**Hair Education**

*-100,000 hair follicles on the human head (on average) Difference=* Follicle cannot see

*-100,000 to 400,000 hairs on the human head (on average)* Hair you can see

*-Terminal hair grows for 3-6 years before shedding*

*-Average growth rate for terminal hair 12mm month or 5.5 inches yearly*

*-Average hair shedded daily is 50-100 hairs*

Alopecia; medical term for hair loss, catch all term.

-Male Pattern Alopecia (35 yo) -Female Pattern Alopecia (40yo) \*(androgenic )

-Secondary Alopecia; thyroid, stress, pregnancy, microvascular dx., hyperlipidemia, diabetes, etc.

-Primary Alopecia; areata or totalis

-Telogen Effluvium; sudden loss of hair (shedding)

Stages of hair loss;

-stage-1; 50% terminal 50% of vellus

-stage-2; cannot treat, in hair follicle shedding

-stage-3; cannot treat, hair is shortening and thinning.

Bulge-hair germ; targeted to restimulate hair growth. Stem cell.

Vellus Hair; less pigment, small in size, smaller bulb, bulge cell inactive, determinant length. (Body hair)

Terminal Hair; longer, thicker, darker and indeterminant length. (Head hair)

Hair Miniaturization: Terminal hair changes into Vellus hair. Catch before 50% has changed to reverse.

Testosterone; promotes hair growth

Estrogen & Progesterone; protects hair follicles keeps hair in anagen longer.

Temporal recession; normal for all men to have a widows peak.

Growth of Hair: *Anagen;* growing phase (90% hair)

*Catagen;* regression phase (1-2 weeks)

*Telogen;* resting phase (5-6 weeks) \*Hair Loss occurs\*

*Anagen onset;* initiation of growth & separation of stem cells (3-6 years)

*Exogen;* (simultaneous w/ anagen onset) Shedding

\*10% of all of the hair on one's head stays in catagen-telogen & anagen

Women- telogen phase in summer- start to lose more hair in the fall.