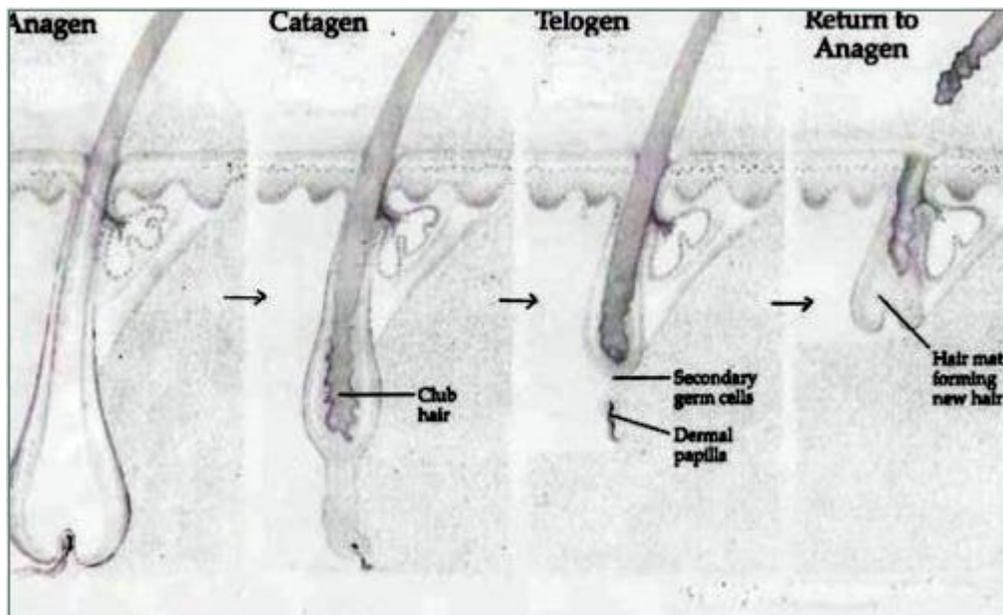


# Hair Cycles and Body Hair Transplantation

If, (without pre shaving a test donor area ), "telogen" and "anagen" grafts that have been so identified based on appearance are transplanted into designated areas, and we then observe that in the interim 10% or more of the "telogen" grafts had started growing ahead of the "anagen" hair column. Does it mean telogen hair should be preferred to anagen hair in BHT?

A possible source of confusion in this scenario lies in the telogen vs anagen hair selection process.

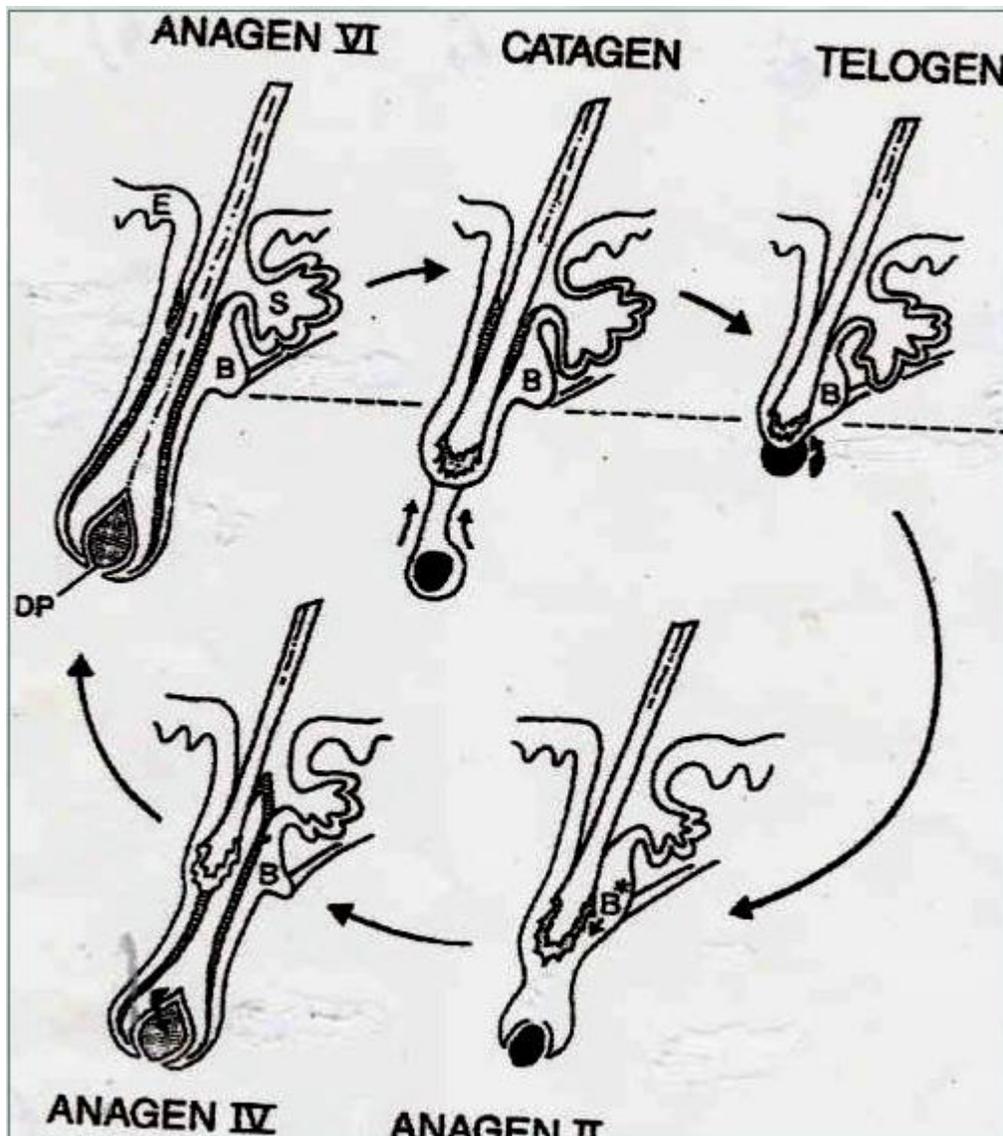
Briefly on hair cycles and structures:



While this depiction of hair growth cycles serves most purposes, scientific studies premised on this simplistic model could be fraught with problems that may well lead to problematic conclusions.

A more nuanced depiction of the cycle will also recognize sub divisions of the different phases. In this instance the subdivisions of anagen (about 6 of them are noteworthy). A study based on hair cycles would be well served to recognize this:

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The first 3-4 stages of anagen (Anagen I-III/IV) could be mistaken for telogen/catagen hair if telogen hair selection is premised on just physical appearance of randomly chosen hair. Not recognizing this shortcoming could mislead us into drawing conclusions about telogen or catagen hair when in actuality what we have is anagen I-III/IV hair.

### **How do you avoid (or significantly reduce) this problem?**

Ages ago, dermatologists have known to finetune the selection process of anagen/telogen hair by phototrichograms (i.e based on growth assessment after shaving). By shaving the area and selecting only actively growing hair, proper anagen hair selection is more likely. In that scenario, non growing hair with established physical traits of telogen hair is more likely to be telogen hair indeed. Please note that even in that scenario, in recognition of the fact that Anagen I-IV grafts

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could look like telogen/catagen hair, it is prudent to consider the term "mostly" telogen/catagen. At least this pitfall should be recognized in arriving at conclusions.

**In summary:** Without preshaving and selection of only non growing hair, a certain proportion (perhaps 10-30%) of the anagen I-IV could be mistaken for telogen hair because of factors like clear bulbs that are yet to pigment etc.

Anagen I-IV hair (earlier phases of anagen hair) could grow in first. I have already observed this phenomenon months ago in different scenarios. A foreknowledge of the nuances in hair cycle in this case that "earlier phases of anagen in a hair could be passed off as telogen" has prevented the temptation to make rash conclusions. Following the "telogen column" for a while will confirm that the initial 10+% growth is all one gets, because the initial growth sprouts in the telogen column are likely grafts in earlier stages of anagen. True telogen hair that have been successfully extracted (see next post on this) will be akin to bulbless hair that has been transplanted which for the most will remain wispy if at all they ever grow.

In short, the idea that telogen hair may be favorable for transplantation is fraught with pitfalls. Remember, scalp hair transplants which grow in typically within a few months (not years) are in anagen 85-90% of the time.

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