

How practice of SKY Yoga and Meditation can control Type-II Diabetes

Presented by :

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Abstract

The aim is to implement SKY yoga based life style change for management of Type2 Diabetes which helps us to develop evidence for the effect of yoga in primary prevention (Prevent conversion of Pre-Diabetes to Diabetes) and to convert the diabetes to Pre-diabetes and Pre-diabetes to diabetes free. For this study we adapted the concept of Svyasa Stop Diabetes Movement. We will be considering two groups of people, where one will be actively practicing yoga and the other will be waiting group. We will make a comparison study of blood reports (HBA1C) before and after at the end of third month.

Objective of the Study:

To study the effect of SKY Yoga as a therapeutic approach to improve the quality of life in patients suffering from diabetes.

Introduction

Managing Diabetes is not just Science, Its an Art. Swamiji Vethathiri Maharishi's Simplified Kundalini Yoga (SKY) practices is a scientific methodology to handle psychosomatic disorders such as diabetes. In this study we will be observing the commonality of modern medicine concepts, Traditional yoga philosophy (according to SVYASA SDMPProject) with SKY Yoga practices. For this study we will be considering the following SKY Yoga practices, (1) Makarasanam (2) Kayakalpa (3) Nine Center Meditation (4) 5 limits in lifestyle management.

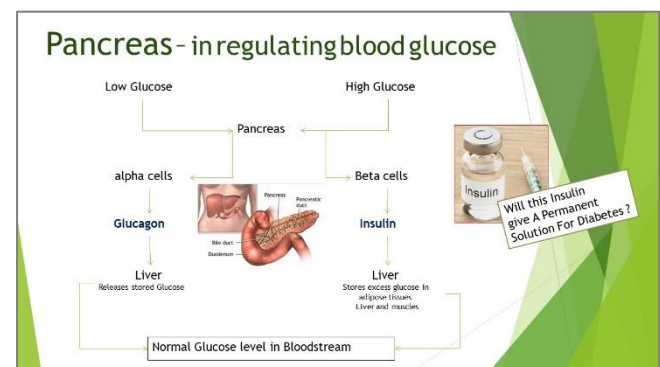
Diabetes Mellitus

Diabetes Mellitus (DM) is a chronic, lifelong condition that affects your body's ability to use the energy found in food. There are three major types of diabetes: type 1 diabetes, type 2 diabetes, and gestational diabetes. All types of diabetes mellitus have something in common. Normally, your body breaks down the sugars and carbohydrates you eat into a special sugar called glucose. Glucose fuels the

cells in your body. But the cells need insulin, a hormone, in your bloodstream in order to take in the glucose and use it for energy. With diabetes mellitus, either your body doesn't make enough insulin (Type 1 DM), it can't use the insulin it does produce (Type 2 DM). 5% of the total diabetic population is suffering with Type 1 DM. It occurs in younger age group generally below the age of 14 years. Type 2 DM accounts for about 95% of the total diabetic population.

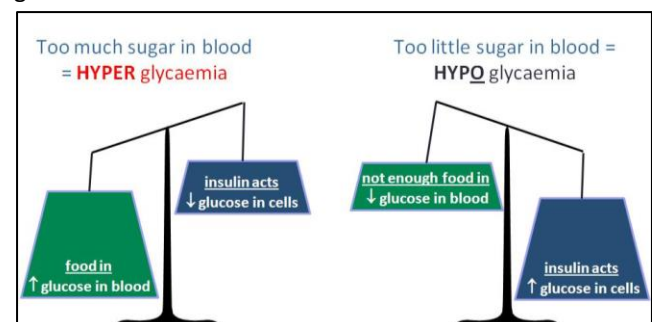
Regulation of Blood Glucose

The human body wants blood glucose (blood sugar) maintained in a very narrow range. Insulin and glucagon are the hormones which make this happen. Both insulin and glucagon are secreted from the pancreas, and thus are referred to as pancreatic endocrine hormones. The picture shows the intimate relationship both insulin and glucagon have to each other. Note that the pancreas serves as the central player. It is the production of insulin and glucagon by the pancreas which ultimately determines if a patient has diabetes or hypoglycaemia.



Diabetes Pathophysiology according to modern medicine

Glucose is a very important source of energy for functioning of cells in the body. It is very important that the cells are supplied with the right quantity of glucose. Cells do not function efficiently if there is too much or too little of glucose in the blood.



There are two major abnormalities that are responsible for the imbalance in glucose handling mechanism that lead to persistently high blood glucose.

1. Insufficient Insulin (Type 1 DM)
2. Insulin Resistance (Type 2 DM)

Insulin Resistance:

The role of insulin is to allow cells of the body to take in glucose to be used as fuel or stored as body fat. It also means that glucose is more likely to build up in the blood and this can lead to too high blood sugar levels. When the body becomes resistant to insulin, it tries to cope by producing more insulin. People with insulin resistance are often producing too more insulin than healthy people. This is the major reason amongst Indians that makes us more prone to Type 2 DM.

The main causes of insulin resistance may be overeating and increased body fat, especially in the belly area. Other factors include high sugar intake, inflammation, inactivity, and genetics.

So Type2 DM is also a lifestyle disorder. Food, Lifestyle and Mind plays a major role.

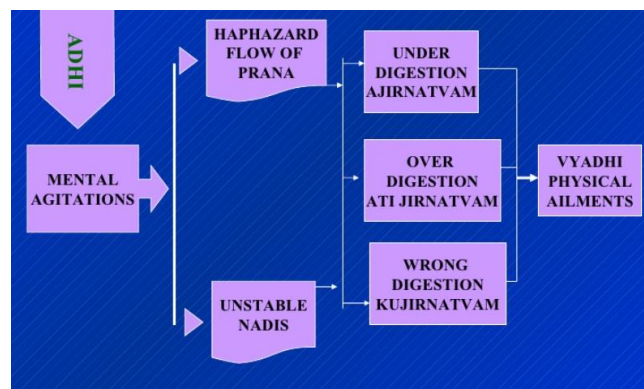
Psychosomatic aspects of Type 2 DM

Psychosomatic disorder is an illness that connects the mind and body. This occurs in such a way that the physiological functioning of the body is affected by the psychological tensions that either cause a disease or worsen the pre-existing disease in a person. It is also known as Psychophysiological disorder. An improper stimulation of the autonomic nervous system, which regulates the functions of the internal organs, is responsible for the evolution of this disorder and leads to impairment of the functional organs. The exact cause for the evolution of psychosomatic disorder is unknown. Studies reveal that the physical disorders associated with mental stress are due to the hyperactivity of the nerve impulses sent from the brain to the other parts of the body, which can cause the secretion of adrenaline into the blood, leading to a state of anxiousness.

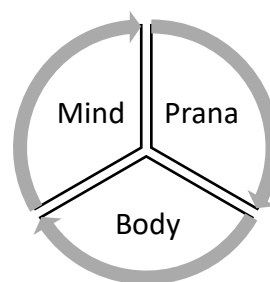
Traditional Yogic aspects of Type 2 DM

According to Yoga Vasistha, the lack of mastery over mind is the root cause of all the life style related non-communicable

diseases and diabetes in particular. Likes and dislikes have come to play at mind level and they govern our actions. It often channelizes the Imbalance between right and wrong. These imbalances amplify themselves resulting in mental illnesses called Adhi. At this stage there is no symptoms at physical level. Prompted by the perpetual growth of desires, these diseases concealed in the mind, begin to manifest themselves externally, in course of time they percolate into the physical frame. And that is called Vyathi.



This is nothing but Psychosomatic aspect as described by modern medicine. In summary, the yoga proposes that the entire problem is due to repetitive onslaught by uncontrolled thoughts (Suppressed emotions) at the mind level which causes excess prana activity and manifests as violence at Physical level and shoots up the Insulin Resistance and so diabetes.



- Mind : Dhyān
- Prana : Pranayama
- Body : Kriya, Asanas

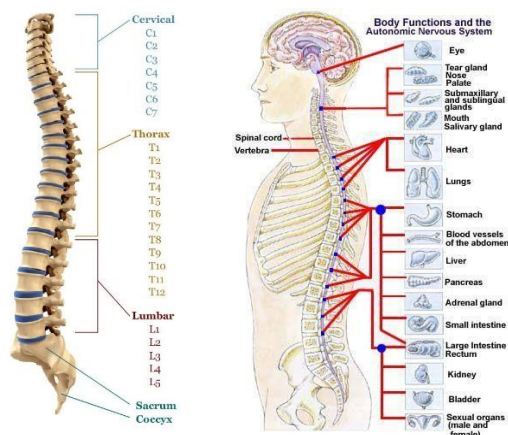
SKY Yoga Practices for Type 2 DM

SKY (Simplified Kundalini Yoga) Practices is the modern system of yoga which has the evidence with scientific concepts of modern medicine and the simplified form of the traditional yoga. The system was developed by Swamiji Vethathiri Maharishi with the aim of attaining world peace through Individual Peace. Individual peace is nothing but attaining the holistic wellness (Physical, Mental & Social). We will be using the few practices for study, such as

Makarasanam, Kayakalpam, Nine-Center Meditation and 5 limits Practice in lifestyle management.

Makarasanam:

Makarasanam is used to correct the misalignments in spinal column.



The quote of Hippocrates says **“Look well to the spine for the cause of disease”**. Nervous system connects the brain and the body organs. Spine and Nervous system are interrelated and connected to every aspect of our expression of health. Nerves exit the spinal cord through the holes in the vertebrae and branch out to communicate to muscles, vital organs, and every cell in the body. This is body’s information superhighway. The spine is made up of small bones (vertebrae) stacked along with discs one on top of another. Misalignment of the spine may cause compression of vertebrae, which in turn will compress the particular nerve. The organ connected to the nerve will be affected. Thus, a structure of the spine will determine the quality of health of each inner organ.

Makarasanam in Simplified Exercise developed by Swamiji Vethathiri Maharishi is a unique exercise which strengthens the spinal column. Each step in Makarasanam works on the particular vertebral column, top to bottom and bottom to top. Every twist will create pressure in each vertebra according to the gravitational force and with the support of muscles the misalignments are being corrected.

The Central Nervous system is disturbed if your mind is disturbed and vice versa. Long standing, persistent emotional surges and suppressions go on triggering the loop of the intense activity in the limbic cortex which find no time to rest. This excitement not only disturbs sympathetic and parasympathetic balance, but it hits the immune system

too. Practicing Makarasanam on daily basis, also helps to release stress blocks by fresh flow of energy in the nervous system.

Kayakalpam:

A living being is combination of three layers. Physical body, Life and Mind. Kayakalpa is meant for augmenting the life energy, which directs and co-ordinates every function of living system. Physiologically Aswini Mudra supports in Pelvic Floor muscle function. It stimulates the basal metabolic rate in the body. Thus it supports to balance the blood sugar. Kayakalpa is not just the Pelvic muscle function at body level. The earlier researches proves that Kayakalpa is the process of toning up the nerves and recycling rejuvenates the life force and builds up a resistance to the aging process.

Nine Center Meditation:

Swamiji Vethathiri Maharishi simplified the traditional Kundalini Yoga and formulated this NineCenter Meditation to **improve the functions of endocrine glands**. It involves the following centers (Chakras): Mooladhara, Swadhisthana, Manipuraga, Anahatha, Visuddhi, Agna, Thuriya, Shakthi Kalam and Shiva Kalam. Meditation is done on all the nine centers, seven of which are glands located within the physical body and Shakthi Kalam, Shiva Kalam are Universal field and Absolute space, respectively. Mind is a magnetic wave with self-rotating movement. The speed of mind is measured in terms of mental frequency. Scientists have discovered through the use of Electro Encephalograph (EEG) that the mind works at frequencies ranging from 1–40 cycles/sec. These frequencies have been classified into four. They are 1. Beta wave (14–40 cps), 2. Alpha wave (8–13 cps), 3. Theta wave (4–7 cps), 4. Delta wave (1–3 cps).

While practicing Nine center Meditation on daily basis the mind frequency is immunised between Theta and Delta level. So in one part endocrine glands are getting activated and in the other part by lowering the frequency of mind vital force is getting enhanced and the quality of body functions improve.

5 limits :

Life style plays a very vital role in handling today's non-communicable diseases. Swamiji Vethathiri Maharishi has provided a guidance of limits in Food, Work, Sleep, Sex and Thoughts.

According to the traditional yoga, the verses in Bhagwadgita also represent the same concept.

“yuktahara-viharasya yukta-cestasya karmasu yukta-svapnavabodhasya yogo bhavati dukkha-ha”

He who is temperate in his habits of eating, sleeping, working and recreation can mitigate all material pains by practicing the yoga system.

Limit in 5 and with the guidance of glycaemic indexed diet and exercise one can maintain the body BMI perfectly.

Methodology of the Program

Our Execution Model :

Phase 1 : Training and Screening

Phase 2 : Running camps

Phase 3 : Follow-up

Phase 4 : Reports

Training and Screening includes conducting Awareness Program & Counselling, Assessments and Lab Investigations Selection Process. Assessments includes Waist Circumference, Hip Circumference, BMI, IDRS (Diabetes Risk Score), and the blood tests includes FBS, PPBS, HbA1C.

Selection Process :

Inclusion Criteria for diabetes patients: Gender considered Both male and female between the age range: 20-60 years. People With or without Hypertension, With or without obesity, Those on oral hypo-glycemic agents, Those on insulin, Fit subjects who can follow the yoga protocol

Exclusion Criteria for diabetes patients: Those who are not able to follow the yoga protocol, H/o of Cardiac illness or any other major complication of diabetes which disables the person, H/o Major surgery in the past, H/o Tuberculosis, H/o Head injury, neurological or psychiatric disorder in the past

Running Camps :

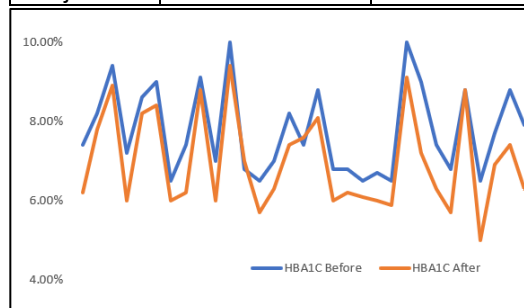
Grouping (Active Yoga group (20 to 25 nos.) and Waitlist Group(20 to 25 nos.)), Performing yoga sessions for 3 weeks (15 days), Comparison report (Yoga control and waitlist control).

Yoga Sessions :

- Body Cleansing
- Diet Guidance
- Yoga Asanas & Loosening Exercises
- Pranayama & Breathing Exercises
- Stress Management Through Yoga
- In addition, focused on SKY yoga practices

Results

Subjects	HBA1C Before	HBA1C After
Subject 1	7.4 %	6.2 %
Subject 2	8.2 %	7.8 %
Subject 3	9.4 %	8.9 %
Subject 4	7.2 %	6.0 %
Subject 5	8.6 %	8.2 %
Subject 6	9.0 %	8.4 %
Subject 7	6.5 %	6.0 %
Subject 8	7.4 %	6.2 %
Subject 9	9.1 %	8.8 %
Subject 10	7.0 %	6.0 %
Subject 11	10.0 %	9.4 %
Subject 12	6.8 %	7.0 %
Subject 13	6.5 %	5.7 %
Subject 14	7.0 %	6.3 %
Subject 15	8.2 %	7.4 %
Subject 16	7.4 %	7.6 %
Subject 17	8.8 %	8.1 %
Subject 18	6.8 %	6.0 %
Subject 19	6.8 %	6.2 %
Subject 20	6.5 %	6.1 %
Subject 21	6.7 %	6.0 %
Subject 22	6.5 %	5.9 %
Subject 23	10.0 %	9.1 %
Subject 24	9.0 %	7.2 %
Subject 25	7.4 %	6.3 %
Subject 26	6.8 %	5.7 %
Subject 27	8.8 %	8.8 %
Subject 28	6.5 %	5.0 %
Subject 29	7.7 %	6.9 %
Subject 30	8.8 %	7.4 %
Subject 31	7.9 %	6.3 %



Conclusion

Based on the results there is definite reduction in HBA1C after yoga practices in just three months.

Future scope

Type 2 DM is a continues problem in present day scenario. Sustainability of a lifestyle change is challenging factor. How only SKY yoga practices can help in sustainability in quality of life for a long time.