CONDITION

Male pattern baldness

Male pattern baldness is inherited, gradual scalp hair thinning that usually affects the hairline and crown.

WHAT IT IS
Inherited, gradual thinning of scalp hair in a typical pattern

BODY SYSTEM
Skin and hair

MAIN SYMPTOMS
Receding hairline, crown thinning, finer hair, visible scalp

WHAT CAUSES IT
Inherited sensitivity of scalp follicles to male hormones

HOW IT IS DIAGNOSED
Hair-loss pattern, history, and scalp examination

MAIN TREATMENT
Hair-growth medicines, camouflage, or hair transplantation

CAN IT BE CURED?
No, treatment manages ongoing follicle shrinkage

IS IT AN EMERGENCY?
No, but sudden or inflamed hair loss needs prompt assessment

LONG-TERM OUTLOOK
Often progresses slowly, but treatment can preserve hair

Overview

Male pattern baldness is a common form of gradual hair loss in men. It usually begins with a receding hairline, thinning at the temples, or a thinner area on the crown. These areas may slowly join, while hair around the sides and back remains thicker.

The condition affects hair follicles, which are the small structures in the skin that produce hair. Sensitive follicles gradually shrink. Each new hair becomes shorter and finer until it may be difficult to see.

Male pattern baldness does not damage your physical health. However, hair can be closely tied to identity, age, and confidence. Hair loss may therefore have a meaningful emotional effect, even when other people consider it cosmetic.

Treatment is optional. Some people want to slow the loss or encourage growth, while others prefer a shorter hairstyle, scalp camouflage, or no treatment. There is no medically correct way to feel about it.

Symptoms

Male pattern baldness develops gradually, often over years. It may begin any time after puberty, although the timing and rate of change differ between people.

Typical features include:

The scalp usually looks and feels normal. Male pattern baldness does not normally cause redness, scaling, sores, severe itching, or pain.

Hair on the sides and back of the head is usually less affected. Some men eventually keep only a band of thicker hair in these areas, while others have limited thinning that changes very slowly.

A few hairs on a pillow or in the shower are not enough to identify the condition. Everyone naturally sheds hair. The overall pattern and change over time are more useful than the number of hairs seen on a particular day.

- A hairline that moves back at the temples
- Gradual thinning on the crown or top of the scalp
- Hairs that become shorter, finer, and less noticeable
- More scalp becoming visible in bright light or photographs

Causes and risk factors

Male pattern baldness is caused by a combination of inherited traits and the effects of androgens, which are hormones involved in male development.

One androgen, dihydrotestosterone or DHT, affects genetically sensitive scalp follicles. Over repeated growth cycles, these follicles produce progressively finer hairs. This does not usually mean that your testosterone level is unusually high.

Genes linked to hair loss can come from either side of the family. Having a close relative with similar hair loss increases the chance of developing it, but family history cannot predict exactly when it will start or how far it will progress.

Age also matters because the effects build over time. Stress, hats, frequent shampooing,

masturbation, and ordinary styling do not cause the underlying condition. Tight hairstyles, harsh chemicals, illness, nutritional deficiencies, or major stress can cause other types of hair loss, which may occur at the same time.

Diagnosis

A healthcare professional can usually identify male pattern baldness from your history and the distribution of thinning. They will examine your hairline, crown, scalp, and the thickness of individual hairs.

A dermatoscope may be used. This is a handheld magnifying tool that helps show variation in hair thickness and other follicle features. Photographs can help document the pattern and track changes.

Blood tests are not normally needed when the pattern is typical. They may be considered if hair loss is sudden or widespread, or if you have symptoms suggesting another cause, such as thyroid disease, iron deficiency, or a recent serious illness.

A small scalp biopsy is rarely required. It may be useful when the diagnosis remains uncertain or there are signs of inflammation or scarring.

Treatment and management

You do not have to treat male pattern baldness. Before choosing treatment, it can help to consider the likely benefit, possible side effects, ongoing cost, and whether you are comfortable using it long term.

Topical minoxidil is applied directly to the scalp and is available without a prescription in many countries. It can slow hair loss and may thicken some miniaturised hairs. Benefit takes several months to assess, and continued use is needed to maintain it.

Minoxidil can cause scalp dryness, irritation, or unwanted hair growth where it spreads onto nearby skin. Temporary increased shedding can occur soon after starting. Chest pain, fainting, a rapid heartbeat, swelling, or sudden unexplained weight gain need prompt medical assessment.

Finasteride is a prescription tablet that lowers DHT levels. It can slow further loss and may improve hair density in some adult men. Results are not guaranteed, and any benefit is generally lost after treatment stops.

Possible side effects include reduced sexual desire, erection or ejaculation problems, breast

tenderness, and mood changes. Depression and suicidal thoughts have been reported. Seek urgent support if serious mood symptoms or thoughts of self-harm develop. Finasteride also affects the prostate-specific antigen, or PSA, blood test, so anyone having that test should report its use.

Some specialists use oral minoxidil for hair loss. This is an off-label use, meaning the medicine was not originally licensed for this purpose. It can affect blood pressure and heart rate and may cause fluid retention or unwanted body hair, so medical assessment and monitoring are important.

Other options include:

Hair transplantation can give long-lasting growth in transplanted follicles, but it does not stop thinning in the surrounding untreated hair. Planning should account for possible future loss.

Vitamin or mineral supplements do not treat inherited follicle sensitivity. They are helpful only when a relevant deficiency is present. Products promising rapid or permanent regrowth should be approached cautiously.

- Hair fibres, scalp sprays, wigs, hairpieces, or changes in hairstyle
- Hair transplantation using follicles taken from the back or sides
- Scalp micropigmentation, which creates the appearance of short hairs
- Low-level light devices, although results and product quality differ
- Platelet-rich plasma injections, for which evidence and treatment methods remain inconsistent

Complications

Male pattern baldness does not usually cause medical complications. The exposed scalp may burn more easily in sunlight, so a hat or suitable sunscreen can help protect it.

The emotional effect can be more important. Some people experience embarrassment, low confidence, anxiety, or persistent preoccupation with their appearance. Support from a healthcare professional or counsellor may help if hair loss is affecting your mood, relationships, or daily activities.

Treatments can also cause side effects. These should be reviewed rather than accepted as the unavoidable cost of keeping your hair.

Prevention

Inherited male pattern baldness cannot reliably be prevented. Gentle hair care may reduce breakage, but it does not stop hormone-sensitive follicles from becoming smaller.

Starting an effective treatment before extensive thinning may preserve more hair. This manages the condition rather than preventing it, and no available option can guarantee that hair loss will stop.

There is no good evidence that special shampoos, scalp massage, cutting the hair frequently, or avoiding hats prevents male pattern baldness.

Living with it and what to expect

The condition usually changes slowly over months and years. There may be periods when the hairline seems stable and others when thinning is more noticeable. It is not possible to predict the final pattern from one examination.

Medicines are more likely to maintain existing hair than restore a full earlier hairline. Any improvement is usually gradual. Taking photographs in the same lighting every few months is more useful than checking the mirror each day.

Treatment generally needs to continue for as long as you want to maintain its effect. Stopping does not make the underlying condition worse than it would otherwise have been, but hair preserved by treatment is usually lost over the following months.

Many men live normally without treating their hair loss. Others find that medication, transplantation, camouflage, or choosing a shorter style improves confidence. Preferences may change over time, and choosing not to pursue treatment is reasonable.

When to get medical help

Arrange a routine appointment if you are unsure why your hair is thinning, want to discuss treatment, or are distressed by the change. Assessment is also worthwhile before paying for commercial hair-loss services.

Seek a timely medical assessment if the loss is:

These features are not typical of male pattern baldness and may indicate another condition. Early assessment is particularly important if the scalp appears scarred or shiny because some inflammatory conditions can permanently damage follicles.

Hair loss itself is not an emergency. Seek emergency care for chest pain, fainting, severe

breathing difficulty, or signs of a serious allergic reaction while using a treatment. Get urgent mental health support if you develop suicidal thoughts or feel unable to keep yourself safe.

- Sudden, very rapid, or occurring in round patches
- Affecting eyebrows, eyelashes, or body hair
- Accompanied by pain, burning, redness, heavy scaling, sores, or pus
- Associated with fatigue, unexplained weight change, or other new symptoms

Common questions

Will my hair grow back?

Some miniaturised hairs may become thicker with treatment, especially where thinning is recent. A completely bald area is less likely to respond. No treatment can promise full regrowth, and ongoing treatment is usually needed to keep any benefit.

Does male pattern baldness mean I have too much testosterone?

Usually not. The main issue is how genetically sensitive scalp follicles respond to DHT, not simply the amount of testosterone in your blood. Hormone testing is not routinely needed for a typical pattern.

Can stress cause a receding hairline?

Stress does not cause the inherited process behind male pattern baldness. Major physical or emotional stress can trigger temporary widespread shedding, called telogen effluvium. The two forms of hair loss can occur together.

Do hats or shampoo make baldness worse?

Ordinary hats and regular shampooing do not cause male pattern baldness. Very tight headwear may break hairs through repeated friction, while harsh products can irritate the scalp, but neither changes inherited DHT sensitivity.

How can I tell if it is male pattern baldness or something else?

Gradual thinning at the temples and crown with a normal-looking scalp is typical. Sudden shedding, sharply defined bald patches, broken hairs, pain, redness, or scaling suggest that another cause should be considered.

Do hair-loss treatments work permanently?

Medicines work only while they are continued. Transplanted hairs may remain for many years because they come from less sensitive areas, but untreated hair around them can continue thinning.

Sources

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