

10 MINUTE CLINIC PODCAST SHOW NOTES

MALE PATTERN HAIR LOSS

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Male Pattern Baldness (MPB), or androgenetic alopecia, is a common form of hair loss affecting men, characterized by a predictable pattern of hair thinning. It typically begins with a receding hairline at the temples and thinning at the crown, eventually forming an "M" or "U" shaped pattern. The primary causes are genetic predisposition and hormonal changes, particularly involving dihydrotestosterone (DHT), which causes hair follicles to shrink and produce finer, shorter hair until growth ceases. While MPB is progressive and not reversible, some treatments may slow hair loss and, in some cases, encourage regrowth. In this podcast we take a look at the management options for MPB – including no treatment – as well as long-term results for the options available.

References and resources

[Hair loss - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[Male Androgenetic Alopecia - Endotext - NCBI Bookshelf \(nih.gov\)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791111/)

[What is male pattern hair loss, and can it be treated? \(aad.org\)](http://aad.org)

[British Association of Dermatologists \(bad.org.uk\)](http://bad.org.uk)

[Androgenetic Alopecia \(Pattern Hair Loss\) | Alopecia UK](http://alopeciauk.com)

Take home points

- Male pattern hair loss is the most common type of diffuse thinning of the hair and balding that occurs in adult males. It is due to a combination of hormones (androgens) and a genetic predisposition.

- Male pattern hair loss is also called androgenetic alopecia. It is characterised by a receding hairline and hair loss on the top and front of the head.
- Up to half of male Caucasians will experience some degree of hair loss by the age of 50 and possibly as many as 80% by the age of 70. Other population groups such as Japanese and Chinese men are far less affected.
- All hair follicles are replaced at different rates by the normal process of hair cycling. Hair growth alternates between phases of activity and rest.
- Unlike other areas of the body, hairs on the scalp to grow in tufts of 3–4. In androgenetic alopecia, the tufts progressively lose hairs. Eventually, when all the hairs in the tuft are gone, bald scalp appears between the hairs.
- Male pattern hair loss is an inherited condition, caused by a genetically determined sensitivity to the effects of dihydrotestosterone (DHT) in some areas of the scalp. The production of DHT is regulated by an enzyme called 5-alpha reductase.
- Male pattern hair loss occurs in men who are genetically predisposed to be more sensitive to the effects of DHT.
- Genetic testing for prediction of balding is unreliable.
- Male pattern hair loss can have a negative [psychological impact](#). Studies have shown that hair loss can be associated with low self-esteem, depression, introversion, and feelings of unattractiveness.
- Current treatment options include hair replacement, cosmetics, micropigmentation (tattoo) to resemble a shaven scalp, hairpieces,

minoxidil solution, finasteride tablets (a type II 5-alpha-reductase inhibitor) and dutasteride.

- For many men, there is no effective affordable treatment. Acceptance is the ideal management strategy. Counselling or support groups may be useful.
- There are two pharmacological options approved for this condition. Neither is available on the NHS. There is a high rate of discontinuation of treatment due to lack of satisfaction with the results.
- Minoxidil was originally marketed in a tablet form for the treatment of high blood pressure. One of the side effects of this treatment was unwanted hair growth.
- Minoxidil solution dilates small blood vessels. When applied to the affected areas of the scalp twice daily it has been shown to stimulate hair regrowth probably by enhancing cell proliferation.
- Topical application of minoxidil twice daily, in either 2% or 5% form may be used. It is available over-the-counter or by private prescription.
- Minoxidil is more likely to be effective in the early stages of balding than once it is established. It should be used for at least six months to establish efficacy and then used indefinitely in order to maintain any effect. Generally hair growth is thinner and finer than the original hair.
- If treatment is stopped, the pre-treatment appearance will normally return within 3 or 4 months. If it is stopped after several years of use, the hair that was genetically programmed to be lost during that time will fall out

- Finasteride inhibits expression of the enzyme, 5-alpha reductase, which regulates the production of dihydrotestosterone (DHT). By lowering DHT levels in the scalp, it reduces DHT's harmful effect on hair follicles
- Oral finasteride in a dose of 1 mg daily may be effective. It is only available by private prescription. A trial of at least six months is needed and, if effective, treatment needs to be continued indefinitely.
- Side effects include gynaecomastia, testicular atrophy. There is a small but significant risk of adverse sexual side-effects (both erectile dysfunction and reduced libido). This may persist even after stopping the medication so very good counselling is required.
- There is also a risk of psychiatric side effects, including depression, self-harm and attempted suicide.
- If a patient stops taking finasteride, DHT levels will rise again in the scalp, and it is likely that hair loss will resume.