

# Causes of hair loss in Men

FAQ

Your Questions Answered.

**REVEAL**  
REVEAL  
See You.

## What is the most common cause of hair loss in men?

By far the most common cause of hair loss in men is androgenetic alopecia, also referred to as "male pattern" or "common" baldness. This accounts for more than 95% of hair loss in men. About 25% of men who suffer from male pattern baldness begin the process before they reach 21. By age 35, two-thirds of American men will have some degree of appreciable hair loss, and by age 50, approximately 85% of men have significantly thinning hair.

## What causes androgenetic alopecia?

Androgenetic hair loss is caused by three interdependent factors: genes, hormones, and age:

- **Genes**

Common baldness cannot occur without the presence of specific inherited genes. These genes can be passed on by either parent. Genes that are located on the X or Y-chromosomes are called sex-linked. Genes on the other 22 pairs of chromosomes are called autosomal. It is felt that the genes governing common baldness are autosomal (not sex linked). This means that the baldness trait can be inherited from the mother's side of the family or the father's side with equal frequency. The commonly held notion that baldness comes only from the mother's side of the family is incorrect, although for reasons not fully understood, the predisposition inherited from an affected mother is of slightly greater importance than that inherited from an affected father.

The term, "dominant" means that only one gene of a pair is needed for the trait to show up in the individual. A "recessive" gene means that both genes need to be present in order for the trait to be expressed. The genes involved in androgenetic alopecia are felt to be dominant.

But just because one has the genes for baldness, it doesn't mean the trait will manifest itself. Manifestation is related to a number of factors, the major ones being hormones and age, although stress and other factors can play a role in some individuals.

- **Hormones**

The same hormones that cause acne and beard growth can also signal the beginning of baldness. The presence of androgens, testosterone, and its related hormone DHT cause some follicles to regress and die. In addition to the testicles, the adrenal glands located above each of our kidneys produce androgenic hormones, and this would be similar in both sexes.

The hormone felt to be directly involved in androgenetic alopecia is actually dihydrotestosterone (DHT). It is formed by the action of the enzyme 5-a reductase on testosterone. DHT acts by binding to special receptor sites on the cells of the hair follicles to cause the specific changes associated with balding.

In men, 5-a reductase activity is higher in the balding area. This sensitivity to DHT is present mainly in hair follicles that reside in the front, top, and crown of the scalp (rather than the back and sides) producing a characteristic and easily identifiable pattern.

DHT decreases the length of the anagen (growing) cycle, and increases the telogen (resting) phase, so that with each new cycle the hair shaft becomes progressively smaller. In addition, DHT causes the bitemporal reshaping of hairline seen as adolescents enter adulthood, as well as patterned baldness (androgenetic alopecia). DHT also causes prostate enlargement in older men and adolescent and adult acne.

*(Continued)*

- Age

The presence of the necessary genes and hormones are not sufficient to cause baldness. Even after a person has reached puberty, susceptible hair follicles must continually be exposed to the hormone over a period of time for hair loss to occur. The age at which these effects finally manifest themselves varies from one individual to another and is related to a person's genetic composition, the levels of testosterone in the bloodstream, and the level of stress an individual experiences over time.

There is another time factor that is poorly understood. Male hair loss does not occur all at once nor in a steady, straight-line progression. Hair loss is characteristically cyclical. Men who are losing their hair experience alternating periods of slow and rapid hair loss and even stability. Many of the factors that cause the rate of loss to speed up or slow down are unknown, but we do know that with age, a person's total hair volume will decrease.

Even when there is no predisposition to genetic balding, as a patient ages, some hairs randomly begin to miniaturize (shrink in length and width) in each follicular unit. As a result, each hair grouping will contain both full terminal hairs and miniaturized hairs (similar to the very fine hairs that occur on the rest of the body) making the area look less full. Eventually, the miniaturized hairs are lost, and the actual follicular units are reduced in number.

## What can I do to address current hair loss and prevent future hair loss?

While there are a couple of differences, the options for both men and women are very similar, and there are a few key points to understand. First, the sooner you start intervening to prevent further hair loss, the better. Medical therapies such as Propecia and topical minoxidil work very well for the vast majority of people, but they must be used consistently for at least a year, and cannot be stopped. The biggest mistake people make when starting these therapies is getting frustrated with what they view as lack of results and discontinuing therapy. Additionally, LLLT (Low Level Laser Therapy) can be very effective at preventing further hair loss as well as thickening and strengthening the hair that already exists, leading to fuller looking hair with better coverage. Finally, the newest hair transplant techniques such as Reveal's Rapidgraft<sup>SM</sup> can repopulate balding or even completely bald areas with your own hair, but not if the baldness has extended too far. If you feel that hair loss is an issue for you, it's important to start every possible intervention immediately to halt further hair loss before it's too late.