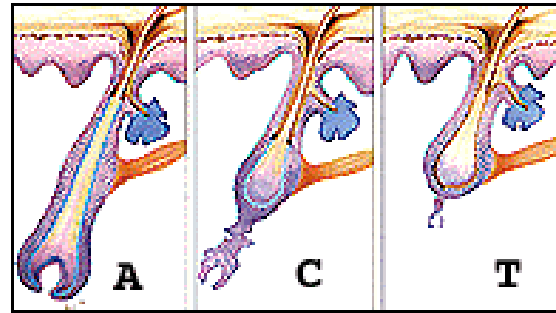


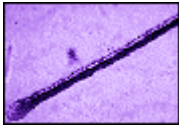
HAIR LIFE CYCLE

The life cycle of a hair is divided into three phases. The actively growing (Anagen) phase, the transitional (Catagen) phase, and the resting (Telogen) phase.

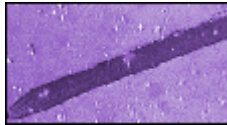
During the anagen phase, protein and keratin are continuously made. It is during this phase that the hair shaft is manufactured and pushed upward to its natural length. Not the large healthy bulb at the hair base. A hair's anagen, or growth phase, lasts from 3 to 5 years, and represents what is occurring to about 90% of the hair on your head at any given time.



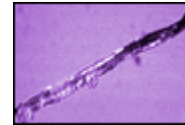
In the catagen, or transitional phase, there are chemical and structural changes in the hair follicle. The hair stops growing, and remains in this phase for only two to three weeks before moving into the next phase.



Anagen

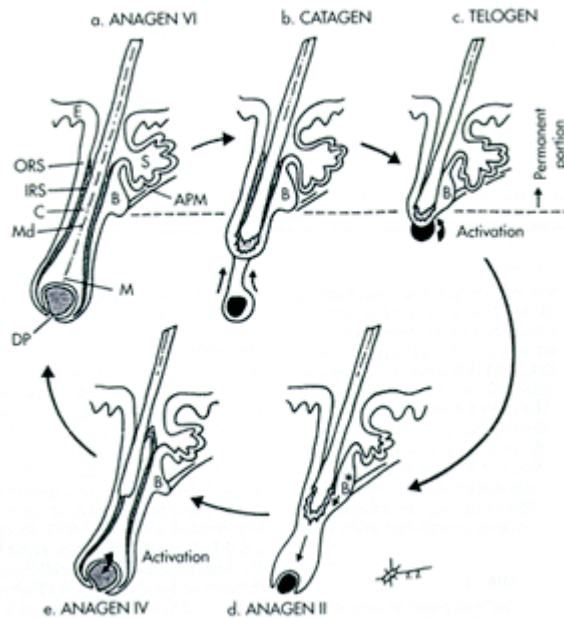


Catagen



Telogen

The Hair Growth Cycle



Miniaturization of the Hair Follicle in Hair Loss



The hair growth cycle

Each individual hair is formed inside a hair bulb deep in a hair follicle. The follicle is a tiny but powerful factory, which throughout many people's lifetime hardly ever stops working. From a baby's birth for many decades, as much as a century in some people, the follicle continues to produce hairs.

None of these treatments affects the growth of the hair in the hair bulb, even though some may seriously damage the hair shaft.

Finally the hair spontaneously falls out. The follicle rests for a little while, and then starts to produce yet another new hair. *This is the hair cycle.*

Stages of the hair cycle

Between starting to grow and falling out years later, each hair passes through three distinct stages. These are so important that they have been given special names: **anagen** (the growing phase), **catagen** (the intermediate phase) and **telogen** (the shedding phase).

When you understand these stages you understand how laser hair removal works and why you need multiple treatments.

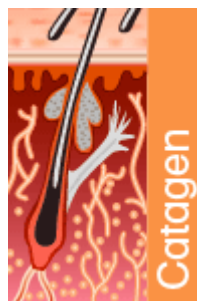
So, if the hair is up and about and has visible pigment it is in its anagen phase. Its pigments can absorb the laser and the follicle can be destroyed.

When the hair is its resting phase or catagen/telogen phase it is not visible or capable of absorbing the laser light and no destruction of the follicle will occur. So, it makes sense to have multiple treatments in order to obtain the 90% , +, or – 10% permanent reduction standard. The hair needs to be up and about in order to be destroyed.

The 3 phases of the hair growth process



The growing phase,



Hair stops growing



Resting phase

lasting approximately 1,000 days

Phase 1 – Anagen

The anagen phase is the growing, or the 'on' phase. In humans, this lasts for approximately 1,000 days, but can range from 2 to 6 years. During the anagen phase, hair cells grow rapidly, producing the hair shaft from the follicle, which itself grows deeper into the scalp. The length of

your anagen phase determines the maximum length of your hair. So, the longer your anagen phase, the longer your hair will grow.

Phase 2 – Catagen

The catagen phase only lasts for one to two weeks. It is the transitional or regressive phase. Essentially, it is when the hair stops growing. During this period, the hair follicle shrinks and part of it starts to die.

Phase 3 – Telogen

The telogen phase is the final resting stage, or 'off' phase.

When the old hair is in this phase, the hair follicle becomes active again and a new hair in the anagen phase develops, forcing the old telogen hair out. This is when you might notice hairs in the bath or in your brush or comb.

At any one time, around 90% of most people's hair follicles are in the 'growing' anagen phase and approximately 10% are in the 'resting', or telogen, phase.

The Hair Growth Cycle

Hair follicles grow in repeated cycles. One cycle can be broken down into three phases.

1. Anagen - Growth Phase
2. Catagen - Transitional phase
3. Telogen - Resting Phase

Each hair passes through the phases independent of the neighboring hairs.

Anagen Phase - Growth Phase

Approximately 85% of all hairs are in the growing phase at any one time. The Anagen phase or growth phase can vary from two to six years. Hair grows approximately 10cm per year and any individual hair is unlikely to grow more than one meter long.

Catagen Phase - transitional phase

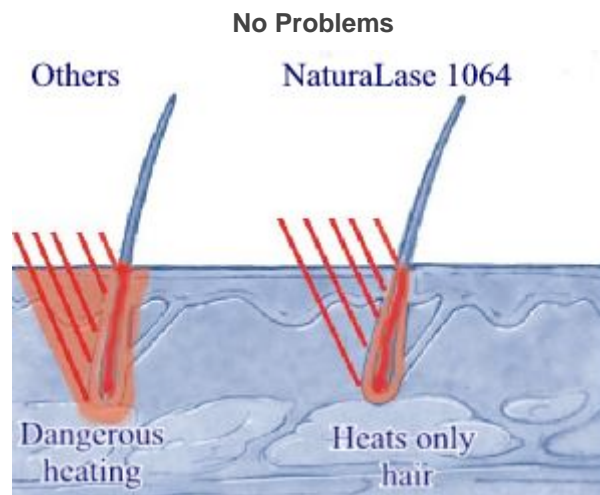
At the end of the Anagen phase the hairs enters into a Catagen phase which lasts about one or two weeks, during the Catagen phase the hair follicle shrinks to about 1/6 of the normal length. The lower part is destroyed and the dermal papilla breaks away to rest below.

Telogen Phase - resting phase

The resting phase follows the catagen phase and normally lasts about 5-6 weeks. During this time the hair does not grow but stays attached to the follicle while the dermal papilla stays in a resting phase below. Approximately 10-15 percent of all hairs are in this phase at an one time.

At the end of the Telogen phase the hair follicle re-enters the Anagen phase. The dermal papilla and the base of the follicle join together again and a new hair begins to form. If the old hair has not already been shed the new hair pushes the old one out and the growth cycle starts all over again.

	NaturaLase 1064 From Focus Medical	Diode Lasers (Coherent and others)	Al (an
Skin Type	All Skin Types	No Dark Skin	N
Safety	Safest in the industry	Medical supervision required	M su r
Cooling	Not needed	Cooling Required	C R
Burns	No Burning	Burning Possible	B P
Pain	Minimal	Yes	
Pigmentation Problems	Not Permanent	Possibly Permanent	P Pe
Energy applied	2 to 3 J/cm2	40 to 60 J/cm2	4
Beam Overlap	Good	Pigmentation problems	Pig pro
Treatment Method	Continuous scan at 10 pulses per second	Press against Skin and fire, re-aim and repeat	1 p sec
Treatment Speed (mans back)	30 minutes 2 to 3 times faster	1 hour or more	1 t
Efficacy	Excellent long term results	Deceptive Claims*	D (



Other hair removal lasers use 20 to 30 times higher fluences to remove hair

Other laser beams heat the skin as they penetrate to the follicle.

The NaturaLase 1064 light passes through the skin directly to the hair using a fraction of the energy.

Short high peak pulses destroy follicle without heating the surrounding tissue.

No Complications

The NaturaLase 1064 laser has the best safety record in the industry. With this laser:

- No burns
- Treat all skin types
- No pigmentation problems

NaturaLase has technical advantages over the competition: reduce the energy required and improve efficacy.

The competition tries to make up for these problems with a cooling systems to prevent burning.

NaturaLase delivers the most effective hair removal with no risk of skin damage

improve efficacy

- Temporal Compounding Technology
- Long Wavelength

NaturaLase uses unique temporal compounding technology. This high tech approach kills the hair follicle using a fraction of the power required by other hair removal lasers.

The wavelength used by the 10600nm is ideal for hair removal. It is absorbed by the hair follicle but it passes through the skin like a window regardless of skin pigmentation. **The laser works on all skin types.**

- Heats hair
- No cooling system required