



DESCRIPTIVE STUDY ON SURYANAMASKAR IN YOGA – A STUDY WITH SPECIAL REFERENCE TO EFFECT ON TYPE 2 DIABETES

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Abstract:

Diabetes is a serious lifestyle ailment, a silent killer, which once in the body, opens the door to other serious illnesses like coronary diseases, blood pressure, cholesterol, neurological diseases, ulcer, infection in the mouth, lung disease etc. And the disease is not a new discovery; it has been afflicting the human body for over the past 2000-3000 years. This paper discusses the meaning of diabetes and how it can be controlled, with a proper diet and consistent practice of Surya Namaskar. Type 2 Diabetes is not a genetic disposition; it is acquired and daily practice of Surya Namaskar will bestow one with immunity from diseases, vitality, radiating health, physical beauty, mental equanimity, digestive power and spiritual alertness.

Keywords. Suryanamaskar, Diabetics, Yoga.

INTRODUCTION

Diabetes is lifestyle ailment, afflicting those living in the modern world, adopting a life which is anti-nature, devoid of any physical exercise. The disease is spreading almost like a famine; in fact it is not a disease, but a window to other more serious illnesses to come. It is imperative to understand what the exact meaning of 'Diabetes.' Knowing your problem is the pathway to a solution; similarly, knowing diabetes, its causes and means to control/prevent are essential lifesaving tools. Along with knowledge and a balanced diet, it is imperative to practice Surya Namaskar – an exercise regime based on the age old theory, meditation and postulates of the sages of India. It is a combination of yogasanas, Pranayama and the Mudras described in the 'Hatha Yoga' and the perfect mechanism for defending oneself from Diabetes.

WHAT EXACTLY IN THIS DIABETES?

This disease is known to mankind for over 2000 to 3000 years now. During the 'Vedic' culture there is mention of it as 'Madhumeha'. Description of the disease is found in the ancient texts of Egypt & Greece. The Greek physician 'Aretaeus' has named it 'Diabetes' during AD 2nd century. Diabetes is classically diagnosed as a failure of the body to metabolize carbohydrates properly. In order to convert glucose to energy, it is required to channelize glucose to the cells, which is 'mediated' by the insulin receptors. Insulin is released by the beta cells based on the amount of glucose reaching the blood. When the function of the beta cells fails, it leads to no or poor absorption of

glucose and consequently the sugar level in the blood shoots up. At the same time, glucose is not converted into energy, leading to extreme fatigue and weakness. The excess of sugar in the blood will be excreted through urine. The presence of this unchannelled glucose in the blood for a very long time affects the functioning of the body organs. Thus diabetes is known as a 'silent killer' as it brings along with it heart disease, high blood pressure, cholesterol, neurological diseases, ulcer, infection in the mouth, lung disease etc. Even in diabetes, there are two types – Type I and Type 2.

Type 1 Diabetes: It is a condition where the pancreas gland has completely failed and has stopped production of 'Insulin Hormone'. Five to ten percent of the diabetic patients belong to this category.

Type 2 Diabetes: It is considered as a lifestyle disease. 90 to 95% of the diabetic patients belong to this category.

HOW IS DIABETES MEASURED

Knowing one's systemic blood evaluation is extremely important for a diabetic patient as it is the level of glucose in the blood which could make or mar his/her life.

The blood is usually measured twice – first is the 'fasting' blood which is after 8-10 hours of food and second is the normal blood test but after two hours of a full meal.

BLOOD TEST

Blood test	Reference Range
Fasting Blood Sugar (8-10 hours after food)	70 - 100 mg
Blood Sugar (2 hours after full meal)	140 - 200 mg

If the level of blood sugar is above 126 mg in the test carried out at 8-10 hours after taking food or if it is above 200 mg in the test carried out after 2 hours of taking food, then it can be reasonably concluded that the person is a diabetic. In such a case repeat tests may be taken for confirmation and this is done through a HbA1c

[Hemoglobin1c] test.

HbA1c

HbA1c [Hemoglobin A1c] is the latest form of a blood test to ascertain the average of the last 3 months' level of blood sugar. Reference ranges are as given below:

3M average blood sugar	Reference Range
Normal	3.5 to 5.5%
Pre-Diabetic	5.6 to 6.4%
Diabetic	> 6.5 %
Controlled Diabetes	6 to 8%
Uncontrolled Diabetes	> 8 %

PRE- DIABETIC

In the pre-diabetic stage level of sugar present in the blood is above the normal. Here, fasting glucose level (taken 12 hours after food) will be between 101 to 125 or between 140 to 200 taken 2 hours after food. If the value obtained is either any one of these, it is called a pre-diabetic stage. This category of individual is prone to acquire Type 2 diabetes. Apart from genetic reasons, a leisurely lifestyle and excess fat in the body contribute to the pre-Diabetic stage. Most often, there would be no conspicuous symptoms but those mentioned in the category below are more prone to become diabetic.

- Obese people [Whose body mass index is above 25].
- Those who are above 40 years of age.
- Those who are hereditarily prone to Type 2 diabetes.
- Those who have Gestational diabetes [Diabetes during pregnancy].
- Those who have polycystic ovary syndrome [a hormonal disorder]
- Those who have excess cholesterol [mainly those who have HDL < 35]
- Those who have Triglyceride level above 250.
- Those who do not sleep more than 6 hours & 9 hours respectively.

It would indeed be the very fortunate and vigilant few who know that they are at a prediabetes stage. If diagnosed, they can either choose a healthy lifestyle and defend diabetes fully or lead an undisciplined lifestyle and slowly become a diabetic patient, accusing heredity and unfavourable life situations. Prediabetes patients are thus symbolically at a cross road – the road they choose to tread will determine their quality of life in the future.

OBESITY AND TYPE 2 DIABETES

Fifty-Five percent of Type 11 diabetic patients are with Body Mass Index (BMI) above 30. Another thirty percent are with Body Mass Index (BMI) between 25 and 30. Type 2 diabetes is found in only 15 percent of the people with BMI below 25. Diabetes is usually found in those people with excessive adipose fat. Such category of people will have difficulty in passing glucose into the cells

of their body. It is called insulin resistance. Because of this, the beta cells in the pancreas produce an insufficient quantity of quality insulin. This leads to Type 2 diabetes. Due to diabetes the waste removal system of the body slows down and if the diabetes is not controlled, invisible complications will begin to affect the body one by one. If the situation is not controlled for long, it will lead to the onset of high BP, heart ailment, neuropathy, retinopathy etc.

CONTROL OF DIABETES:

The idea is to ensure that we prevent and control and this can be achieved through a two-pronged strategy; Diet and exercise.

CONTROL THROUGH FOOD

Energy is received through the intake of food. Good health habits which are based on the personal lifestyle and our daily requirement of energy is an important method to prevent diabetes. All diabetic patients should follow a food regimen which consists of all essential nutrients. A balanced diet which includes protein, carbohydrate, fat, vitamins, minerals, fiber, and water should be consumed daily. Special care should be taken to consume the seasonal food varieties available in our geographical region of stay. Diabetes is directly linked to our food habits and if we have discipline in our food habits, we can control the blood glucose level effectively. As such we can segregate the food of diabetic patients into three.

- Food that can be taken freely.
All types of vegetables are included in this category.
- Food which has to be partaken in moderation.
Corn, fruits, dry fruits and nuts, tubers, cereals, milk, dairy products, etc.
- Food items that are prohibited.
Any food which is fried, flour, salt, sugar, fast food, bakery items, soft drinks, coffee, tea, Alcohol and Tobacco.

CONTROL THROUGH EXERCISE

Adequate and proper exercise helps in building a strong defense against diabetes. Any good exercise is a disciplined way of body movements which help us to achieve physical, mental, and spiritual growth and

improvement. An ideal form of exercise is that which should be able to reduce our mental tension and conflicts. The Indian concept of good exercise is one which makes the body light, improves the skill for work, enhances digestive power and which destroys obesity and illnesses. The exercise should be able to make the muscles strong and the body beautiful. An excellent example of an ideal exercise is the 'Surya Namaskar'.

SURYA NAMASKAR

'Surya Namaskar' is the ancient Indian system of exercise which can lead a person to a state of perfection through the path of physical, mental, and spiritual well-being. Surya Namaskar is done facing the rising sun, with an attitude of worship. In Indian mythology, Sun is considered as the visible God and as the symbol of the man's spiritual awareness. Accordingly, imbibing the spirit of Sun worship and combining a sequence of movements from Hatha yoga, consisting of Asanas, Bandhas, Mudras, the ancient Rishis of India have formulated a complete exercise program called "Surya Namaskar". As we are aware, it is through the active work of the Heart, the Lungs, and the Kidneys that the required oxygen and nutrients are carried to the cells of our body through blood. Likewise, waste products like carbon dioxide, and other poisonous substances are excreted out of the body. The immune system of a middle-aged man (40 to 65 years) will be functioning at a reduced capacity. This may be due to the past physical exertion or defects in the functioning of his internal organs. Proper exercise is the method to combat this. One who practices exercise in a disciplined manner will have a better immune system in his body. The white corpuscles in his blood will fight against the disease - causing organisms strongly and that person will be energetic and healthy. An ideal and complete exercise program should contribute to the physical, mental, and spiritual health of a person. It should bestow him with immunity from diseases, vitality, radiating health, physical beauty, mental equanimity, digestive power and spiritual alertness.

'Surya Namaskar' which was formulated by the Indian Rishis of Vedic times, is considered as an ideal exercise carrying all the above positive benefits. It is capable of igniting the latent spiritual powers in an individual.

BENEFITS OF SURYA NAMASKAR FOR DIABETIC PATIENTS

- The level of blood glucose comes under control.
- Excess fat in the body will be reduced and as a result body's power to produce insulin will be increased.
- Total body weight will be controlled.
- Cholesterol and Blood pressure will be under control.
- Bad cholesterol (LDL) gets reduced whereas good cholesterol will be increased.
- Functioning of the heart becomes more effective.
- Mental tension and conflicts are considerably reduced.
- A physical, mental and spiritual alignment will restore a sense of balance in life

CONCLUSION

The practice of good habits enables us to lead a healthy life till the end. Good habits are formed by leading a meditative life. One should try to practice 'Surya Namaskar' at the start of the day which will improve the quality of the whole day. Performed facing the Sun, the energy will infuse the body with fuel for the entire day while the calm and cool morning air will soothe the mind, giving a sense of calm equanimity throughout the day. 'Surya Namaskar' removes all the rigidity from our muscles after the long night's sleep and improves the circulation of blood, filling our nerves with energy. The cells get oxygenated and the skin gets rejuvenated. It also accelerates the conversion of glucose in the blood to energy and as a result, diabetes is prevented. In diabetic patients, there is no doubt that diabetes can be brought under control by consistent practice of 'Surya Namaskar'.

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