

HIJAB AND HAIR CARE



By: Zahra Haq
Second year medical student, Queen's University

Worries about hair loss are a common concern for women who cover their hair, such as those who wear the Hijab (religious attire worn by some Muslims). While the hijab itself does not cause hair loss, practices surrounding the hijab and covering of skin can create an environment of poor hair quality, excessive pressure and traction, all of which can contribute to excess hair loss.

NORMAL HAIR LOSS

While it may seem like you are losing too much hair from wearing the hijab, this may only seem excessive due to not shedding hair throughout the day. Hair loss of 50-150 strands a day can be considered normal [1], and this typically happens throughout the day. As one's hair may be tied under the hijab all day, hair loss may look significant upon its removal, but this very well might be in the range of normal! Large bald spots, chunks of hair falling out or patchiness are all signs that you may be losing more hair than normal.



HAIR CARE PRACTICES

It is possible to engage in hair care practices that encourage hair loss. Tightly wrapped hair styles under the hijab may cause traction alopecia - a condition leading to hair loss where the hair is consistently pulled [2-3]. Traction alopecia is most common with frequent use of tightly wrapped buns, braids or pigtails [2]. To prevent traction alopecia, avoid tight or pulled hairstyles or styles that result in headaches or pain felt in your scalp. Traction alopecia, in its early stages, can be reversed with cessation of tight hair styles [3]. Consult a dermatologist to see what treatments may be suitable for you, particularly if you do not notice improvement at the site of traction alopecia within a few months of pain-free, gentler hairstyling [3].

LONG-TERM HAIR LOSS

Hair loss can also be a sign of other health conditions or deficiencies. If you are concerned about excessive hair loss after following preventative methods, see your primary care provider or dermatologist. The two most common causes of hair loss are androgenetic alopecia, also known as male or female pattern baldness, and telogen effluvium. Androgenetic alopecia is related to an excess in hormones known as androgens [4]. This occurs without any other underlying diseases or deficiencies and is treated with blocking the actions of androgens. Telogen effluvium is caused by any condition or situation (i.e. stress, fever, surgery) that results in more hair follicles within the telogen phase (also known as 'club hairs') of hair growth [4]. The hair loss begins 8-12 weeks after the insult and resolves within a few months without intervention [4]. Hair loss can however be caused by imbalances in hormones, such as with thyroid imbalances [5] or as found in polycystic ovarian syndrome [6]. Hair loss could also be due to deficiencies in nutrients, especially vitamin D. Vitamin D deficiency is theorized to increase hair loss [7], and this is likely to be more prevalent in Muslim women observing the hijab. Recent literature has demonstrated that Muslim women observing the hijab are more likely to have a Vitamin D deficiency [8-9], likely due to reduced skin exposure to the sun.



[1] L. Xu, K. X. Liu, and M. M. Senna, "A practical approach to the diagnosis and management of hair loss in children and adolescents," *Frontiers in Medicine*, 2017.

[2] V. Billero and M. Miteva, "Traction alopecia: The root of the problem," *Clinical, Cosmetic and Investigational Dermatology*, 2018.

[3] C. Akingbola and J. Vyas, "Traction alopecia: A neglected entity in 2017," *Indian J. Dermatology, Venereol. Leprol.*, 2017.

[4] C. Thiedike, "Alopecia in Women," *Am Fam Physician*. 2003 Mar 1;67(5):1007-1014.

[5] D. N. Doshi, M. L. Blyumin, and A. B. Kimball, "Cutaneous manifestations of thyroid disease," *Clin. Dermatol.*, 2008.

[6] E. Carmina et al., "Female Pattern Hair Loss and Androgen Excess: A Report from the Multidisciplinary Androgen Excess and PCOS Committee," *Journal of Clinical Endocrinology and Metabolism*, vol. 104, 2019.

[7] M. A. Novak and J. S. Meyer, "Alopecia: Possible causes and treatments, particularly in captive nonhuman primates," *Comparative Medicine*, 2009.

[8] R. C. I. Ojah and J. M. Welch, "Vitamin D and musculoskeletal status in Nova Scotian women who wear concealing clothing," *Nutrients*, 2012.

[9] Hatun S, Islam O, Cizmecioglu F, et al. Subclinical vitamin D deficiency is increased in adolescent girls who wear concealing clothing. *J Nutr.* 2005.

RESTORE YOUR HAIR HEALTH

while wearing hijab



Author: Shaimaa Helal
Third year medical student, Queen's University

While hijab itself does not damage your hair, many practices around the hijab may. The first step in restoring your hair health is identifying any underlying deficiencies or hormone imbalances (ex. iron- deficiency anemia, polycystic ovarian syndrome or thyroid dysfunction) and any practices that may be damaging your hair. Reversing these underlying causes is critical in both restoring and maintaining the health of your hair. If you are concerned about hair loss/ thinning, make an appointment with your family doctor to discuss potential bloodwork and possible assessment by a dermatologist.

PART 1: PREVENTING FURTHER DAMAGE

Fabric Matters



Synthetic fabrics like nylon and polyester are more likely to cause friction and mechanical breakage. These synthetic materials are also thought to generate an electrostatic charge that inhibits hair growth [1]. Natural fibers, like cotton, are gentler on the hair. Wear a cotton underscarf when wearing a synthetic fabric.

Avoid the 'wash and wrap'

Wet hair is more likely to be damaged by mechanical breakage, such as rubbing from harsh hijab fabrics [2]. Wrapping your hair up tightly in a bun and then putting on a hijab makes your hair strands more prone to breakage.



Let it loose

Keeping your hair tied up puts tension on your roots that if strong enough can even lead to hair loss [3]. When you come home, let your hair loose and massage your scalp. Scalp massages improve circulation to the hair and help release sebum – an oil that gives your hair its tensile strength. Scalp massages in men have interestingly been shown to increase hair thickness [4].

Change your part

Changing how you part your hair under your hijab can help avoid putting tension on the same areas. This helps avoid a condition known as traction alopecia which arises from repeated tension in the same area [3].



Get some Supplements

The role of supplements, in particular Vitamin D and Zinc, has been explored for treatment of hair loss. The role of Vitamin D deficiency in hair loss is not yet fully understood and based on data from animal models and observational studies [5-6]. However, vitamin D deficiency is common among hijabi women, particularly those who live in more northern communities [7]- [9]. Integrating Vitamin D into your diet (yogurt, milk, salmon and other foods) or taking a supplement may also help in certain populations – talk to your doctor about this. The role of Zinc supplementation has not been proven to help with hair loss [10].



Inspiration taken from voilechic writer, Yusra S.



[1] L. Xu, K. X. Liu, and M. M. Senna, "A practical approach to the diagnosis and management of hair loss in children and adolescents," *Frontiers in Medicine*, 2017.

[2] V. Billero and M. Miteva, "Traction alopecia: The root of the problem," *Clinical, Cosmetic and Investigational Dermatology*, 2018.

[3] C. Akingbola and J. Vyas, "Traction alopecia: A neglected entity in 2017," *Indian J. Dermatology, Venereol. Leprol.*, 2017.

[4] C. Thiedike, "Alopecia in Women." *Am Fam Physician*. 2003 Mar 1;67(5):1007-1014.

[5] D. N. Doshi, M. L. Blyumin, and A. B. Kimball, "Cutaneous manifestations of thyroid disease," *Clin. Dermatol.*, 2008.

[6] E. Carmina et al., "Female Pattern Hair Loss and Androgen Excess: A Report from the Multidisciplinary Androgen Excess and PCOS Committee," *Journal of Clinical Endocrinology and Metabolism*, vol. 104, 2019.

[7] M. A. Novak and J. S. Meyer, "Alopecia: Possible causes and treatments, particularly in captive nonhuman primates," *Comparative Medicine*, 2009.

[8] R. C. I. Ojah and J. M. Welch, "Vitamin D and musculoskeletal status in Nova Scotian women who wear concealing clothing," *Nutrients*, 2012.

[9] Hatun S, Islam O, Cizmecioglu F, et al. Subclinical vitamin D deficiency is increased in adolescent girls who wear concealing clothing. *J Nutr.* 2005.

RESTORE YOUR HAIR HEALTH

while wearing hijab



PART 2: RESTORATION

A number of clinically proven treatments to restore hair loss exist. The use of topical **Minoxidil** and systemic **anti-androgens** has great evidence for the treatment of androgenetic alopecia [1]. Many supplemental treatments have become popularized in the media. A summary of what is currently known about these treatments are below:

Biotin

Biotin, also known as vitamin B7 or vitamin H, is a water-soluble vitamin that helps in the metabolism of fats and proteins. Biotin plays an important role in hair health and is found in meats, egg, fish, seeds, and sweet potatoes. While biotin deficiency can lead to a scaly red rash, a decreased blood pH and alopecia (hair loss), biotin deficiency is rare and most people obtain enough biotin from their diet [2,5]. There is no clinical evidence for the advertised claim that biotin thickens and stimulates hair growth in the absence of a biotin deficiency [3-4]. In addition, the risks of biotin treatment may outweigh the benefits, and overtreatment with biotin is known to interfere with certain medical investigations, such as thyroid immunoassays [5].

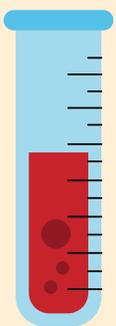


Ashwagandha

Ashwagandha, also known as Indian ginseng, is a plant in the nightshade family traditionally used for stress reduction and its anti-inflammatory properties [6]. It is used as an ingredient in several nutraceutical supplements. Evidence for nutraceutical supplements are often limited due to small sample sizes and limited diversity in clinical and cultural populations. While the therapeutic effects are not well ascertained, to date, no adverse events have been reported with use of ashwagandha extract [7-9].

Natural Hair Oils

The scalp has sebaceous glands that secrete an oily substance called sebum which lubricates the hair and contributes to the defense, integrity, and maintenance of healthy hair [10]. Specific grooming practices and normal hair weathering lead to a progressive loss of lipid production (a major component of sebum) contributing to a decrease in hair tensile strength and breakage [11]. The rationale for hair oils, such as amla or argan, is that they will replace these lost lipids and improve hair integrity. A trial comparing argan oil to miracle fruit seed oil showed that both were able to increase the levels of unbroken hairs steadily and continuously over an 8-month period [12].



Platelet-Rich Plasma (PRP) Therapy

Platelet-Rich Plasma (PRP) therapy is a three-step medical regenerative treatment that uses a person's own platelets to trigger natural hair growth [13]. The treatment begins with the person's blood being drawn, processed and finally injected into the scalp, increasing blood supply to the hair follicles and thereby, thickening the hair shaft [14]. PRP has been shown to be effective at increasing the number of hairs and overall hair density in patients with androgenetic alopecia (hair loss due to hormones called androgens) and is offered at private dermatology clinics [15 - 16]. While effective, PRP can be costly for some at approximately \$1,000 a treatment [13].

Hair Transplant

Hair transplant is a surgical procedure in which areas of your own non-alopecic hair are used to fill areas with thinning or no hair [17]. It involves the removal and replacement of either individual hair follicles or an entire strip of scalp from affected areas [17]. Although hair transplants have a high success rate, they are relatively costly at \$4,000 to \$15,000 depending on the area and size of the transplant.

- [1] Q. Dinh, and R. Sinclair. "Female pattern hair loss: current treatment concepts". Clinical Interventions in Aging, Jun 2007
- [2] "Biotin Deficiency - an overview | ScienceDirect Topics." <https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/biotin-deficiency>.
- [3] S. T., L. S. K., and S. J., "The Infatuation With Biotin Supplementation: A Comparative Analysis of Clinical Efficacy versus Social Popularity,." J. Drugs Dermatol. May 2017.
- [4] D. P. Patel, S. M. Swink, and L. Castelo-Soccio, "A Review of the Use of Biotin for Hair Loss," Skin Appendage Disorders, Aug. 01, 2017.
- [5] K.G. Thompson and N. Kim, "Dietary supplements in dermatology: A review of the evidence for zinc, biotin, vitamin D, nicotinamide, and Polypodium". Journal of the American Academy of Dermatology, 2020.
- [6] N. Singh, M. Bhalla, P. de Jager, and M. Gilca, "An overview on Ashwagandha: A Rasayana (Rejuvenator) of Ayurveda," African J. Tradit. Complement. Altern. Med., 2011.
- [7] G. Ablon and S. Kogan, "A Six-Month, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Safety and Efficacy of a Nutraceutical Supplement for Promoting Hair Growth in Women With Self-Perceived Thinning Hair," 2018.
- [8] A. L. Lopresti, S. J. Smith, H. Malvi, and R. Kodgule, "An investigation into the stress-relieving and pharmacological actions of an ashwagandha (Withania somnifera) extract," Sep. 2019.
- [9] B. B. Singh, S. Dagenais, B.-R. Assistant, and L.-C. Mishra, "Scientific Basis for the Therapeutic Use of Withania somnifera (Ashwagandha): A Review," 2000.
- [10] A. J. Thody and S. Shuster, "Control and function of sebaceous glands," Physiological Reviews, 1989.
- [11] L. Duvel, H. Chun, D. Deppa, and P. W. Wertz, "Analysis of hair lipids and tensile properties as a function of distance from scalp," Aug. 2005.
- [12] R. Del Campo, Y. Zhang, and C. Wakeford, "Effect of Miracle Fruit (Synsepalum dulcificum) Seed Oil (MFSO®) on the Measurable Improvement of Hair Breakage in Women with Damaged Hair: A Randomized, Double-blind, Placebo-controlled, Eight-month Trial," Matrix Medical Communications, 2017.
- [13] "Platelet-rich plasma therapy - Harvard Health," Oct. 2009. https://www.health.harvard.edu/newsletter_article/platelet-rich-plasma-therapy.
- [14] P. Gentile, S. Garcovich, A. Bielli, M. G. Scioli, A. Orlandi, and V. Cervelli, "The Effect of Platelet-Rich Plasma in Hair Regrowth: A Randomized Placebo-Controlled Trial," Stem Cells Transl. Med., 2015.
- [15] P. Gentile et al., "Evaluation of not-activated and activated PRP in hair loss treatment: Role of growth factor and cytokine concentrations obtained by different collection systems," Int. J. Mol. Sci., 2017.
- [16] A. K. Gupta et al., "Platelet-Rich Plasma as a Treatment for Androgenetic Alopecia," Dermatologic Surg., Oct. 2019.
- [17] Zito, P. M., & Raggio, B. S. (2020). Hair Transplantation. StatPearls [Internet].