



hair
fact
Fluence Advanced Cyclical Therapy

Pro fact GLUCOSHIELD

THE NUTRITIONAL SUPPORT AGAINST
IMPAIRED GLUCOSE TOLERANCE AND
RISING INSULIN RESISTANCE



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

APPROVED BY

● US FDA ● HEALTH CANADA ● AUSTRALIAN TGA

Impaired glucose metabolism in younger population, is becoming a part of early skin manifestations in dermatological practice. Several research publications have drawn attention towards these emerging issues. We can now attend to the need of the hour, with a well planned, low dose, effective, safe, nutrition program. Skin manifestations of rising insulin resistance are acanthosis nigricans, psoriasis, androgenetic alopecia, PCOS, acne, hirsutism and hidradenitis suppurativa.

1. *González-Saldivar G, et al. Skin Manifestations of Insulin Resistance: From a Biochemical Stance to a Clinical Diagnosis and Management. Dermatol Ther (Heidelb). 2017;7(1):37-51.*
 2. *Napolitano M, et al. Insulin resistance and skin diseases. ScientificWorldJournal. 2015;2015:479354.*
 3. *Ucak S, et al. Comparison of various insulin sensitivity indices in psoriatic patients and their relationship with type of psoriasis. J Eur Acad Dermatol Venereol. 2006;20(5):517-522.*
-

Early onset androgenetic alopecia in men and women is an indicator for insulin resistance, which when left uncorrected, leads to type II diabetes and metabolic syndrome. High scores of HOMA-IR and FIRI suggest that male and female patients with early onset-AGA have insulin resistance.

1. *González-González JG, et al. Androgenetic alopecia and insulin resistance in young men. Clin Endocrinol (Oxf). 2009;71(4):494-499.*
 2. *Dharam Kumar KC, Kishan Kumar YH, Neladimmanahally V. Association of Androgenetic Alopecia with Metabolic Syndrome: A Case-control Study on 100 Patients in a Tertiary Care Hospital in South India. Indian J Endocrinol Metab. 2018;22(2):196-199.*
 3. *Mumcuoglu C, Ekmekci TR, Ucak S. The investigation of insulin resistance and metabolic syndrome in male patients with early-onset androgenetic alopecia. Eur J Dermatol. 2011;21(1):79-82.*
 4. *Ekmekci TR, et al. The presence of insulin resistance and comparison of various insulin sensitivity indices in women with androgenetic alopecia. Eur J Dermatol. 2007;17(1):21-25.*
-

Recognition of clinical signs and early correction with diet and nutrition is recommended to prevent the progress of the dermatological conditions, like AGA,

PCOS, psoriasis, leading to type II diabetes, cardiovascular effects and metabolic syndrome. These call for early detection and safe intervention, especially in the young.

Nutrition support has advantage in management of oxidative stress, diabetes, beyond hair growth, skin care:

Micronutrients have a role in management of insulin resistance and diabetes. Rising Insulin Resistance is sowing seed for metabolic disturbances and various diseases. Pancreatic cells have very low activity of free radical quenching enzymes, making them vulnerable to apoptosis from ROS. Oxidative stress is the main driver of insulin resistance and can be countered successfully with antioxidants.

Deficiencies of potassium, magnesium, zinc, chromium and vitamin D aggravate glucose intolerance. CoQ10 alleviates oxidative stress, preserves mitochondrial function & ensures better glycemic control.

1. Shen Q, Pierce JD. *Supplementation of Coenzyme Q10 among Patients with Type 2 Diabetes Mellitus. Healthcare (Basel).* 2015;3(2):296–309. Published 2015 May 21.
2. *Curcumin improves insulin resistance, hyperglycemia, hyperlipidemia, pancreatic islet cell apoptosis and prevents deleterious complications of diabetes.*
3. Zhang DW, Fu M, Gao SH, Liu JL. *Curcumin and diabetes: a systematic review. Evid Based Complement Alternat Med.* 2013;2013:636053.

Oxidative stress is the main driver of insulin resistance. Pancreatic cells have very low free radical quenching enzymes making them vulnerable to apoptosis from ROS. Deficiencies of potassium, magnesium, zinc, chromium and vitamin D aggravate glucose intolerance. Research studies have established the role of Oxidative stress & ROS in Diabetes and development of Insulin Resistance. Micronutrient deficiencies and benefit of antioxidants have also been reported with a caution that use of a combination of various nutrients is better than

high doses of a single nutrient and a warning that overuse of antioxidants could reverse the expected benefits, from overdose.

1. Psaltopoulou, T. et al. Dietary antioxidant capacity is inversely associated with diabetes biomarkers: The ATTICA study. *Nutrition, Metabolism and Cardiovascular Diseases*, Volume 21, Issue 8, 561 - 567.
2. Mooradian AD, Morley JE. Micronutrient status in diabetes mellitus. *Am J Clin Nutr*. 1987 May;45(5):877-95.
3. Opara EC. Oxidative stress, micronutrients, diabetes mellitus and its complications. *JR Soc Promot Health*. 2002 Mar;122(1):28-34.
4. Fridlyand LE, Philipson LH. Oxidative reactive species in cell injury: Mechanisms in diabetes mellitus and therapeutic approaches. *Ann NY Acad Sci*. 2005 Dec;1066:136-51.
5. Tiganis T. Reactive oxygen species and insulin resistance: the good, the bad and the ugly. *Trends Pharmacol Sci*. 2011 Feb;32(2):82-9.
6. Vassort G, Turan B. Protective role of antioxidants in diabetes-induced cardiac dysfunction. *Cardiovasc Toxicol*. 2010 Jun;10(2):73-86.

Diabetes is associated with immune dysfunction. Innate immunity is compromised in diabetes causing slow chemotaxis, affecting phagocytosis by PMN, macrophages and monocytes, which can be improved with a supply of immunoglobulins. Colostrum & Lactoferrin provide ready IgG, IgM, and also aid in the control of glucose levels, reduce insulin resistance and regulate dyslipidemias, resulting from impaired glucose metabolism.

1. Geerlings SE, Hoepelman AI. (1999), Immune dysfunction in patients with diabetes mellitus (DM). *FEMS Immunology & Medical Microbiology*, 26: 259-265.
 2. Jun Ho Kim, Wan Sik Jung, et.al. Health-promoting effects of bovine colostrum in Type 2 diabetic patients can reduce blood glucose, cholesterol, triglyceride and ketones. *The Journal of Nutritional Biochemistry*, Volume 20, Issue 4, 2009, Pages 298-303.
 3. J. M. Moreno-Navarrete, F. J. Ortega, et.al. Decreased Circulating Lactoferrin in Insulin Resistance and Altered Glucose Tolerance as a Possible Marker of Neutrophil Dysfunction in Type 2 Diabetes, *The Journal of Clinical Endocrinology & Metabolism*, Volume 94, Issue 10, 1 October 2009, Pages 4036-4044.
-

Curcumin & Lactoferrin improves immunity, cell function, insulin resistance, hyperglycemia, hyperlipidemia, dyslipidemia, ketones, pancreatic islet cell apoptosis and prevents complications of diabetes.

Studies in PCOS have determined the benefits of nutrients in the regulation of glucose metabolism, insulin resistance, lipid metabolism, hyperandrogenism and gene expression.

1. *Selimoglu H, Duran C, Kiyici S, et al. The effect of vitamin D replacement therapy on insulin resistance and androgen levels in women with polycystic ovary syndrome. J Endocrinol Invest. 2010;33(4):234–238.*
2. *Afshar EF, Foroozanfar F, et al. The Effects of Magnesium & Zinc Co- Supplementation on Biomarkers of Inflammation & Oxidative Stress & Gene Expression Related to Inflammation in Polycystic Ovary Syndrome: a Randomized Controlled Clinical Trial. Biol Trace Elem Res. 2018 Aug;184(2):300-307.*
3. *Rahmani E, Jamilian M, et al. The effects of fish oil on gene expression in patients with polycystic ovary syndrome. Eur J Clin Invest. 2018 Mar;48(3).*

Insulin resistance is sowing seeds for various diseases and health complications:

1. *Reaven GM: Banting lecture: role of insulin resistance in human disease. Diabetes 37: 1595–1607, 1988.*
2. *Facchini FS, Hua N, Abbasi F, Reaven GM: Insulin resistance as a predictor of age-related diseases. J Clin Endocrinol Metab 86:3574–3578, 2001*

Glucoshield offers the unique advantage of delivering benefits of proven effective nutrients in synergistic combinations that reduce the dosage but enhance the efficiency of one another, in rational proportions, without overdose, with long term safety of the care program. Glucoshield is an ideal companion in dermatology and trichology practice. The micronutrient supplements help in better glycemic control, reduce the effects of androgens, checking progression of the disease and preventing complications from effects on other organ systems.

**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.

