

## Stages of Hair Growth

Have you ever plucked a hair and noticed that instead of a dark root, it's got a little white ball on the end? What's up with that!? Well, as it turns out there are four stages of hair growth, and as the hair goes through each cycle it changes in appearance and becomes noticeably different until eventually, the hair detached from the skin and falls out, sending the signal to the body that "Hey, we're all done here - hurry up and make a new hair!" So just what are these different phases, and how do they differ from one another?

Anagen Phase (Growing phase) - This is when the hair is all about being the longest hair it can be. It's receiving the nutrients from the root, where the cells are dividing rapidly, and adding to the lengthening hair shaft. This phase can last for years, and it's very possible for it to produce up to 1 cm of new length in just 28 days! That might not sound like much, but over time it can add up. Hair on your scalp can remain in this stage for 2-7 years, depending on what your genetic makeup is like. Eventually, the follicle receives some mysterious signal that we have yet to discover, and then it's time for the next phase.

Catagen Phase (Transitional Phase) - What happens next is kind of exciting! After the end of the anagen phase is signaled, part of the hair follicle that's near the base of the hair gets attached to the shaft, and over a time period of 2-3 weeks the follicle starts to turn the hair into what is know as a 'club hair'. A club hair is pretty cool - they've got a root that resembles a tail. The process of producing a club hair results in the root detaching from the blood supply and cells responsible for growth, and it works it's way up toward the surface of skin.

Telogen Phase (Resting Phase) - So now you have a club hair and it's just kind there. Not really much of anything. In fact, at this point the hair is basically dead, and is just trapped in the surface of the skin. The tail of the catagen phase is transformed into a tiny little white ball of Keratin. It is the only thing keeping the hair in place in the skin. and once it's ready to release...

Exogen Phase (Resting Phase II) - ...the hair falls out! The signal is sent to start production on the next hair. Once that begins we're right back where we started with the Anagen Phase again!

How long each hair lasts in each phase will vary not just from person to person, but it also depends on what part of the body the hair is growing out of. While we can successfully use electrolysis to treat a hair within any given cycle, we tend to see the best results when the hair is with the androgen phase. During this point in the cycle, we have a lot of moisture content in the follicle due to the active blood flow feeding the papilla. The bulb is also deeper under the skin at this point, allowing the probe to run hotter without increasing the risk of skin damage on the surface. After treating a hair it takes about 6-8 weeks for the follicle to rebuild and grow a new hair (if it's even able to after a treatment). Any new hair always starts in the anagen phase as well, making it possible to space your treatments accordingly to achieve maximum results :)

