

### ENSURING 30-40% MINIMUM HAIR RE-GROWTH ACROSS ALL INDICATIONS AND GRADES

APPROVED BY ● US FDA ● HEALTH CANADA ● AUSTRALIAN TGA

## The Mechanism and the Role of Nutrition in Hair loss due to stress

- Secretion of glucocorticoids & cortisol is the first response to physical, emotional or mental stress. This leads to excess glucose conversion from proteins and fat to promote brain, muscles and nerve response to flight, fight & fear.
- Stress accelerates cell metabolism, raising nutrient requirement, increasing appetite, hunger, craving for high sugar, high salt high fat, and comfort foods.
- Higher metabolism generates more free radicals. These toxins weaken the cellular functions. Plus these ROS are mediators for the action of DHT, Substance P & influence genetic expression leading to hair loss in many ways.
- Cells suffer additional wear & tear which escalates the demand for nutrients to repair & restore function. Chronic stress with repeated derangement of cell function leaves a uncorrected demand resulting in gradual raise in health parameters like heart rate, blood pressure, sugar levels, dyslipidimias, sowing seed for various diseases. Arrest of hair growth is the first compensatory step as hair not an integral part of any vital functions.

Stress causes nutritional imbalance, metabolic imbalance, insulinresistance.

Hair growth during such adaption is arrested in order to conserve the nutrients and redirect them to more important vital functions.

Botchkarev VA. Stress & the Hair Follicle: Exploring the Connections. The American Journal of Pathology.

Vanaelst B, et al. Cross-sectional relationship between

chronic stress and mineral concentrations in hair of elementary school girls. Biol Trace Elem Res.

Arck PC, et al. Indications for a 'brain-hair follicle axis (BHA)': inhibition of keratinocyte proliferation and upregulation of keratinocyte apoptosis in telogen hair follicles by stress and substance P. FASEB J..

The cascade of stress induced events indicated by hair loss can be arrested and reversed with the role of nutrients as indicated by scientific research.

### **Role of Nutrients in Stress**

 Stress escalates physiological demand for energy, oxygen utilization, cellular functions, requiring, enzymes, cofactors, catalysts and micronutrients.

Brody S, et al. (2002) A randomized controlled trial of high dose ascorbic acid for reduction of blood pressure, cortisol, and subjective responses to psychological stress. Psychopharmacology (Berl) 159:319-324.

Liu N, et al. Chronic restraint stress inhibits hair growth via substance P mediated by reactive oxygen species in mice. PLoS One. 2013;8(4):e61574.

Prie BE, et al. Oxidative stress in androgenetic alopecia. J Med Life. 2016;9(1):79-83.

- Stress causes loss of Mg through the urine hence increases magnesium requirement.
- Vit B5, pantothenic acid, called the 'anti stress' vitamin as it supports the adrenal glands.
- Vit B3, niacin deficiency impairs glucose oxidation, tissue respiration causing depression, confusion. Low Vit B-complex increase risk of stress, depression, lethargy, irritability.

 Secretion of antidepressants dopamine & nor epinephrine require phenylalanine & tyrosine metabolized only by Vit C.

# Nutrients that are required to counter stress and prevent hair loss are not available to us due to:

- Poor eating habits, weight watching, wrong choice of foods, wrong time of foods and loss of Nutritive Value of foods we eat.
- Food we eat today is lower in nutrients due to the severe soil depletion from over harvesting, use of fertilizers, pesticides, development of faster growing that allow less time to accumulate nutrients, high yield crops that divide the same nutrition into more number of fruits & vegetables, further affected by artificial ripening, storage and distribution. Researchers say the population suffers from hidden hunger. Adult Micro Nutrient Quality Index has been developed to study this malnutrition and nutritive foods cost more making them Income Elastic Protective Foods.
- As a result, food we consume is deprived of proper amount of nutrients. The only way we can attempt to solve the enormous problem of dangerous nutritional deficiencies that contribute or cause our health problems is by a regular intake of vitamins, minerals, micro-elements and antioxidants in the form of supplements and super foods. Wrongly combined nutrients can be detrimental; hence a systematic nutrient plan is required.

Indian National Science Academy (INSA) brought out a position paper on - Nutrition Security for India, Cerealpulse based diets are qualitatively deficient in micronutrients particularly iron, calcium, vitamin A, riboflavin and folic acid (Hidden Hunger)

Kawade R, Glob Health Action. Biometry & Nutrition Group, Agharkar Research Institute, Pune - Adolescent Micronutrient Quality Index (AMQI)

Tupe R, Chiplonkar SA, Diet patterns of lactovegetarian adolescent girls: need for devising recipes with high zinc bioavailability. Nutrition. Agharkar Research Institute, Pune-Income-elastic protective foods.

With only Nutritional Correction in Stress induced Hair loss, in 6 months 18% improvement in hair caliber and 23% improvement in hair density is seen without using any topical application.

Stress Bust hair fact kit is patented protocol which formulated to restore the body wellness, along with hair growth. All nutrition present; creates a conductive environment which help in improving cellular wellbeing.

Stress bust hair fact kit is balanced cyclic formulation of nutrients resulting in hair growth as well as improving metabolism. Results can be seen in 3-4 months.

> Available in Stress Bust 1 and Stress Bust 2 variants

HAIR FACT is only available with your Dermatologist / Plastic surgeon... HAIR FACT is not available online or with any etailer or retailer ... Please consult your Doctor for HAIR FACT



#### **PROVEN ... PUBLISHED ... PATENTED PROTOCOL**

- □ 100% results in all indications and grades.
- Creates a toxin-free nutrient environment for hair regrowth.
- □ Ensures results irrespective of causes.
- Absolutely safe for long term use.
- Benefits in overall well-being as well.
- Available across the US, Australia, New Zealand and Canada.
- With US FDA, Australian TGA and Health Canada Approvals.
- Being used by over 3000 professional practitioners.
- Benefitted more than a million patients across the globe.
- □ With over 12 international and national publications and trials, establishing minimum 30-40% hair regrowth for all.

