

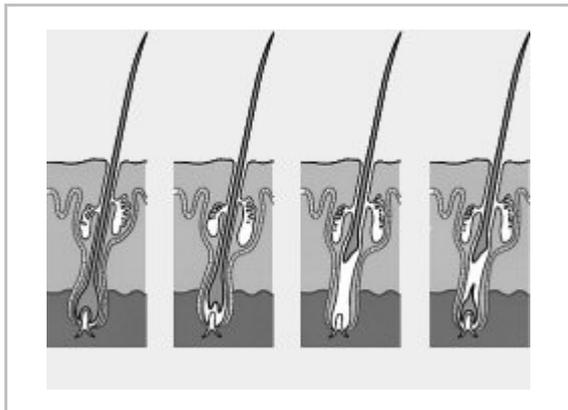
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The Hair Growth Cycle

Varying Greatly Between Individuals

from transgendercare.com

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Hair growth continuously occurs as new hair cells are formed at the base of the follicle and molded by a structure, called the inner root sheath, that surrounds the growing hair shaft. Androgens, the male sex hormone (present in both men and women) activates specific areas of the body to produce hair.

Hair growth varies greatly between individuals and the specific area of the body. Scalp hair, for example, grows an average at one-tenth of an inch weekly. Leg hair, by contrast, grows at about half that rate.

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The life cycle of hair follicles, that is, the repeating cycle of growth and rest phases, affects overall hair production. No new hair follicles are produced after birth - the appearance (and disappearance) of hair is the result of changing ratios in the growth/rest cycle. This life cycle is distinguished as three separate stages:

- **Anagen Phase** - the active growth stage
- **Catagen Phase** - the transitional stage of arrested growth
- **Telogen Phase** - the resting stage of the hair cycle

The cycle of life for each follicle begins with the anagen phase - the re-awakening of the follicle's growth stage where a newly formed hair begins to grow. This growth phase continues for a time lasting for as little as several weeks (like the moustache area) or lasting as long as several years (like the scalp area). Depending on the area of the body, gender, hormonal and other factors, growth lasts for varying lengths of time.

But ultimately the level of growth begins to slow. This second stage of slowing or arrested growth is known as the catagen phase. This slowing continues into the third and final phase - a period of inactivity or rest.

Finally during the third stage, the resting or telogen phase, the hair has separated from papilla and is no longer able to be provided with nourishment. At this point, no more new hair cells are formed and the inactive hair remains in place by a thin strand of epidermal cells. By the end of the telogen phase, the hair shaft is now only held in place mechanically, and can be shed by brushing, combing or other tension placed upon it. The hair shaft remaining in place at the end of its growth cycle is called a club hair. It is not uncommon for a club hair to remain in place while a newly formed anagen hair is beginning to emerge, forcing the club hair to be shed.

Whether the club hair is shed or not, the hair follicle will once again become active and begin to grow a new anagen hair. This process of growth and rest continues throughout our lifetime. In humans, follicle activity is generally scattered between all phases of the life cycle. Other mammals have a more orderly growth pattern, which shows as noticeable periods of hair growth and shedding.

This resting phase plays an important role in electrolysis: Generally, a follicle cannot be properly treated (and thereby destroyed) during the resting phase. Focusing on the beard area as it is of prime importance, almost half of its hairs are in the resting phase at any time. And depending on the area of the face, this resting phase may last anywhere from six to twelve weeks duration. So even if every hair could be permanently removed from the beard, from the very fine and slow growing to the thick and robust, only one half could be killed.

So it is understandable that clearing (the complete permanent removal of hair) of an area of unwanted hair such as the beard will take about one and a half to two years at best. This time frame is based on about 200 to 300 hours of treatment using a technique that kills about 70 percent of the hair follicles that are treated. Keep in mind that all electrolysis methods do not achieve this high kill rate. Thermolysis, may kill only 5 to 15 percent of hairs treated while the blend method may kill about 70 percent.

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