SCIENCE OF YOGA (HARMONES) ON DIABETICS

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Introduction: Pre diabetes is side effect of 20th Tecnological year. Control prediabetes precursor of type 2 diabetes ,is a valuable way to stop or post pond diabetes. By yogic approach, yoga activate the muscles improve peripheral glucose utilization , pranayama by breath regulation control oxidative stress ,meditation by control counter secretory hormones, are beneficial for good glycaemic control.

Yoga Exercises



Suryanamaskaram contains 12 poses that spent 14 calories per per round. Energy cost of units 6(MET), per round, also Improve blood circulation, heart health, results low cholesterol levels, reduce weight, calm&clear mind.Through brain signalling, finally makes the mind calm.

Yoga exercise by activation of muscles improve peripheral glucose utilization by GLUT4 reduce insulin resistance improve insulin sensitivity .

Storage of miocellular lipid,hepatic glycogen & free fatty acids were utilized for energy improve insulin receptors.

Pranayama



Pranayama,the regulated yogic breathing ,increase O2 supply,supress sympethetic activity, stimulates vagus nerve,reduce stress activities. Said to be inversly propotional to life time expectancy by lower metabolism

Yoga nitra

Yoga nidra results relax body and mind,promotes melatonin that reduce stress,associated with increased endogenous dopamine release in ventral stratum of brain.



Meditation

Meditation control stress by regulate counter secretary hormones glucogon, epinephrine, nor epinephrine, cartisol, growth harmone. Also control emotion and neuro physical health by modulate brain waves to alpha waves are use full for glycaemic control.



Induce active neuroplasticity,capacity of neurons to renew themselves. Meditation activate "default mode net work"of brain to cerebral repose, improve net work cicuits that de regulated in stress.

Yogic effect on Prediabetes

Aim: Evaluate value of Yogic approach otherwise called Life style management on Pre diabetes.

Methodology: 98 individuals were selected for the study, among them 52 were trained with yoga therapy other 46 were with usual regular habits. Both groups were advised to avoid any hypoglycemic drugs during the study period. After 10 months, all investigation parameters were repeated and compared with basal data.

Yoga Therapy: Group 1 were advised with vegetarian, easily digestible satvic food, not to consume more than 1800kcal approximately per day. Everybody trained with package of exercises from "Patanjali Fundamental Yoga Procedures" contains Suryanamaskar 10 mts, special asanas 5mts,Pranayama 5mts,relaxation10mts,meditation 10 mts total 40 mts per day.One day training was given to them ere advised to do regular practice at home.

Result: This comparative studies shows wonderful evidences regarding value of yogic approach among group 1 where as almost minimal changes

		Group 1 people with yoga			Group 2 people not yoga		
No	Test	Basal	After 6 month	Diff	Basal	After 6 month	Diff
1	Fasting glucose	109.35+_ 11.19	98.85+_ 6.08	10.5mgs	110.83+_ 10.94	108.12+_ 6.40.	2mgs
2	P.P. prandial	178.19+_ 14.30	158.11 +_ 9.2	20.8mgs	180.33+_ 11.4.	176.41+_ 9.05.	4mgs
3	HbAic	6.15+_ 0.4	5.29+_ 0.3	0.9%	5.94+_ .02	5,82 +_ 0.4.	0.1%

Discussion: Aim of this study evaluate the effect of yoga and meditation on Prediabetes.Yogic benefits in group 1,to control stress, shows reduction in fasting sugar 10.5 mg and post prandial sugar 20.8 mgs. Reduction of 0.9gm Hb A1c in group 1 emphasis improvement of insulin sensitivity and peripheral utilization, of glucose There was no marked improvement of glycemic level or HbA1c in group 2 not with yoga. The study shows that by reducing calorie intake by diet restriction, increase energy expenditure by physical exercise, stress control by meditation process useful to bring down glycemic level. Control prediabetes by reducing insulin resistance and improve insulin sensitivity may be useful to preserve the beta cells..

Conclusion;yogic approach on Pre diabetes. Defenetly reduce the glycaemic level to normal useful to stop or post pond diabetes.