MANAGEMENT OF DIABETES THROUGH YOGA AND NATUROPATHY

Prof. (Dr.) Sohan Raj Tater

Former vice chancellor,

Singhania University, Rajasthan.

India is the diabetes capital of the world and doctors blame our increasingly sedentary lifestyle, bad food habits and lifestyle choices like smoking and drinking for the progression of this dreaded disease. But we know that India also has a method to treat this condition, sans all the ill effects of allopathic drugs. Yes, we can control diabetes with Naturopathy, here's everything we need to know about the form of medicine and what we can expect when we opt for Naturopathy as a way to control diabetes. In allopathy it is believed that a person suffers from diabetes because of the malfunctioning of the pancreas, but according to Dr Anjali Sharma, Senior Consultant, Naturopathy a person suffers from diabetes due to, 'pathological causes, hereditary factors, congenital problems, faulty lifestyle and the build-up of toxins in the body.'

(1) What is Diabetes Mellitus

Lack of physical labour, severe pressure of mental work and stress, faulty lifestyle and wrong dietary pattern are some of the factors that lead to Diabetes. In diabetes, the amount of insulin produced by pancreas is reduced quantitatively, which results in the increase of sugar in blood, and excess sugar eliminate outside through urine. Diabetes is considered as a life long disorder by modern medical science however, can be controlled and managed by changes in lifestyle and diet regulation, and Alternative System of Medicine- Yoga, Naturopathy, Ayurveda, Homeopathy, Unani and Home Remedy.

(2) Diabetes Symptoms

- > Sticky and concentrated urine.
- > Excess glucose leads to frequent urination.
- > Frequent hunger: to cope with high sugar, body produce insulin that lead to hunger
- > Unquenchable Thirst.
- > Dryness and infection in the skin.
- ➤ Weakness of eyesight: High Blood Pressure causes absorption of glucose that leads to change in eye lenses.
- Feeling of tiredness and weakness: Due to high Blood Pressure and irregular supply of sugar to brain and other organs of the body.
- ➤ Delay healing of wounds: High blood sugar hinder the proper functioning of White Blood Corpuscles (WBC).
- ➤ Itching..
- ➤ Weight fluctuation: fat and protein metabolism may lead to weight fluctuation.
- > Burning of Palms and soles.
- > Sweet taste to mouth.
- Drowsiness and Low sexual urge.

> Anemia, Constipation.

(3) Causes of Diabetes

- ➤ **Hereditary & Genetics**: Due to some genes transfer from parents to young ones.
- > Age: > 80% cases happen after 50 years and risk considerable rise after 65 years.
- > Nutritional Deficiency: Improper nutrition, low protein and fiber intake, high intake of refined products causes diabetes.
- Obesity and Fat Distribution.
- > Overeating.
- > Sedentary Lifestyle: more prone to diabetes.
- > Stress, Tension and worries: blamed as the preliminary factor of the disease.
- > Drugs like steroids, Dilantin, alloxan, streptozocin, and thiazide diuretics are known to induce diabetes.
- Excessive Use of Alcohol.
- > Insulin Deficiency and resistance.
- > Syndromes like Down's and Turner's may cause permanent diabetes.
- > Infection cause by Virus: i.e. Strephylococci affects the pancreas.
- > Sex: commonly with older aged male, and female with multiple pregnancies.
- **Hypertension:** close relationship with hypertension/High Blood Pressure and diabetes.
- > Increased cholesterol level.
- Diet rich in carbohydrate and fat.
- Excess intake of oil and sugar.
- ➤ High blood pressure.
- > Removal of the pancreas by surgery.

(4) Diagnosis of Diabetes

- Fasting Plasma Glucose (FPG) Test: To test pre-Diabetes and Diabetes where the patient asked not to eat anything for 8 hours. Most reliable when done in the morning.
- ➤ Oral Glucose Tolerance Test (OGTT): test blood glucose level after 8 hours of fast + after 2 hours of drinking glucose to diagnose diabetes and pre-diabetes.
- ➤ Random Plasma Glucose Test: When blood glucose level of 200 mg/dL or higher, means diabetes.
- Finger Stick Blood Glucose: Rapid screening test that may be performed anywhere.
- ➤ Glycosylated Hemoglobin Test: To measure high blood sugar levels that last for 120 days.
- > Physical Examination.
- Urine Sugar Test.
- Urine Ketones Test.
- C-peptide Blood Test.

(5) Complications of Diabetes

- ➤ Cardiovascular Disease: Increased blood sugar narrow down blood vessels and cause heart attack or stroke.
- **Kidney Problems**: High blood sugar put the kidney to work more and leads its disorders.
- ➤ Bladder Control Problems for Women.
- > Erectile Dysfunction.
- > Hypoglycemia (Low Blood Glucose).

- > Sexual and Urologic Problems.
- > Stomach Nerve Damage (Gastroparesis).
- > Eye diseases: diabetes narrow down retinal vein and causes Cataracts, Retinopathy and Glaucoma.
- ➤ Bone and Joint disorders.
- > Skin problems, digestive problems, and problems with teeth and gums.
- > Infections: Increased sugar level frail the immune system and become the factors for various infections.
- ➤ Nerve Damage(Neuropathy).
- Dental Problems.
- > Skin and Foot Disease.
- Diabetic Coma.

(6) Yoga for Diabetes Management

Yoga acts like a panacea for diabetes. Yoga provides an ideal cure for diabetes management. Yoga therapy is perceivably quick in the earlier stages and extremely beneficial after continuous practices for hyperglycemia. Yogic practices aim at restoring the health of the affected pancreas and help it to make up the deficiency of insulin secretion. Blood sugar is reduced significantly after Yogic treatment. And glucose tolerance is increased. Yoga improves the psychological makeup and general feeling of well being. Yogic treatment may control diabetes within 6 weeks. The following practices of Yoga are quite effective for type 1 diabetes, type 2 diabetes mellitus:

- > Sirsasana (Headstand pose) revitalizes the nervous centre and pituitary gland that is directly related with sugar control. Thus, significant and positive influence in relieving the condition.
- **Paschimotasana (Powerful pose)** tones up the pancreas, spleen and kidney. This Yoga pose helps to cure diabetes mellitus.
- ➤ **Veerasana** (**Hero's pose**) is conducive to physical and mental equilibrium thus relieves from feeling of tiredness and weakness.
- ➤ **Dhanurasana** (**Bow pose**) stimulates the pancreas and secrete correct amount of glucagon and insulin at the right time thus good remedy for the disorder.
- > Shalabhasana (Locust pose) aids in curing diabetes.
- **Katichakrasana (waist rotating pose)** helps to lower down the sugar level in the body and induces a wonderful feeling of lightness.
- > Ardha matsyendrasana (Half spinal twist pose) cure diabetes by lowering down sugar level in blood.
- ➤ Mayurasana(Peacock Asana): person suffering from diabetes find this asana very beneficial as it vigorously stimulates the metabolic process.
- > Bhujangasana(Cobra pose) stimulates the pancreas and helps in proper secretion of insulin
- > Uddiyan Bandha is good for overall functions of hormonal glands.
- ➤ Nauli (Navel String).
- ➤ Bhastrika Pranayama(Bellows Pranayama) improves digestion and helps to enhance overall function of the body.
- Naddishuddhi Pranayama.

- ➤ **Meditation** aids overall in lessening the signs and symptoms of Diabetes.
- > Surya Nmaskar(Sun Salutation) is also recommended to cure the disorder.
- ➤ **Relaxation techniques** like Shavasana, Makrasana and Balasana are too useful for type 1 diabetes.

(7) Ayurvedic Cure for Diabetes

The Ayurvedic treatment has greater application and importance in curing of it. Ayurvedic diabetic medicine and Ayurvedic herbs have the power to cure type 2 diabetes, type 1 diabetes, IDDM and NIDDM. Diabetic depression is not only common in the adult population, yet juvenile diabetes is also increasing day by day. The various components and mixtures of ayurveda are helpful in fighting the condition:

- ➤ Juice of bitter gourd or Rose apple, Bel and Neem may be taken on empty stomach daily. It is the best remedy for diabetes.
- > Turmeric is a useful remedy for it.
- ➤ Take twice a day before lunch and dinner, the mixture of 1/2 teaspoon of ground bay leaf + 1/2 teaspoon turmeric + 1 teaspoon aloe vera gel; control sugar in blood thereby effective for the problem.
- ➤ 100 gm grind seeds of Methi + turmeric 50gm + white pepper along with a glass of milk if taken twice a day is a natural remedy for such patients.
- Amalaki Churna (500mg) + Turmeric Powder (500mg) + Naag Bhasma (125mg) may be taken with honey to reduce blood sugar and helps pancreatic function.
- Take a glass of water with the extract of (10 Tulsi leaves + 10 neem leaves + 10 Belpatras) in the empty stomach reduces the content of sugar in blood.
- ➤ Copper vessel water in the morning is also useful.
- ➤ Bel leaves has anti-diabetic characteristic, take it's extract with black pepper.
- > Garlic contains allicin that reduces sugar level and helps in breaking of cholesterol.
- ➤ The leaves of Jamun have power to control conversion of starch into sugar and a good example of Ayurvedic cure of the disorder.
- > Onion has low sugar characteristics.
- > The other useful herbs that is beneficial for diabetes are: Jambhul, Gurmar, Sagar gota, Shilájit, Triphala, Gurmar Leaves, Nayantatra, and Sagar gota
- > Juice of leaf of bael up to 14-28 ml. may be taken with 5 to 10 gm. of honey three times a day. It is a beneficial remedy for diabetes mellitus.
- ➤ 12 gm. powder of bastard flower may be taken with 5 to 10gm. raw sugar thrice a day. It helps to lower blood sugar.
- ➤ 14 to 28 ml. fruit juice of embelic myrobalan and same quantity of turmeric juice to be taken thrice a day to get positive result.
- ➤ Powder of stem of Indian Sarsaparilla-1 part + Tamala leaf -1 part + and root of glycyrrhiza -1 part to be taken in 1 gm. dose with 50 to 100 ml. water twice a day.
- ➤ Decoction of equal parts of barks of white acacia + khair + nut of areca-14 to 28 ml., to be taken thrice a day.

(8) Homeopathic Medicine for Diabetes

Homeopathy has complete say in curing of diabetes. Homeopathy as such has a vital role to play in the cure and management of diabetic patients. Diabetic patients who go for

homeopathy get rid of the life-long disease. Homoeopathy can be used effectively in the treatment of Hyperglycemia.

- **Phosphorus**: to stabilize blood sugar levels.
- > Syzygium Jambolanum: reduces level of sugar immediately, use 5 drops of it after every 6 hours.
- **Aurum Metallicum**: reduces craving for sugar with the patients.
- **Uranium Nitricum**: improves nephritis problems.
- > Arsenicum Bromatum: normalize excessive thrust and hunger, common with the disorder
- > **Insulinum:** helps to improve the functioning of pancreas
- ➤ Phosphoric acid has remarkable power to cure diabetes in the early stage.
- Lactic acid is a good remedy for such patients.

(9) Unani for Diabetes Mellitus

Unani strongly believes the total cure of Diabetes is possible through energizing the pancreatic cells.

- The oil of black pepper, fennel, and juniper has a restoring and rejuvenating effect on the pancreas.
- Insulin stimulant oils are carrots, eucalyptus, fennel, geranium and lemon oils.

(10) Naturopathy for Diabetes

Diabetes, being a nutritional disorder, characterize by an abnormally elevated level of blood sugar and excretion of excess glucose through urine. It results from lack of insulin which leads to abnormalities in carbohydrate metabolism as well as metabolism of protein and fat that leads to type1 diabetes and type2 diabetes. Nature cure has the power to control diabetes at the earliest.

- > Mud Therapy is beneficial for hyperglycemic patients.
- ➤ **Hydrotherapy**: Hot and Cold Fomentation over abdomen, Cold hip bath, Hot and cold hip bath, Wet abdomen pack, spinal bath. All these form an important part of treatment. Enema thoroughly cleansed the colon and helps the bowel to assume normal characteristics.
- ➤ Bathing in cold water greatly increases the circulation and enhances the capacity of the muscles to utilize sugar.
- ➤ Massage Therapy helps to energizes and revitalizes the whole body.
- > Sun Bath: Water kept in brown bottle and exposed to sun rays for at least 8 hours in half cup, dose twice a day after meal is also found beneficial.
- Exercise, especially morning walk a good remedies diabetic patients.

(11) Amazing Home Remedies for Diabetes.

➤ Bitter gourd is the most important home remedy in controlling diabetes. Bitter gourd contains hypoglycaemic which cure type 2 diabetes and type 1 diabetes. ½ cup of bitter gourd juice in the morning is one of the best remedy for it.

- ➤ Bengal gram (Chana) is good for chronic diabetes. Bengal gram show good result in glucose tolerance and urinary excretion.
- Use bitter melon in your diet to control blood sugar level.
- ➤ Drink 1 cup of fenugreek (Methi) juice every morning to bring down glucose level. It has been found very effective in the treatment. It reduces reactive hyperglycemia, glucose, serum cholesterol and tryglycerides in the patients.
- Indian gooseberry and orange contain vitamin C, quite beneficial for the patients.
- Indian gooseberry and bitter gourd juice stimulate the pancreatic cells and reduce blood sugar.
- > 5 mango leaves + 1 glass of water left for overnight, drink after filter to reduce sugar level.
- > Grapefruit is a splendid food for the patient.
- > Take curry leaves twice a day for good result.
- Take before lunch and dinner about ½ tsp each of ground bay leaf + turmeric + aloe vera gel; good to fight it.
- ➤ Honey + turmeric powder + dried gooseberry powder to show blood sugar level down.
- ➤ Diabetic patients should chew 4-5 Jambul fruit (Jamun) leaves in the morning and evening. It is an effective home remedy for diabetes.
- > Chew 2 leaves each of Neem and Bilva to minimize the impact of the condition.
- > Overnight drenched almond is also useful.
- Leaves of Basil + Neem + Belpatras + 1 glass of water help to cure it.
- > Diabetic patients should take apple juice.
- > Use of Garlic, Karela, Onion, Soybean, should be abundant in diet to overcome sugar level.
- > Drink more water in the morning before exercise.
- > Juice of Margosa leaves is helpful in controlling it.
- > String bean pod tea is an excellent natural substitute for insulin and valuable in such condition.

(12) Diet Plan for Diabetes

The diet of a diabetic patient is utmost importance. The goal of a diabetic diet is to avoid any surges in the blood glucose by maintaining ideal body weight through proper nutrition. The patients should follow three meals and three snack pattern in their diet plan. The main aim of diabetic diet is to maintain blood sugar level (70-140 mg/dl), cholesterol level (200 mg/dl) and blood pressure (120/80 mm Hg). The diet schedule for such patient are as follows:

- ➤ Morning: Bitter gourd juice 1-2 ounce (40 ml)
- ➤ **Breakfast:** Skimmed M ilk (250-400ml) or Butter milk or Sprouted gram, Moong, Methi approx. 50 gm or Fresh Amla juice 50 ml
- ➤ Lunch: Roti(wheat + gram flour) 25-50 gm, green vegetables 250gm, Salad 50gm, Moong 25 gm Curd 150gm + 1 glass butter milk
- **Evening:** Roasted gram 30 gm, Vegetable soup or 1 glass butter milk
- **Dinner:** As in lunch but use of curd is not advisable at night.

(13) Best Fruits for Diabetes

Some of the most beneficial food for diabetic patients is given below. Some foods are also to avoid as these may cause heart disease and increase high blood pressure :

- Fresh fibrous fruits and vegetables are useful.
- Soyabean, Bean, Turnip, Cucumber, garlic, Lauki, Bitter gourd, Spinach, Fenugreek, Bathua, Chaukie, Amla, Jamun, Bel, , cabbage, tomato and carrot.

(14) Foods to Avoid in Diabetes

- > Cakes.
- Fast and junk foods.
- > Jaggery.
- > Ghee.
- Butter.
- Cold drinks.
- Biscuits
- > Dried fruits like badam.
- ➤ Oil for cooking.

(14) Preventions for Diabetes

With the help of regulated diet, alternative system of medicine and proper module of exercise; diabetes can be controlled and managed to a larger extent:

- > Avoid sugary substances /products completely.
- > Use of junk, oily, fried and fat enriched foods should be avoided.
- > High fibrous food should be preferred.
- > Avoid non-veg.
- Avoid ghee, Vanaspati, fine flour, smoking, chewing of Jarda and Gutka.
- ➤ Keep yourself away from stress as it is the root of many diseases.
- > Frequent and excessive eating put you in danger.
- > Apathy for exercise may put you in danger.
- ➤ Do healthy physical exercise along with Yoga and meditation.
- > Diabetic Lifestyle (Ayurveda Diabetes Treatment).
- Skip sleeping at day time.
- Avoid alcohol.
- > Avoid smoking.
- > Take care of your ENT parts.
- > Follow exercise regularly.
- Do Yoga.
- > Take extra care of your food.
- Make your dietary chart.

- (1) CDC.gov "National Diabetes Statistic Report, 2014" Center for Disease Control and Prevention online article.
- (2) Ludwig DS. The Glycemic Index: Physiological mechanisms Relating to Obesity, Diabetes and Cardiovascular Disease. JAMA, 2002; 2414-2423.
- (3) Tyagi A, Cohen M. Yoga and hypertension: a systematic review. Altern Ther Health Med. 2014 Mar-Apr; Vol. 20(2), Pg. 32-59.
- (4) Balaji PA, et al. Effects of yoga pranayama practices on metabolic parameters and anthropometry in type 2 diabetes. International Multidisciplinary Research Journal 2011, 1(10): Pg. 01-04.
- (5) Sodhi V. Ayurvedic Herbs: The Comprehensive Resource for Ayurvedic Healing Solutions. Book Publishers Network, Bothell, WA; 2014.
- (6) R. Shukla S. Singh, and C. R. Bhandari, "Preliminary clinical trials on antidiabetic actions of Azadirachta indica," Medicine, Surgery, 1973; 13:11–12.
- (7) A. Waheed, G. A. Miana, and S. I. Ahmad, "Clinical investigation of hypoglycemic effect of seeds of Azadirachta indica in type-2 (NIDDM) diabetes mellitus," Pak J Pharm Sci., Oct. 2006, 19(4):322–325.
- (8) S.K. Bhattacharya, et al., "Effect of Ocimum sanctum, ascorbic acid, and verapamil on macrophage function and oxidative stress in mice exposed to cocaine," Indian J Pharmacol., June 2009, 41(3):134–139.
- (9) S. Singh and D.K. Majumdar, "Evaluation of anti-inflammatory activity of fatty acids of Ocimum sanctum fixed oil," Indian Journal of Experimental Biology, 1997, Vol. 35(4):380.
- (10) V.S Baldwa, et al., "Clinical trial in patients with diabetes mellitus of an insulin like compound obtained from plant source," Upsala Journal of Medical Science, 1977, 82:39–41.
- (11) Inayat-ur-Rahman, et al., "Serum sialic acid changes in non-insulin-dependant diabetes mellitus (NIDDM) patients following bitter melon (Momordica charantia) and rosiglitazone (Avandia) treatment," Phytomedicine, May 2009,16(5):401–405.