularities, dizziness, and increased body hair growth. Finasteride may also increase the risk of high blood sugar levels.

Hair regrowth can be lost after the medication is discontinued.

- **Spironolactone**

Also known as Aldactone.

How does it work? It blocks androgen receptors and stops the ovaries from producing more androgen. It is not FDA-approved to treat FPHL, but it is very commonly used as it has a pretty good safety profile.

Some possible side effects are low blood pressure, frequent urination, menstrual irregularities, and high potassium levels. Spironolactone may worsen glycemic control in



some patients, but the evidence is unclear. Diabetic patients may be at an increased risk of developing high potassium levels while on spironolactone. Additional monitoring may be necessary in diabetic patients taking Spironolactone.

Treatment with Spironolactone can be especially beneficial in women who also have hirsutism.

- **Dutasteride**

In a study, Dutasteride was noted to be superior to Finasteride for the treatment of FPHL. However, more studies are necessary to determine its real safety and effectiveness.

Dutasteride may increase the risk of high blood sugar levels.

#### Injectable Medication Treatment

- **Corticosteroid Injections**

Corticosteroid injections are mainly used to treat alopecia areata. However, this treatment may also be beneficial in treating hair loss caused by other immune diseases and conditions.

It is beneficial in treating severe, acute, and rapidly progressive alopecia areata.

Injections are typically given at 4-week intervals for about 6 months or longer. Treatment may need to be continued to prevent relapse.

Adverse effects include acne, abnormal menses, weight gain, and sleep disturbances. Also, corticosteroid injections may raise blood glucose levels, and so additional monitoring and diabetes medication therapy adjustments may be necessary while undergoing treatment with corticosteroid injections.

#### Procedures

- **Platelet-rich plasma (PRP)**

This preparation is custom-formulated with your body's plasma, growth factors, and cytokines, all of which aid in hair regrowth. They are combined to create a personalized treatment just for you.

A randomized controlled trial reported an increased hair density using PRP. Preliminary results show that it may prove advantageous in hair regrowth.

Side effects include redness and pain at the injection site and pinpoint bleeding. It is more often used in the early stages of FPHL because intact hair follicles are needed for the success of this treatment.

Treatment must be continued long-term to sustain hair growth.

- Laser therapy

Currently available laser treatment options include low-level laser therapy and fractional laser therapy.

#### Low-level laser therapy (LLLT)

Low-level laser therapy (LLLT) is FDA-approved to treat pattern hair loss. We're not exactly sure how it works to improve hair loss, but it may help by waking up hair follicle cells, boosting blood flow to the scalp, encouraging healthy cell activity and growth, and reducing inflammation that could be affecting hair follicles.

There are several options available for at-home use, such as the HairMax LaserComb, which is a hand-held low-level laser.

Low-level laser therapy (LLLT) is usually safe and easy to tolerate. Some people may experience minor side effects like scalp sensitivity, a tingling or prickling feeling, or mild skin irritation, such as small itchy bumps.

#### Fractional laser therapy

Fractional laser therapy is done at the dermatologist's office.

It is a much stronger laser and may aid in the delivery of medication such as minoxidil and PRP in patients with FPHL.

- Hair transplant surgery

Hair follicles can be transplanted from an area of the scalp that is not affected, mainly from the back of the head, to affected areas to create a permanent improvement in hair coverage.

When it comes to hair transplants, using minigrafts of transplanted hair provides a more cosmetically pleasing outcome than using large plugs of transplanted hair at a time.

It's important to note that not all women with FPHL will be good candidates for hair transplantation. For those who are good candidates, multiple transplants are usually required.

Side effects from hair transplants may include pain, facial swelling, scarring, inflammation of the hair follicles, tingling, and telogen effluvium (temporary hair loss) at the operation site.

A note about diabetic patients undergoing procedures

Diabetic patients undergoing procedures may be at an increased risk of delayed wound healing, infections, and blood sugar fluctuations. Therefore, careful monitoring during and after procedures may be necessary.

To help prevent complications, ensure that your blood sugar levels are within the target range advised by your doctor before undergoing any procedure.

## Alternative and Natural Remedies

- **Essential oils**

Cedarwood, lavender, thyme, and rosemary essential oils have been used anecdotally for over 100 years to treat hair loss.

It's important to use essential oils appropriately. Follow the package instructions on how to use them.

They should usually be mixed with a carrier oil and only applied topically to the scalp.

- **Dietary supplements**

In certain cases, the cause of hair loss may simply be due to nutrient deficiencies.

Mainly, nutrients such as iron, vitamin B12, folic acid (vitamin B9), biotin (vitamin B7), and vitamin D have been linked to contributing to hair loss. Vitamins A, C, E, Selenium, and Zinc also play an important role in hair loss.

Iron plays a critical role in getting oxygen to your hair follicles to promote hair growth.

However, too much iron may be toxic.

Too much vitamin A may also be toxic.

Additionally, taking too much of certain supplements, such as vitamin A and selenium, may lead to an increase in hair loss.

Most people can obtain all of the necessary nutrients needed for proper hair growth through healthy, well-balanced nutrition.

Consult with your doctor regarding which vitamins and supplements are appropriate for you to supplement with.

- **Scalp Massage**

Scalp massage has been shown to induce mechanical stress on cells that play a crucial role in hair growth. Hair thickness increased following standardized scalp massage in a study.

- **Microneedling**

Microneedling is a minimally invasive procedure involving small wounds with medical-grade needles.

Clinical studies demonstrate that it may work well in addition to other standard treatment options available for FPHL. More studies may be needed to help determine just how beneficial it may be.

- **Acupuncture**

Acupuncture may be beneficial for several types of alopecia.

#### Precautions for Diabetic Patients Using Alternative Remedies

Extra caution should be used by patients with diabetes when implementing anything that may cause any kind of mechanical stress, such as scalp massages, microneedling, and acupuncture, due to impaired wound healing and infection susceptibility that may occur with diabetes. Consult with your doctor to see if these alternative remedy options are right for you.

## Prevention and Management

There are often ways to help manage hair loss and reduce daily shedding.

### Stabilize Blood Sugar Levels

Maintaining stable blood sugar levels is essential for women with diabetes, as this may play a strong positive role in both the prevention and management of hair loss.

Speak with your doctor and make sure that you clearly understand what your target blood sugar ranges are and keep your blood glucose levels within range as much as possible.

Follow your doctor's prescribed medication and lifestyle regimen to manage your blood glucose levels.

## Healthy Hair Care Practices

- Gentle washing, brushing, and styling: Avoid hairstyles that pull your hair. Use gentle shampoos and be gentle to your hair when you are washing, towel drying, brushing, and styling it.
- Avoid excessive heat and chemical treatments as much as possible.

## Balanced Diet

Nutrients are essential for hair health. Eat a well-balanced diet that works for you and helps keep your blood sugar under control.

Most people can obtain all the necessary nutrients to maintain a healthy head of hair from their diet alone.

When necessary, you may be able to take some of the supplements that we discussed above.

Make sure that you are getting enough calories, protein, and iron from your diet.

## Stress Management

Find ways to reduce and cope with stress that work well for you and that you can be consistent with.

This may include a simple morning routine where you wake up, drink water, get 10 minutes of exercise, and meditate for 5 minutes in the morning before getting to work.

Some people find that even a very informal journal practice, where you just take at least 5 minutes to jot all your thoughts on paper, can help to clear your head and reduce stress.

Also, be sure that you are intentional about getting enough sleep every single day.

## Coping with Hair Loss

### Emotional Support

Hair loss can be extremely distressing, adding yet another emotional weight on top of the challenges that come with living with diabetes.

Take action and seek emotional support as soon as you need it. Some patients find that talking to others helps them better cope with hair loss.

- **Talking to friends and family:** If you already have a community that supports you, reach out to them.
- **Join support groups:** Joining support groups is a great way to tap into a healing community where everyone can relate and better cope.

### Styling Tips

While undergoing treatment or if treatment fails, remember that you still have nonmedical options to manage the appearance of hair loss.

- **Hairstyles to cover thinning areas:** You can style your hair in a way that makes the appearance of thinning hair less obvious.

For example, strategically parting hair at a specific area may help to cover a balding area.

Gently teasing hair is another good way to give the appearance of fuller hair.

- **Use of wigs and hairpieces:** Hair extensions, wigs, or other hair pieces can give the illusion of fuller hair.
- **Other cosmetic aids:** There are scalp colorants that can help reduce the color contrast from hair to scalp. These are available as powders, lotions, and hair sprays, and they work to camouflage your scalp.

## Hair Transplants

Keep in mind that hair transplants may be a viable option to help improve your appearance and self-confidence.

## The Bottom Line

Hair loss can deeply affect your confidence and emotional well-being, especially if you're already dealing with the daily challenges that come with managing diabetes. The good news is that there are several treatment and management options available.

The first step is to see your doctor as soon as you notice hair loss to understand the root cause. Some types may be reversible, while others are not, so starting treatment early can make a real difference in preserving most of your hair.

Your doctor can help determine the best treatment for your particular type of hair loss in order to avoid costly missteps with the wrong treatments.

While no single solution works for everyone, combining diabetes management with targeted hair loss treatment and care is often the most effective path for women dealing with both hair loss and diabetes.

Several medical and nonmedical options can help you effectively manage your hair loss. A comprehensive, personalized approach can help you not only care for your hair but also support your overall health and well-being.

If you're a woman living with diabetes, know that you're not alone. With the right support and care, managing hair loss is absolutely within reach.

*Disclaimer: This article is for informational purposes only and is not a substitute for professional medical advice, diagnosis, or treatment. Always talk to your doctor or a qualified healthcare provider before making decisions about your health or starting any new treatment.*

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